

ENVS 489
Air Pollution Control
Courses Syllabus: Fall 2024

Instructor: Dr. Lin Guo

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Phone: 903-886-5371

Classroom: Science building 252

Office location: Science building 252

Office hrs: MW 9-10 am; 12-2 pm

Fax: 903-886-5997

Time: 8/26/24-12/13/24

Text Book: No book is required. The links to teaching materials are provided in D2L

Course Description: As a comprehensive course, it introduces the effects of air pollutants on human beings and environment, the sources of air pollution, and the physical and chemical behavior of pollutants in the atmosphere. Also, it covers legislation and regulation; control technologies and future trends toward preventing air pollution.

Instructional Method: **The course will be blended.** Meeting time will be from 9-10 on MW in science building 252.

Learning Objectives: Upon completion of this course you should be able to:

1. Describe current air pollution issues;
2. Know the main air pollutants and its effect on human health and environment;
3. Understand the regulations and policies to manage air pollution;
4. Have a knowledge of technologies used to control and remove air pollutants

Evaluations:	2 tests	200 points	A \geq 90%
	1 Term-paper	200 points	B \geq 80%
	2 small articles	200 points	C \geq 70%
	Discussions	100 points	D \geq 60%
	Total	700 points	F<60%

Tests: Exam 1 **Nov 1**; Exam 2 **Dec 1**.

Term-paper: Select a topic related to air pollution (e.g; sustainable energy; indoor air quality, etc) and write a term paper; In this paper, you will need to introduce the development of the topic; Use 12 pt font, 1.5 line spacing; Number your pages (more than 4 pages); Due on or before 5 pm on **Dec 1**;

Small articles: you need to read find journal articles from library, read it and submit a brief review. The review should be typed (12 pt font, 1.5 line spacing) and include two full paragraphs. First, conclude the opinions of the article (about one half to one page). In the second paragraph (about one half to one page), please critique of the article with substantive or evidence-driven arguments for or against the opinions of the article. **The topics of the articles will be related to global climate change and outdoor air pollution.** The first paper is due on or before 5 pm on **Sep 30**; the other is due on or before 5 pm on **Nov 30**. Any paper that is not properly referenced will receive a zero.

Discussion: Participate in the online discussions. Post your own questions and thoughts. **Post at least one comment to each question** posed by the instructor. Your level of participation - both quantity and quality - is part of your participation grade. Discussions will open for one week. It will **close at midnight of Friday**.

All the assignments are expected to be submitted on time. If you are not able to submit your assignment before deadline, please discuss the situation with the instructor in advance.

Topics: Week 1: Control Program History;

Week 2: Environmental Effects of Air Pollution;

Week 3: Transport and Dispersion of Air Pollution

Week 4: Indoor Air

Week 5: The United States Clean Air Act

Week 6: Ambient Air Quality Monitoring

Week 7: Measurement of Pollutant Emissions

Week 8 Emissions Inventory; **Exam 1**

Week 9: Control of Stationary Source Emissions (PM)

Week 10: Control of Stationary Source Emissions (Gaseous)

Week 11: Control of Mobile Sources

Week 12: Pollution Prevention

Week 13 Apr 5-9: Laws and Regulations

Week 14: Compliance and Enforcement

Week 15 -16: Calculations related to air pollutants and **Exam 2**

Attendance

The teaching/learning materials will be posted in D2L. Students can access to those materials anytime. However, all the assignments are expected to be finished on time. Again, if you have troubles to do those assignments on time, please discuss the situation with the instructor timely.

University Procedures:

“A&M-Commerce requires the use of face-coverings in all instructional and research classrooms/laboratories. Exceptions may be made by faculty where warranted. Faculty have management over their classrooms. Students not using face-coverings can be required to leave class. Repetitive refusal to comply can be reported to the Office of Students’ Rights and Responsibilities as a violation of the student Code of Conduct. “

“Students should not attend class when ill or after exposure to anyone with a communicable illness. Communicate such instances directly with your instructor. Faculty will work to support the student getting access to missed content or completing missed assignments.”

Students with Disabilities:

The Americans with Disabilities Act (ADA) prohibits discrimination against people with disabilities in employment, transportation, public accommodation, communications, and governmental activities.

If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services, Texas A&M University-Commerce

Gee Library- Room 132

Phone (903) 886-5150 or (903) 886-5835 Fax (903) 468-8148 Email: Rebecca.Tuerk@tamuc.edu

Website: Office of Student Disability Resources and Services

<http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/>

TAMUC Attendance:

For more information about the attendance policy please visit the Attendance webpage and Procedure

13.99.99.R0.01. <http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx>

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99.R0.01.pdf>

Academic Integrity:

Students at Texas A&M University-Commerce are expected to maintain high standards of integrity and

honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the following procedures:

Undergraduate Academic Dishonesty 13.99.99.R0.03

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf>

Graduate Student Academic Dishonesty 13.99.99.R0.10

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/graduate/13.99.99.R0.10GraduateStudentAcademicDishonesty.pdf>

Nondiscrimination Notice:

Texas A&M University-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

Student Conduct:

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the Student Guidebook.

<http://www.tamuc.edu/admissions/registrar/documents/studentGuidebook.pdf>

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum: Netiquette <http://www.albion.com/netiquette/corerules.html>

Early Intervention for First Year Students:

Early intervention for freshmen is designed to communicate the University's interest in their success and a willingness to participate fully to help students accomplish their academic objectives. The university through faculty advisors and mentors will assist students who may be experiencing difficulty to focus on improvement and course completion. This process will allow students to be knowledgeable about their academic progress early in the semester and will provide faculty and staff with useful data for assisting students and enhancing retention. Grade reports will be mailed by the end of the sixth week of the semester.

Campus carry rules:

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed

handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations. For a list of locations, please refer to (<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf>) and/or consult your event organizer). Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

Technology Requirement

D2L Access and Log in Information

This course will be facilitated using D2L, the learning management system used by Texas A&M University-Commerce. To get started with the course, go to myLeo, then select Apps, and then select myleo online (D2L Brightspace).

You will need your campus-wide ID (CWID) and password to log into the course. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or helpdesk@tamuc.edu.

If you are having technical difficulty with any part of D2L Brightspace, please contact Brightspace Technical Support at 1-877-325-7778.

Interaction with Instructor Statement

If you have questions pertaining to the content of this course, please contact me via email. Generally, emails will be answered within 24 hrs. If I can not answer emails on time, I will let you know in advance.

AI Statement

Texas A&M University-Commerce acknowledges that there are legitimate uses of Artificial Intelligence, ChatBots, or other software that has the capacity to generate text, or suggest replacements for text beyond individual words, as determined by the instructor of the course.

Any use of such software must be documented. Any undocumented use of such software constitutes an instance of academic dishonesty (plagiarism).

Individual instructors may disallow entirely the use of such software for individual assignments or for the entire course. Students should be aware of such requirements and follow their instructors' guidelines. If no instructions are provided the student should assume that the use of such software is disallowed.

In any case, students are fully responsible for the content of any assignment they submit, regardless of whether they used an AI, in any way. This specifically includes cases in which the AI plagiarized another text or misrepresented sources.

13.99.99.R0.03 Undergraduate Academic Dishonesty

<https://inside.tamuc.edu/aboutus/policiesproceduresstandardsstatements/rulesprocedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf>

13.99.99.R0.10 Graduate Student Academic Dishonesty

<https://inside.tamuc.edu/aboutus/policiesproceduresstandardsstatements/rulesprocedures/13students/graduate/13.99.99.R0.10.pdf>