



UNIVERSITY OF TEXAS AT ARLINGTON

GEOL 4305-045, 4305-046

Introduction to Environmental Studies

A Special Topics Course

Summer 2015

INSTRUCTOR(S): Dr. Ashanti Johnson

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SECTION INFORMATION: GEOL 4305-045 and GEOL 4305-046

COURSE DATES: Jun 8, 2015-Aug 13, 2015

TIME AND PLACE OF CLASS MEETINGS: online, asynchronous

OFFICE HOURS: Available by email. Questions and concerns will be answered on Wednesdays 9:00am-11:00am (CST). Appointments may be scheduled at least two days ahead.

DESCRIPTION OF COURSE CONTENT

This course serves as an introduction to and covers broad aspects of environmental studies. It is designed to foster an increased understanding of physical, chemical and biological systems of the terrestrial and aquatic environments, their complex connections and patterns, and human interactions. In this course emphasis is placed on a holistic approach to environmental studies using case studies, learning activities, and discussions to reinforce scientific principles. Students will examine the relationship between humankind and nature in order to gain a broad understanding of issues, causes, and possible solutions to the array of environmental challenges faced in today's world.

STUDENT LEARNING OUTCOMES

After completing this course students will be able to:

- critically evaluate information related to environmental issues/concerns;
- develop a concrete framework for understanding and applying the scientific process to environmental concerns; and
- demonstrate an understanding of physical, chemical and biological systems of terrestrial and aquatic environments, their complex connections and patterns, and human interactions.

Students who successfully complete the course will also be familiar with key terminology pertaining to environmental studies and possess knowledge related to issues, causes, and

possible solutions to local, regional and global environmental challenges faced in today's world.

REQUIRED TEXTBOOKS AND OTHER COURSE MATERIALS

Environment: The Science behind the Stories, 5th Edition, Pearson, Jay Withgott and Matthew Laposata. Reading assignments in the text are designated by chapter in the Course Schedule Outline and Reading Assignments section below. Some additional reading may be suggested.

OTHER REQUIREMENTS

Course Prerequisites: This course is reserved for students enrolled in the Finish@UT program. Students must have obtained Junior standing. Students must have completed 60 credits and the General Education Core requirements.

GRADING:

- Homework Assignments: (6) 15% of course (2.5% each)
- Quizzes: (2) 10% of course (5% each)
- Exams: (2) 30% of course (15% each)
- Final Exam: 30% of course (*This will be a cumulative exam*)
- Introductory Assignment: 3% of course
- Signature Assignment: 12% of course

Students are expected to keep track of their performance throughout the semester and seek guidance from available sources (including the instructor) if their performance drops below satisfactory levels. ***All homework assignments, quizzes and exams are due by 11:59pm (CST) on the dates specified. Late submission is penalized at a rate of 10% credit per day. This will be enforced.***

GRADE GRIEVANCES

Any appeal of a grade in this course must follow the procedures and deadlines for grade-related grievances as published in the current undergraduate catalog.

DESCRIPTIONS OF MAJOR ASSIGNMENTS AND EXAMINATIONS

- Homework problem sets assignments, quizzes and exams offer great ways to digest the knowledge learned in class.
- **ALL assignments, quizzes and exams are due by 11:59pm (CST) on the specified date.** Any assignment, quiz or exam submitted after then will be considered late, unless prior arrangements have been made with the instructor.
- Late submission is penalized at a rate of 10% credit per day. **This will be enforced.**

COURSE SCHEDULE OUTLINE AND READING ASSIGNMENTS

Assignments, quizzes and exams for this course are posted on the Mastering Environmental Science website. In addition a series of suggested review exercises from the assigned textbook are listed below. These exercises were selected from the Testing Your Comprehension (TYC), Seeking Solutions (SS), and Calculating Ecological Footprints (CEF) sections located at the end of each book chapter.

