ENVS 410 — Environmental Monitoring and Waste Management

COURSE SYLLABUS: Spring 2013

Instructor: W. Ray Arnold, Ph.D. – Assistant Professor
Office Location: SCT 215
Office Hours: M: 2:00-4:00, W: 2:00-4:00 Th: 2:00-3:00
Office Phone: (903) 468-3271
Office Fax: (903) 886-5997
University Email Address: Ray.Arnold@tamuc.edu

COURSE INFORMATION

Materials – Readings, Supplementary Readings:

*Textbook Required: None required*

*Readings: Supplemental reading materials or references will be provided*

*Course Description: This course is designed to provide an overview of the various sample collection, analytical, and data analysis techniques as they related to detection and control of pollution. We will cover the technical and regulatory aspects of the handling, control, and management of hazardous and nonhazardous wastes.*

*Student Learning Outcomes: Completion of these outcomes does not guarantee that you will pass this course.*

1. Students will be able to define “listed waste”.
2. Students will be able to define “characteristic waste”.
3. Students will be able to define “vitrification”.

COURSE REQUIREMENTS

*Instructional Methods:*

Lecture, discussion, and videos

*Activities:*

*Presentations:*

1. Present and submit (electronic copies) two well organized 25 minute PowerPoint presentations on a topic assigned to the student. Copies of the presentation materials will be provided by the student to all other students in the class. All students must be prepared to give their presentation by Tuesday February 19, 2013.

2. I reserve the right to modify the assignments and schedule.
Assessment:

Minimum expectations:
1. Attend lectures and be punctual
2. Be attentive
3. Participate in class discussions
4. Be respectful to me and your classmates
5. Complete class assignments on time and on target
6. Be punctual on exam day; complete the three exams (including a comprehensive final exam)
7. Achieve an average grade of ≥60% according to the grading basis (below)

Grade basis:

<table>
<thead>
<tr>
<th>Category</th>
<th>Points</th>
</tr>
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<tbody>
<tr>
<td>Tests (3), including final</td>
<td>300</td>
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<tr>
<td>Lab Grade</td>
<td>135</td>
</tr>
<tr>
<td>Presentations (2, 50 pts each)</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>535</td>
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</tbody>
</table>

1. Penalty enforcement (I reserve the right to adjust your grade for violation of the minimum expectations)
2. 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 exams will be counted as zeroes in the overall grade computation.

Grading Scale: The following scale is adhered to strictly.

- 90.0 – 100% = A
- 80.0 - 89.9% = B
- 70.0 - 79.9% = C
- 60.0 – 69.9% = D
- <60.0% = F

TECHNOLOGY REQUIREMENTS

A handheld scientific calculator (e.g., TI 30 ≈$9 at Walmart), a jump drive, and a computer with Word and Excel software.

ACCESS AND NAVIGATION

Access to a computer with Word, Excel, PowerPoint, and an internet connection

COMMUNICATION AND SUPPORT

Interaction with Instructor Statement:
Contacting Your Instructor: If you have questions pertaining to the content of this course (e.g., questions about an exam, course due dates, grades, etc.), please contact your me via email, phone, or come by my office. Though I am happy to see you anytime (time permitting), it may be easiest to find me during my office hours.
Course Specific Procedures:

**Responsible Use of Technology** — It is expected that all students will only use cell phones, PDAs, laptop computers, MP3 players and other technology outside of class time or when appropriate in class. Answering a cell phone, texting, listening to music or using a laptop computer for matters unrelated to the course may be grounds for dismissal from class and/or other penalties. Students are not allowed to use image, video, nor audio recording devices of any kind during class time without prior consent of the instructor.

University Specific Procedures:

**ADA Statement**

**Students with Disabilities:**
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
StudentDisabilityServices@tamuc.edu

**Student Conduct**

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. (See Code of Student Conduct from Student Guide Handbook).

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**COURSE OUTLINE / CALENDAR**

Schedule is approximate and subject to change

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
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<tbody>
<tr>
<td>Jan 14</td>
<td>Class Introduction &amp; Introduction to Waste and Waste Management</td>
</tr>
<tr>
<td>Jan 28</td>
<td>Waste Laws and Regulations</td>
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<tr>
<td>Feb 04</td>
<td>Waste Classification</td>
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<tr>
<td>Feb 11</td>
<td>Exam 1</td>
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<tr>
<td>Feb 25</td>
<td>Fate of Wastes and Landfill Types</td>
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<tr>
<td>Mar 04</td>
<td>Hazardous and Non-hazardous Landfills</td>
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<tr>
<td>Mar 11</td>
<td>Spring Break</td>
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</tbody>
</table>
Mar 18 — Hazardous Waste Generation, Transport, Treatment, Storage, and Disposal
Mar 25 — Exam 2
Apr 01 — Hazardous Waste Generation, Transport, Treatment, Storage, and Disposal
Apr 15 — Universal Waste and Waste Minimization
Apr 22 — Other types of waste treatment
Apr 29 — Other types of waste treatment
May 06 — Final Exam