

# University of North Texas at Dallas

## SPRING 2024

## SYLLABUS

BIOL 4120: Environmental Chemistry 3Hrs			
Department of	Natural Sciences	Division of	Liberal Arts and Sciences
Instructor Name:	Dr. Muhammed Yousufuddin		
Office Location:	DAL2 252		
Office Phone:	972-338-1528		
Email Address:	<a href="mailto:myousuf@untDallas.edu">myousuf@untDallas.edu</a>		
Office Hours:	T: 8-10 am and Th: 8-10 am		
Virtual Office Hours:	N/A		
Classroom Location:	NA		
Class Meeting Days & Times:	NA		
Course Catalog Description:	Presents a scientific overview of environmental contaminants, their occurrence, sources and impact on humans and the environment		
Prerequisites:	CHEM 1410/1430 and CHEM 1420/1440 or consent from the department		
Co-requisites:	None		
Required Text:	Environmental Chemistry (Baird and Cann 5 <sup>th</sup> Edition)		
Recommended Text and References:	N/A		
Access to Learning Resources:	UNT Dallas Library: phone: (972) 338-1616; web: <a href="http://www.untDallas.edu/our-campus/library">http://www.untDallas.edu/our-campus/library</a> UNT Dallas Bookstore: phone: (972) 780-3652; e-mail: <a href="mailto:1012mgr@fhg.follett.com">1012mgr@fhg.follett.com</a>		

<p><b>Supported Browsers:</b></p> <p>Chrome 67 &amp; 68</p> <p>Firefox 60 &amp; 61</p> <p>Flash 29, 30 (for audio/video)</p> <p>Respondus Lockdown Browser</p> <p>Safari 10, 11</p> <p><b>Supported Devices:</b></p> <p>iPhone</p> <p>Android</p> <p>Chromebook</p> <p><i>(Tablet users can use the Canvas app)</i></p> <p><b>Screen Readers:</b></p> <p>VoiceOver (Safari)</p> <p>JAWS (Internet Explorer)</p> <p>NVDA (Firefox)</p> <p><i>Note: There is no screen reader support for Canvas in Chrome</i></p>	<p><b>Getting Help with Canvas:</b></p> <p><b>Canvas 24/7 Phone Support for Students: 1-833-668-8634</b></p> <p><b>Canvas Help Resources:</b></p> <p><b>Web:</b> <a href="#">Canvas Student Guide</a></p> <p><b>For additional assistance, contact Student Assistance (Distance Learning):</b></p> <p>Founders Hall, Rm 124 phone: (972)338-5580 email: <a href="mailto:distancelearning@untDallas.edu">distancelearning@untDallas.edu</a></p> <p><b><i>If you are working with Canvas 24/7 Support to resolve a technical issue, make sure to keep me updated on the troubleshooting progress.</i></b></p> <p><b><i>If you have a course-related issue (course content, assignment troubles, quiz difficulties) please contact me during office hours or by email.</i></b></p>
<b>Course Goals or Overview:</b>	
	To give students an understanding of environmental concepts as explained by chemistry. This course is intended for students majoring in Biology and minoring in Chemistry.
<b>Learning Objectives/Outcomes:</b> At the end of this course, the student will	
1	Be familiar with the chemistry of air, water, and toxic materials as well as how anthropogenic activities affect this chemistry
2	Have examined the sources, reactions, transport effects, and fates of chemical species found in air and water
3	Demonstrate familiarity with alternative fuel sources and alternative technologies
4	Be able to describe current fuel sources and the environmental issues related to these
5	Develop core skills such as: communication and writing
6	Develop problem solving skills such as: critical thinking, data analysis, graphical analysis

## Course Outline

This schedule is subject to change by the instructor. Any changes to this schedule will be communicated in class.

TOPICS	TIMELINE	Other deadlines
Chapter 1: Stratospheric Chemistry	Week of 1/15/24	HW 1/Reading Check Intro/Discussion 1
Chapter 3: Chemistry of Ground-Level Air Pollution	Week of 1/29/24	HW 3/Reading Check Essay
Chapter 4: Environmental and Health Consequences of Polluted Air	Week of 2/12/24	HW 4/Reading Check Discussion 2
Chapter 5: The Greenhouse Effect	Week of 2/26/24	HW 5/Reading Check Journal Assignment
Chapter 6: Energy use, Fossil Fuels...Etc.	Week of 3/11/24	HW 6/Reading Check Discussion 3/ <b>Midterm</b>
Chapter 7: Biofuels and Other Alternative Fuels	Week of 3/25/24	HW 7/Reading Check Disc.4/Presentations
Chapter 8: Renewable Energy Technologies	Week of 4/8/24	HW 8/Reading Check HW 9
Chapter 12: Toxic Heavy Metals	Week of 4/22/24	HW 12/HW 13&15 Disc.5/Reading Check
<b>Final Exam</b>	<b>Week of May 6<sup>th</sup></b>	

## Course Evaluation Methods

This course will utilize the following instruments to determine student grades and proficiency of the learning outcomes for the course.

