

# Environmental Chemistry

## CHEM 4351, CRN# 33026

Course Syllabus, Spring 2021

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<b>Instructor:</b>	Dr. Kristin Dooley
<b>Office:</b>	Manion Hall 201C
<b>Phone:</b>	(501) 450-5940 (Forwarded to my cell)
<b>Email:</b>	<a href="mailto:kdooley@uca.edu">kdooley@uca.edu</a>
<b>Office Hours:</b>	T and R: 10:40-1:30 Other times by appointment
<b>Lecture</b>	TR 9:25-10:40 am (Virtual Meeting) Always meet in Blackboard Collaborate Ultra Room
<b>Required Text:</b>	<i>Environmental Chemistry: A global Perspective</i> (4 <sup>th</sup> Ed.) by Gary W. vanLoon and Stephen J. Duffy

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**Course Description** This course is an upper-division elective for chemistry majors and minors, and a required course for the chemistry track of the Environmental Science program.

**Prerequisite** A grade of C or better in CHEM 3411 (Organic Chemistry II) and CHEM 3520 (Quantitative Analysis).

**Grading** Your grade in this course will be based on your work in four categories: **Exams, Assignments, Discussions, Participation, and Poster Project**. These categories are discussed in detail below.

Grade disputes concerning scores on specific assignments or exams should be addressed promptly. After the assignment has been returned, the student has one week to bring the question to my attention. After that time, the grade on the assignment or exam will not be changed.

<b>Point Distribution</b>	<b>Category:</b>	<b>Portion of Final Grade:</b>
	<b>Exams</b>	3 @ 100 Points Each 300 Points
	<b>Assignments</b>	Approx 4-6 @ 20 Pts each Varies (Between 80 and 120)
	<b>Discussions</b>	6 @ 30 Each 180 Points
	<b>Poster Project</b>	150 Points Total 150 Points
		<b>TOTAL: 710-750 Pts</b>

**Grading Scale**    **Grades will be based on percentage of points earned:**  
A: >90%, B: 80-89%, C: 70-79%, D: 60-69%, F: <60%

**Course Exams**    This course will be divided into three main sections (atmosphere, hydrosphere, and lithosphere). You will have three **exams** throughout this course, one at the end of each of these three sections. The exams will test your ability to discuss the topics in both qualitative and quantitative manners. Material for the exams will come from the required text, supplemental handouts (including journal articles discussed), and course notes.

The approximate exam dates are as follows (these are subject to change):

Exam 1: Atmosphere	February 23	Chapters: 1-8
Exam 2: Hydrosphere	March 30	Chapters 9-16
Exam 3: Lithosphere	April 27	Chapters 17-21

Exams will most likely be completed as take-home exams with a 24-48 hour window. Although I expect you to use your own resources, use of someone else's notes or help on the test will be considered cheating. If this is even suspected, the exams will move back to a timed, no notes activity administered through Blackboard's Lockdown Browser with Monitor.

**Assignments**    Several **assignments** will be given throughout the semester that are intended to help you practice the more quantitative aspects of the material. Most of these assignments will come from book problems. The assignments will be worth 20 points each, and you should expect 1-2 of them per topic. The amount of grading on these assignments will vary. In some cases, only spot checking will occur, while others will be graded more for correctness.

**Discussions**    Environmental Chemistry is an ever-changing field. While there are basic concepts and material to learn, there is also a wealth of NEW information that is just now being understood and published. Therefore, I want to focus us on the current literature and discussing the implications of new research.

Discussions will be done as a mixture of in-class (live) and online (through discussion threads on Blackboard). There will be 6 grades total in this area. Each discussion assignment will span 2 weeks, and you will be expected to present one paper during this time and respond to your peers. I will give more information in the class meeting concerning the details.

The quality of this course depends on the quality of the discussions that we have. I can require you to do a minimum, but in the past, these articles have really fueled some great discussions, and I think that it is a great way to enhance our on-line only version of the course.

Discussion grades will be negatively impacted if a student is overly aggressive or disruptive during a discussion. Disrespectful comments directed towards anyone in the class will not be tolerated. I reserve the right to remove a student (along with their grade) from a discussion if needed.

**Poster Project** The course will also include a **literature poster project** where each student will use published articles to explore the current experiments of one research group whose work is centered on an environmental chemistry problem. The poster project will include recent work by that particular group and should provide perspective on that group's impact in the Environmental Chemistry community. The project will culminate in an online poster presentation at the end of the semester likely during the last week of class or during our scheduled final exam time. The public will be invited to attend. You will each have an opportunity to present your poster to your peers and others in attendance. You will be graded not only on your poster, but also on your ability to discuss the topic you have chosen as though you performed the research. In addition to the poster session at the end of the semester, there will be several preliminary deadlines throughout the semester to ensure you are on track with finishing.

