CHEM 110 – Environmental Chemistry – Fall 2017

T & R 9:40 – 11:00 (Period B), Sam Mather 202

Instructor: Vivian Ezeh (Tomsich Hall 314, ezehv@kenyon.edu, 17404275355)

Office hours: Mon & Wed 11 am – noon, Tues & Thurs 1 – 2 pm or by appointment

Our world is made up of chemical species in a delicate balance. In this class, we will learn about the chemical components and dynamics of our environment. We will also explore the effects and/or consequences of modern living and technological advances. Topics include the environmental impact of burning fossil fuels, ozone depletion, the greenhouse effect and the toxicology of heavy metals & pesticides. As a class, we will also manage an ammonia monitoring station on campus and use the data obtained to learn about data management, graphing and visualization.

Course requirements:

Textbooks: 1) An Introduction to Environmental Chemistry by J. E. Andrews; et. al. 2nd ed.
2) 21st Century Chemistry by K. Waldron.
3) Scientific calculator

Moodle: A Moodle page will be maintained for the course. Visit the page for class notes, readings for class, assignments, announcements etc.

Assessment: Final grades for the class will be based upon your mastery of the materials and your demonstration of that ability on all assignments. Letter grades at the end of the semester will be assigned using the following scale: A+, A, A-: 100 – 88%; B+, B, B-: 87 – 75%; C+, C, C-: 74 – 60%; D+, D, D-: 59 – 50%; F: < 50%. The instructor reserves the right to assign whatever final grade is deemed appropriate. Grades will be based on the following distribution:

Participation	10%	NH_3 monitoring class project	10%
Homework sets and Quiz	10%	Exam 1	25%
Exam 2	25%	Final exam	20%

Participation: For the first half of the semester (**09/05 – 09/28**), the participation exercise is to collate and share stories of technological advancement that are beneficial to the environment. To participate, individuals or teams (max = 2) should submit a link to their story on the Moodle site and give a brief summary of the story in class. For the second half of the semester, the participation exercise is a short summary (max = 100 words each) of 2 articles that I will make available in class. Write the summary on a Google docs and share with me by **11:59 pm** on **Nov 29th 2016**.

NH_3 monitoring class project: Sponsored by the Kenyon College teaching grant, an ammonia monitoring station was setup on campus over the summer. As a class, we will manage this station and get some experience with environmental research and data management. To contribute to the success of this project; there are project tasks, reading assignments, graphing & visualization workshop that will be carried out. More information will be provided in class.

Homework sets & Quiz: Practice questions will be assigned after most class as a study aid but will not be graded. To check that you understand the concepts there will be a 10 min quiz on the following dates: **09/05, 09/12, 09/19, 09/26, 10/17, 10/24, 10/30, 11/07**.

Exams: There will be two in-class exams on **Oct 3rd** and **Nov 30th**. The exam will take place during our class period and will cover materials learned up to that point.

Final exam: A cumulative final exam will take place on **Dec 12th 2017** at 6:30 pm. The exam can only be rescheduled with the permission of the Associate Provost, plan accordingly.

MSSC: The Math-Science skill center is open S, T & R 7-10 pm.

Important class policies:

Attendance: Attendance at all class meeting is expected. Excessive and unexplained absences will lead to a lower grade and could result in dismissal from the course. Please, inform me if you must miss a class and make appropriate arrangements to stay current with the course. If you must miss class for excused absence such as family or medical emergency or a scheduled sporting event, inform the Dean of academic advising and me as soon as possible. To be considered for extension on academic work, a notice from the Dean will be required.

Excused absence: A make-up of midterm exam or extension on assignments will be granted if you are ill and your name appears on the *Excused Absence List* from the Dean's office. If your participation in athletics or extra-curricular activities conflicts with midterm exams or an assignment due date, please inform me as soon as possible. Arrangements will be made for you to submit your assignment or write your exam before your absence.

Academic accommodation: Students who anticipate they may need accommodation in this course because of the impact of a learning, physical or psychological disability are encouraged to contact Erin Salva (salvae@kenyon.edu, 740-427-5453), Director of Student Accessibility and Support Services. Early contact will help avoid unnecessary inconvenience and delays.

Academic Honesty: All work turned in for credit must adhere to the principles of academic integrity (see Academic Honesty and Questions of Plagiarism in the Course Catalog). Copying colleague's texts, not citing source materials are examples of incidences that could potentially violate academic integrity. Potential violations will be forwarded to the Academic Infractions Board for adjudication, as is required by University policy. If the ethical implication of any situation is not clear, do ask me for clarification.

Bias/Discrimination/Harassment: Kenyon College seeks to provide an environment that is free of bias, discrimination and harassment. If you have experienced sexual harassment/misconduct/assault, interpersonal violence or stalking we encourage you to report it. If you report the incident to a faculty member, they must notify Kenyon's Title IX coordinator of any information about the incident you provide. Kenyon College's title IX and VAWA policy is available at: http://www.kenyon.edu/directories/offices-services/title-ix/policy/