

EVEG 2000 – Environmental Engineering I

Instructor

Kofi Christie, Ph.D.

Email

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Office Location

3240F Patrick Taylor
Hall

Office Hours

Wednesdays, 4:00-
5:00pm (and by
appointment)

Class Time and Location

Tuesdays and
Thursdays, 3:00-
4:20pm,
1735 Business
Education Complex

Catalog Statement

Basic principles of calculations in environmental engineering; overview of professional ethics; regulations, and multimedia aspects of environmental problem solving with emphasis on fundamental concepts and definitions.

Course Overview

This is an introductory course designed exclusively for environmental engineering students. It focuses on structured problem solving using appropriate units and unit conversions, logic, and the material balance approach. It also includes an overview of major environmental engineering subject areas and professional development issues (professional licensing procedures and requirements, engineering ethics). The course is offered at an early stage in the sophomore year to ensure student exposure to the methodology, problems, and subject areas found in environmental engineering while they are completing basic courses outside of engineering. The emphasis on structured problem solving is intended to prepare students for the calculations and problems encountered in other classes that follow in the curriculum.

Learning Objectives

1. Students will learn basic engineering calculations and be able to apply them to a multitude of environmental engineering problems.
2. Students will develop an understanding of what an environmental engineer is/does and be able to identify areas in which they work.
3. Students will learn tools for design/analysis of systems (i.e., ability to perform mass balances)
4. Students will gain a basic understanding of data analysis tools and computer skills (i.e., use of spreadsheets) in solving problems
5. Students will develop critical assessment skills which will help prepare for life-long learning.

Pre-Requisites

CHEM 1202 (General Chemistry II), MATH 1550 (Calculus I)

Required Textbook

Masters, G. M., Ela, W. P. (2008). *Introduction to Environmental Engineering and Science*. Upper Saddle River, NJ: Prentice-Hall.

Other Useful Textbooks

Mihelcic, J. R., Zimmerman, J. B., Auer, M. T. (2014). *Environmental Engineering: Fundamentals, Sustainability, Design*. United Kingdom: Wiley.

Davis, M. L., Masten, S. J. (2019). *Principles of Environmental Engineering and Science*. United Kingdom: McGraw-Hill Education.

Course Policies and Grading

Moodle will be used as the primary method for disseminating assignments and other course materials. Class attendance and punctuality are expected. No make-up exams will be given unless prior arrangements are made (or existing accessibility/disability accommodations are approved by the university). Sharing calculators during exams will not be allowed. Late assignments will receive half credit, at most. All homework must be presented neatly with the final answer clearly identified. *All work must be shown, and assumptions should be explicitly stated.* The instructor reserves the right to curve grades when appropriate. The final exam in the class is scheduled for Tuesday, December 6, from 5:30-7:30pm. It will be comprehensive.

Assignment Weighting:		Letter Grade	Numerical Grade
Homework	15%	A	90-100
Exam 1	15%	B	80-89.9
Exam 2	15%	C	70-79.9
Quizzes, Attendance, Participation	25%	D	60-69.9
Final Exam	30%	F	Below 60
Total	100%		

Classroom Civility

Students are expected to assist in maintaining an environment that is conducive to learning. To create an environment in which learning is the primary objective, students should refrain from posting, sharing, sending, or emailing inappropriate material. All methods of interaction should be used to communicate effectively with one another and further enhance the student's educational experience. Students should be dressed appropriately and conducting themselves in a professional manner during class sessions. In general, treat the instructor and other class members with respect.

LSU Diversity Statement

We believe diversity, equity, and inclusion enrich the educational experience of our students, faculty, and staff, and are necessary to prepare all people to thrive personally and professionally in a global society. Therefore, LSU is firmly committed to an environment that affords respect to all members of our community. We will work to eliminate barriers that any members of our community experience.

To make LSU a place where that can happen, we must recognize and reflect on the inglorious aspects of our history. We now acknowledge the need to confront the ways racism, sexism, ableism, ageism, classism, LGBTQ+ phobia, intolerance based on religion or on national origin, and all forms of bias and exploitation have shaped our everyday lives.

We accept personal and professional responsibility to eliminate bias and oppression wherever they are found. We understand our obligation to speak up when we see bias whether it be in our teaching, study, or daily work. Our community will educate themselves proactively and continuously about how to intervene and bring bias to the attention of others with commitment and compassion.

We will hold ourselves accountable for our actions and inactions, and for maintaining intentional, measurable, and meaningful efforts to enhance diversity, equity, and inclusion, including through ongoing evaluation of our policies, practices, and procedures.

Support Services

Louisiana State University offers a variety of student services to help make students be successful both in and out of the classroom. If you need assistance, please note the following resources are available.

- [Career Services](#) – 158 LSU Student Union, 225.578.2162
- [Center of Academic Success](#) – B31 Coates Hall, 225.578.2872

The Center for Academic Success offers free resources to help students increase their academic performance. Content specific-support includes tutoring, Supplemental Instruction (twice weekly, peer-led study sessions), and Shell Study Groups (informal study sessions facilitated by trained peer tutors). For help developing learning strategies, managing time, and increasing test performance, one-on-one Academic Coaching and strategy workshops help students plan their path toward academic success in all their classes.

- [College of Engineering Counselors](#) – 2228 Patrick F Taylor, 225.578.5731
- [Student Health Center](#) – 225.578.6271
- [Tiger Trails Bus Service](#) – Tiger Trails LSU bus service provides free transportation around Baton Rouge. Download the TransLoc app for real-time bus locations.
- [LSU Food Pantry](#) – 1st Floor LSU Student Union, 225.578.8000

The mission of the LSU Food Pantry is to provide supplemental food to students in need who may experience hunger or food insecurity.

- [LSU Cares](#)

LSU Cares is a university initiative dedicated to the well-being of students and promotion of a community that cares about each of its members.

- Office of Disability Services

If you have a disability that may have some impact on your work in this class and for which you may require accommodations, then see a staff member in the Office of Disability Services (112 Johnston Hall) so that such accommodations can be considered. Any accommodation requests must be submitted via email during the first 2 weeks of class.

Tentative Schedule (subject to change)

Introduction, Units	8/23/22 – 8/25/22
Chemical Processes	8/30/22 – 9/27/22
Quiz 1	9/1/22
Exam 1	9/29/22
Physical Processes	9/29/22 – 11/1/22
Exam 2	11/3/22
Biological Processes	11/7/22 – 12/1/22
Final Exam	12/6/22