### Grading Matrix:

Instrument	Value (points or percentages)	Total
Exams	Midterm/Final 200 pts each	400
Discussions	6 (various points)	100
Homework	10 @ 10 pts ea	100
Reading Checks	8 (various points)	100
Essay/Literature review	100 pts ea	200
Presentation	100 pts	100
<b>Total:</b>		<b>1000</b>

### Grade Determination will use the following guidelines:

A = 1000 - 900 pts; i.e. 90% and up

B = 899 - 800 pts; i.e. 80-89 %

C = 799 - 700 pts; i.e. 70-79%

D = 699 - 600 pts; i.e. 60-69%

F = 599 pts or below; i.e. less than 60%

## **University Policies and Procedures**

**Statement on Artificial Intelligence:** UNT Dallas acknowledges the evolving capabilities of Artificial Intelligence (AI) technologies and their various effects on student writing and content creation. The Department of Natural Sciences takes a use-with-permission approach to AI.

Students are only permitted to use AI technology in the creation of any course content if permitted by the course instructor. If the use of AI technology is detected, without specific instructor permission, the student will be deemed in violation of the plagiarism policy.

**Students with Disabilities (ADA Compliance):** The University of North Texas at Dallas makes reasonable academic accommodation for students with disabilities. Students seeking accommodations must first register with the Disability Services Office (DSO) to verify their eligibility. If a disability is verified, the DSO will provide you with an accommodation letter to be delivered to faculty to begin a private discussion regarding your specific needs in a course. You may request accommodations at any time, however, DSO notices of accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of accommodation for every semester and must meet/communicate with each faculty member prior to implementation in each class. Students are strongly encouraged to deliver letters of accommodation during faculty office hours or by appointment. Faculty members have the authority to ask students to discuss such letters during their designated office hours to protect the privacy of the student. For additional information see the Disability Services Office website at <https://www.untdallas.edu/disability>. You may also contact them by phone at 972-338-1777; by email at UNTDdisability@untdallas.edu or at Founders Hall, room 204. (UNT D Policy 7.004)

**CoursEval Policy:** Student's evaluations of teaching effectiveness is a requirement for all organized classes at UNT Dallas. This short survey will be made available to you at the end of the semester, providing you a chance to comment on how this class is taught. I am very interested in the feedback I get from students, as I work to continually improve my teaching. I consider students' evaluations to be an important part of your participation in this class.

**Assignment Policy:** According to the instructor's discretion while working in concert with the division/program's guidelines).

**Exam Policy:** Exams should be taken as scheduled. No makeup exams will be allowed except for documented emergencies (See Student Handbook).

**Academic Integrity:** Academic integrity is a hallmark of higher education. You are expected to abide by the University's code of Academic Integrity policy. Any person suspected of academic dishonesty (i.e., cheating or plagiarism) will be handled in accordance with the University's policies and procedures. Refer to the Student Code of Academic Integrity (Policy 7.002) at

[https://www.untdallas.edu/sites/default/files/page\\_level2/pdf/policy/7.002%20Code%20of%20Academic\\_Integrity.pdf](https://www.untdallas.edu/sites/default/files/page_level2/pdf/policy/7.002%20Code%20of%20Academic_Integrity.pdf)  
Refer to the Student Code of Student Rights, Responsibilities and Conduct at

[https://www.untdallas.edu/sites/default/files/page\\_level2/hds0041/pdf/7\\_001\\_student\\_code\\_of\\_conduct\\_may\\_2014.pdf](https://www.untdallas.edu/sites/default/files/page_level2/hds0041/pdf/7_001_student_code_of_conduct_may_2014.pdf) Academic dishonesty includes, but is not limited to, cheating, plagiarizing, fabrication of information or citations, facilitating acts of dishonesty by others, having unauthorized possession of examinations, submitting work of another person or work previously used without informing the instructor, or tampering with the academic work of other students. In addition, all academic work turned in for this class, including exams, papers and written assignments must include the following statement: *"On my honor, I have not given, nor received, nor witnessed any unauthorized assistance that violates the UNTD Academic Integrity Policy."*

**Bad Weather Policy:** Campus facilities will close and operations will be suspended when adverse weather and/or safety hazards exist on the UNTD campus or if travel to the campus is deemed dangerous as the result of ice, sleet or snow. In the event of a campus closure, the Marketing and Communication Department will report closure information to all appropriate major media by 7 a.m. That department will also update the UNTD website, Facebook and Twitter with closing information as soon as it is possible. For more information please refer to <http://www.untdallas.edu/police/resources/notifications>

**Attendance and Participation Policy:**

The University attendance policy is in effect for this course. Please refer to Policy 7.005 Student Attendance at <http://www.untDallas.edu/hr/upol>

**Diversity/Tolerance Policy:** Students are encouraged to contribute their perspectives and insights to class discussions. However, offensive and inappropriate language (swearing) and remarks offensive to others of particular nationalities, ethnic groups, sexual preferences, religious groups, genders, or other ascribed statuses will not be tolerated. Disruptions which violate the Code of Student Conduct will be referred to the Dean of Students as the instructor deems appropriate. (UNTD Policy 7.001)