SYLLABUS

1. **Number & Name: 11:117:100 – INTRODUCTION TO BIOENVIRONMENTAL ENGINEERING**

2. **Credits and contact hours:** 1 credit, 1-50 min. lecture period per week

3. **Instructor**: Christopher G. Uchrin, and other guest lecturers

4. **Text:** None

5. **Specific Course Information**

   a. Catalog Description: *Overview of specializations within bioenvironmental engineering. Expanding role of biological and environmental sciences in engineering. Analysis of selected problems. Review of professional opportunities.*

   b. Prerequisites: None

   c. Course Type: Required 5-year students

6. **Course Goals**

   a. Specific Instructional Outcomes: Students will be versed in the various career opportunities available in bioenvironmental engineering from practitioners in the field. Students will obtain an understanding of professional responsibility and ethics. Students will obtain an awareness of the need for professional registration and continued development through the participation in professional societies.

   b. Specific Student Outcomes addressed by the course include:

   f. Understanding of professional and ethical responsibility
   Instructional Activity: Students attend lecture on engineering ethics
   Assessment Activity: Two questions are on final exam

   i. Recognition of the need for, and ability to engage in life-long learning
   Instructional Activity: Eight presentation are made by practicing environmental engineers focused, in part, on the need to become active in professional societies and stay current in the field
   Assessment Activity: Attendance is mandatory and contributes to final grade.

j. Knowledge of contemporary issues
Instructional Activity: Eight presentation are made by practicing environmental engineers focused, in part, on contemporary and topical projects.
Assessment Activity: Each lecturer provides questions for the course final exam.

7. Topics (Preliminary schedule, subject to change):

Lecture	Topic	Lecturer
1	Introduction	Dr. Uchrin, P.E.
2	Waste Management & BEE Curriculum	Dr. Krogmann, P.E.
3	Hazardous Waste Engineering	Dr. Huang
4	Remediation	Dr. Fennell
5	Stormwater Engineering	Dr. Obropta, P.E.
6	Air Pollution Engineering	Dr. Miskewitz
7	Professionalism & Ethics	Dr. Uchrin, P.E.
8	Energy	Dr. Both, P.E.
9	Consulting Engineering	BEE Alumnus
10	Consulting Engineering	BEE Alumnus
11	Final Exam	

Grading:		
	Attendance	50%
	Term Essay	25%
	Final Exam	25%

Term Essay: Each student is required to write and submit a short (2 page max.) essay, due at the final exam, addressing the following:

1. What is the source of the water I use at home?
2. Where and how is it treated?
3. Where does the wastewater go and how is it treated and disposed?

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