

ENVS 406 01E Environmental Remediation



ENVS 406 01E Environmental Remediation

COURSE SYLLABUS: Spring 2024

Tue, Thurs 11:00a-12:15p *Campus: Main Building: EDS Room: 121*

INSTRUCTOR INFORMATION

Instructor: [Dr. Naima Khan, PhD.](#)

Office Location: [Science Building \(STC\), 233](#)

University Email Address: Naima.Khan@tamuc.edu

COURSE INFORMATION

Materials – Textbooks, Readings, Supplementary Readings

Textbook(s) Recommended: [Title: Basic Environmental Technology – Water Supply, Waste management, and Pollution Control; 6th Edition](#)

Year: 2015

Title status: [Available](#)

Imprint: [Pearson](#). Author: [Jerry A. Nathanson and Richard A. Schneider](#)

ISBN: 0-13-284014-6

Software Required: [MS Office](#)

Optional Texts and/or Materials: [Handouts and Academic worksheets](#)

Course Description

ENVS 406 01E Environmental Remediation: A detailed survey of the various methods used in the remediation of contaminated sites; review of federal and state regulations; chemistry of hazardous materials; responding to incidents involving the release of toxic substances; selection of remedial technology; and design of remedial plans.

Instructional Method: [The course is in class \(face to face\).](#)

Student Learning Outcomes

Learning Outcomes:

After successfully completing this course, the student will be able to:

1. Learn and comprehend the fundamental principles of remediation processes, and acquire profound knowledge, after researching on the latest remediation technologies.
2. Acquire precise information for correct decision-making skills.
3. Learn specific measures for personal protection techniques from hazardous chemicals.

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4. Learn the names and chemical compositions of hazardous chemicals.
5. Learn, be aware, and ready to respond to accidental spills and similar incidents.
6. Learn about disaster preparedness.
7. Perform calculations to design and size treatment facilities and disposal for hazardous chemicals.
8. Sketch and size the layout of treatment processes for hazardous chemicals.
9. Calculate the dosage of chemicals for treatment of hazardous chemicals

1. **Critical Thinking:** Students will be able to differentiate between fact and opinion; be able to discern between relevant and irrelevant information, recognize bias in source material, and critically examine a diversity of source material.
2. **Communication:** In written, oral, and/or visual communication, students will communicate in a manner appropriate to audience and occasion, with an evident message and organizational structure.
3. **Teamwork:** Students will be able to work together toward a shared purpose relevant to the course or discipline with a sense of shared responsibility for meeting that purpose. Students must do their group study to develop a report for their preselected disaster. Students will learn how to work in a group, how to distribute workload among group members, and finally how to solve problems in a group. There will be equal group members for each group. In class, groups will work for 10 to 15 minutes to answer 1 or 2 questions. This way instructor will also be able to evaluate the teamwork performance for each group other than the quality of report and class presentations.
4. **Empirical and Quantitative Skills:** Students will be able understand and utilize mathematical functions and empirical principles and processes.

COURSE REQUIREMENTS

Minimal Technical Skills Needed

Algebra, engineering math, basic chemistry.

In addition, using the learning management system, using Microsoft Word and PowerPoint, using presentation and graphics programs, etc.

Instructional Methods

Conducting lectures, resorting to videos and visual-aid presentations, e.g., "PowerPoint" and "You tube", solving math problems together with the students in the classroom, expecting student participation in the classroom discussions, assigning Exams and homework assignments, etc.

Student Responsibilities or Tips for Success in the Course

Turn-in all the assigned academic work; actively participate in verbal discussions; take notes and copy written explanations during class periods; take assigned written Exams; log into the course website, regularly; complete the assigned weekly study.

Learning strategies

Lectures

Reading assignments to be discussed in class

Analysis of Case Study Samples

Individual work, analysis of free reading Homework

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Assumptions, Expectations, Philosophy

University students are a select group of students soon to be professionals.

Instructors can have high expectations of student performance.

Demanding courses benefit students more than easy courses.

Assignments are due on time unless you have made a prior arrangement with me (only granted for unusual or extenuating circumstances and in case of health issues proper medical excuse is required).

Come to class prepared, having read and thought about the assigned readings; course materials are meant to be studied, not merely read. Actively participate in class discussions; ask questions.

In university, a lot of your learning will occur outside of the classroom, during your own research, and in formal and informal interactions with your peers– both here and at meetings, correspondence, etc.

Therefore, I expect you to take full advantage of ALL learning opportunities, including seminars and invited speakers.

Reading and assimilating information is a critical part of your current and continuing education. This will help you become a better writer, a more rounded individual, and expose you to subjects outside of your immediate knowledge.