**Blackboard** The content of this course will be delivered entirely through our course shell in Blackboard. We will meet for class through Blackboard Collaborate Ultra.

**Office Hours** These will most likely all be virtual meetings in the open classroom in Collaborate Ultra. However, if the pandemic permits, we may be able to meet in very small groups in the study rooms downstairs. Although I will be ready to help during the posted times, please contact me so that I know to join you in the classroom. I will not just be hanging out in the open classroom during those times.

I know that there will be students that cannot come to my office hours due to time conflicts. There is also no way to predict when you will need help. You are welcome to schedule a time to stop by that works better for you. Just contact me (even the morning of the day you can come), and I would be happy to try to accommodate your schedule.

**Classroom Policies**

Attendance: Students who regularly miss class are rarely successful. It is the student's responsibility to obtain the information/ assignments/ handouts covered during an absence. You should watch lecture recordings if you must miss.

Academic Honesty: Cheating and plagiarism are not tolerated! The penalties for cheating will be severe. The smallest penalty being a failing grade on the assignment which will not be able to be made up or redone. While I encourage you to work on assigned problems with a group if you like, the work that you turn in should reflect your own problem solving style and should never be exactly the same as a classmate's or a solution manual's style of setting up and solving a problem. More severe penalties will be issued when deemed appropriate by the instructor. (See University Policies, below.)

Makeup Policy: Makeup and early exams will be given only in extreme circumstances (as decided by me). You must contact me via email or phone BEFORE the exam time, as soon as the conflict arises. If there is a medical or

family emergency, contact me as soon as possible (email or call) after you realize that you will not be at the exam. In most cases, you will be required to take the exam early.

**Cameras:** Thursdays will be reserved for discussions. Although I would welcome your camera on during my lecture times as well, seeing faces is critical to having good discussions. Therefore, you will be expected to use a camera on Thursdays. Your discussion points will be affected if you refuse to participate during our in-class portions of the assignment.

**University Policies**

**Americans with Disabilities Act** The University of Central Arkansas adheres to the requirements of the Americans with Disabilities Act. If you need an accommodation under this Act due to a disability, please contact the UCA Office of Disability Support Services, 450-3613.

**Academic Integrity** The University of Central Arkansas affirms its commitment to academic integrity and expects all members of the university community to accept shared responsibility for maintaining academic integrity. Students in this course are subject to the provisions of the university's Academic Integrity Policy, approved by the Board of Trustees as Board Policy No. 709 on February 10, 2010, and published in the Student Handbook. Penalties for academic misconduct in this course may include a failing grade on an assignment, a failing grade in the course, or any other course-related sanction the instructor determines to be appropriate. Continued enrollment in this course affirms a student's acceptance of this university policy.

**Course Evaluations** Evaluations are kept completely confidential. Your thoughtful feedback is highly valued and cannot negatively or positively affect your course grade. Over the years this information has changed and improved the instruction of this course. Student evaluations of a course and its professor are a crucial element in helping faculty achieve excellence in the classroom and the institution in demonstrating that students are gaining knowledge.

Students may evaluate courses they are taking starting on the Monday of the thirteenth week of instruction through the end of finals week by logging in to myUCA and clicking on the Evals button in the top right.

**Emergency Procedures** An Emergency Procedures Summary (EPS) for the building in which this class is held will be discussed during the first week of this course. EPS documents for most buildings on campus are available at <http://uca.edu/mysafety/bep/>. Every student should be familiar with emergency procedures for any campus building in which he/she spends time for classes or other purposes.

**Title IX Disclosure** If a student discloses an act of sexual harassment, discrimination, assault, or other sexual misconduct to a faculty member (as it relates to "student-on-student" or "employee-on-student"), the faculty member cannot maintain complete confidentiality and is required to report the

act and may be required to reveal the names of the parties involved. Any allegations made by a student may or may not trigger an investigation. Each situation differs and the obligation to conduct an investigation will depend on those specific set of circumstances. The determination to conduct an investigation will be made by the Title IX Coordinator. For further information, please visit: <https://uca.edu/titleix>. \*Disclosure of sexual misconduct by a third party who is not a student and/or employee is also required if the misconduct occurs when the third party is a participant in a university-sponsored program, event, or activity.

#### Other Policies

Students are encouraged to familiarize themselves with all policies included in the Student Handbook, particularly the Sexual Harassment Policy, and all Academic Policies.