GRADING

Final grades in this course will be based on the following scale:

A= 90%-100%; B = 80%-89%; C = 70%-79%; D = 60%-69%; F = 59% or Below

Tentative course outline (Timeline may change)

Date	Topics (Book Chapters)	Subtopics
01/16 - 01/30	Introduction/Welcome	Student and Faculty introduction Overview of Environmental Technology Public Health, Ecology, Environmental Pollutions Geology and Soils Historical Perspective
02/01 – 02/ 17	Chapter 2,7, 8 Hydraulics, Water Distribution Systems, Sanitary and Sewer System	
02/27	Quiz Assignments Discussion	Quiz will from any chapters of 2, 7, 8 Assignment will be posted in D2L
02/19 – 03/29	Chapter 5, 13, and 14 Water Pollution Air Pollution and Control Noise Pollution and Control	Quiz will from any chapters of 13 and 14 Note: Beginning of the week Instructor will announce the date for quiz (if any for that week)
03/31	Exam #1 Chapters: Chapter 2 Chapter 7 Chapter 8 Chapter 13	Sample questions for exam will post in D2L

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04/03 – 04/21	Chapter 6, 9, 10 Drinking Water Purification Stormwater Management Wastewater Treatment and Disposal	
04/28	Exam #2 Chapters: Chapter 6, 9, 10, 14	
05/01 – 05/12	Chapter 11, 12 Municipal Solid Waste Hazardous Waste Management	
05/15	Review of all chapters If anything changed or we are late in class	
05/17	Final Exam All chapters	

Exam:

There will be a total of 3 **exams** for the course. Exams will be designed to evaluate the student's understanding of the subjects covered in class and empirical and quantitative skills. Study guide will be given to help you prepare for exams.

Grades:

Quiz (10*3=30%)

3 Exams (20 % each x 3 = 60 %)

Class Attendance and Participation (10%)

Course Requirements and Evaluation Methods:

Attendance and punctuality are required and non-negotiable.

Homework, quizzes, exams, and term paper are required.

Activities that distract surrounding people are inconsiderate and disrespectful. Activities such as texting, emailing, browsing or using cellular phones are prohibited during Lecture.

We encourage student contribution to the overall progress of the group. We encourage interactive participation. It is necessary that students have a professional and ethical behavior through the entire course. Lectures are a group activity, and so it requires social consideration and respect amongst members of the group, teachers and professors.

Penalty enforcement (I reserve the right to adjust your grade for violation of the minimum expectations).

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Make-up exams will only be given if arrangements are made with the instructor before missing the scheduled exam. A documented excuse will be required.

Otherwise, **missing academic work** will be counted as zeroes in the overall grade computation

COURSE AND UNIVERSITY PROCEDURES/POLICIES

NOTE #1: Late assignments are not accepted. Very, very extreme circumstances may or may not provide a warranted exception. This course moves very fast and there is not enough time to catch up. In case of extreme circumstances, I may accept late work. However, 10 points will be deducted from late assignments. Research Written Report and Oral Presentation: Each student will choose 1 type of treatment technology. The guidelines for the Written Report and Oral Presentation are in “D2L”.

NOTE #2: Please email your presentation to the Professor, before your Presentation day.

NOTE #3: Missed Homework and Exams are not acceptable. Very, very extreme circumstances may or may not provide a warranted exception. This course moves very fast and there is not enough time to catch up. In case of extreme circumstances, I may accept let you take a missed Exam or submit a missed Homework. However, 20 points may be deducted from the missed Exam or from the missed Homework.

Overall Weighted Average Grade will be computed by adding the percentage of each grade earned from each assignment, as stated on the Course Grading table, shown above. **ONLY** unofficial grades will be posted on D2L. Official grades are in my grade book. It is most strongly recommended that each student retain their grades until the final grade has been entered into the university system to ensure all was recorded correctly.

TECHNOLOGY REQUIREMENTS

All course sections offered by Texas A&M University-Commerce have a corresponding course shell in the myLeo. Below are technical requirements

LMS Requirements:

<https://community.brightspace.com/s/article/Brightspace-Platform-Requirements>

LMS Browser Support:

https://documentation.brightspace.com/EN/brightspace/requirements/all/browser_supp ort.htm

YouSeeU Virtual Classroom Requirements: <https://support.youseeu.com/hc/en-us/articles/115007031107-Basic-SystemRequirements>

ACCESS AND NAVIGATION

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.

Note: Personal computer and internet connection problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or

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work, the temporary use of a computer at a friend's home, the local library, office service companies, Starbucks, a TAMUC campus open computer lab, etc.

COMMUNICATION AND SUPPORT

If you have any questions or are having difficulties with the course material, please contact your Instructor.

Technical Support

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778. Other support options can be found here:

<https://community.brightspace.com/support/s/contactsupport>

Interaction with Instructor Statement

Weekdays: 1-24 hours; Evenings, Weekends: 5~48 hours

Syllabus Change Policy

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

University Specific Procedures

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/oneStopShop/undergraduateAdmissions/studentGuidebook.aspx>

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum:

<https://www.britannica.com/topic/netiquette>

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](#)

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<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>

Students with Disabilities-- ADA Statement

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. 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: studentdisabilityservices@tamuc.edu

Website: [Office of Student Disability Resources and Services](#)

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

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.

Campus Concealed Carry Statement

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 the [Carrying Concealed Handguns On Campus](#) document and/or consult your event organizer.

Web url: <http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf>

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Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&MCommerce campuses.
Report violations to the University Police Department at 903886-5868 or 9-1-1

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