	READING ASSIGNMENT	ASSIGNMENTS/QUIZZES/EXAMINATIONS
Week of June 7th – June 13th	Chapter 1- <i>Science and Sustainability: An Introduction to Environmental Science</i> Chapter 2- <i>Earth's Physical Systems: Matter, Energy, and Geology</i> Chapter 6- <i>Ethics, Economics, and Sustainable Development</i>	Practice Mastering Environmental Science, Math Review and Introductory Environmental Studies Assignments (<i>See details provided below</i>) (Due 6/10/2015) Homework Assignment # 1 for Chapters 1, 2, and 6 (Due 6/13/2015) Suggested Review Problems: <i>Chapter 1 TYC</i> questions: 1, 3, 4, 6, 7; <i>Chapter 2 TYC</i> questions: 1, 2, 4, 5, 8, 10; <i>Chapter 2 SS</i> questions: <i>Chapter 6 TYC</i> questions: 1, 3, 5, 6, 10 and <i>Chapter 6 CEF</i> questions: 1, 2, 4)
Week of June 14th - 20th		Quiz 1 (Due 6/15/2015)
Week of June 14th - 20th	Chapter 7- <i>Environmental Policy: Making Decisions and Solving Problems</i> Chapter 9- <i>Soil and Agriculture</i> Chapter 12- <i>Forests, Forest Management, and Protected Areas</i>	Homework Assignment #2 for Chapters 7, 9 and 12 (Due 6/18/2015) Suggested Review Problems: <i>Chapter 7 TYC</i> questions: 1, 3, 4, 5, 6, 7, 9, 10; <i>Chapter 9 SS</i> questions: 3, 4, 5; and <i>Chapter 12 TYC</i> questions: 1, 2, 3, 4, 5, 10) Exam 1 (Due 6/20/2015)
Week of June 21st - 27th	Chapter 13- <i>The Urban Environment: Creating Sustainable Cities</i> Chapter 15- <i>Freshwater Systems and Resources</i>	Homework Assignment #3 for Chapters 13 and 15 (Due 6/25/2015) Suggested Review Problems: <i>Chapter 13 TYC</i> questions: 1, 4, 5, 9; <i>Chapter 13 SS</i> question: 1; <i>Chapter 15 TYC</i> questions: 1, 4, 5, 7, 9, 10
Week of June 28th – Jul 4th	Chapter 16- <i>Marine and Coastal Systems and Resources</i> Chapter 17- <i>Atmospheric Science, Air Quality, and Pollution Control</i>	Homework Assignment #4 for Chapters 16, and 17 (Due 7/2/2015) Suggested Review Problems: <i>Chapter 16 SS</i> questions: 1, 3, 5, 10); <i>Chapter SS</i> questions: 3, 5
Week of Jul 5th -11th		Quiz 2 (Due 7/8/2015)
Week of Jul 12th – July 18th	Chapter 18- <i>Global Climate Change</i> Chapter 19- <i>Fossil Fuels, Their Impacts, and Energy Conservation</i> Chapter 20- <i>Conventional Energy Alternatives</i>	Homework Assignment #5 for Chapters 18, 19, and 20 (Due 7/16/2015) Suggested Review Problems: <i>Chapter 18 TYC</i> questions: 1, 2, 5, 6; <i>Chapter 18 CEF</i> questions: 1, 2, 3, 4; <i>Chapter 19 TYC</i> questions: 1, 2, 4, 5, 7, 9; <i>Chapter 20 TYC</i> questions: 1, 2, 3, 4, 5, 7, 9)

		Exam 2 (Due 7/18/2015)
Week of Jul 19th -25th	Chapter 21- <i>New Renewable Energy Alternatives</i> Chapter 23- <i>Minerals and Mining</i> Chapter 24- <i>Sustainable Solutions</i>	Homework Assignment #6 for Chapters 21, 23, and 24 (Due 7/23/2015): Suggested Review Problems: <i>Chapter 21</i> TYC questions: 1, 3, 6, 8; <i>Chapter 23</i> TYC questions: 1, 3, 7; <i>Chapter 24</i> TYC questions: 5, 6, 10))
Week of July 26th – Aug 1st		Course Review (Review <u>ALL</u> Chapter Review Slides)
Week of Aug 2nd – Aug 8th		Final Exam (Due 8/7/2015)
Week of Aug 9th – July 15th		Signature Assignment (See details provided below) (Due 8/10/2015)

As the instructor for this course, I reserve the right to adjust this schedule in any way that serves the educational needs of the students enrolled in this course. –Dr. Ashanti Johnson

Introductory Environmental Studies Assignment (*Due on 6/10/2015*)

- A. Complete the Mastering Environmental Science Homework via the Mastering Environmental Science web portal.
- B. Complete the Math Review Homework via the Mastering Environmental Science web portal.
- C. Utilize www.onlinenewspapers.com to identify three (3) articles that relate to our local, regional, and/or global environment.
 - a. Provide a link and a full citation to each of the articles.
 - i. The first citation should be provided utilizing MLA Newspaper Online format (Last, First M. "Article Title." *Newspaper Title* Date Month Year Published: Page(s). *Website Title*. Web. Date Month Year Accessed.)
 - ii. The second citation should be provided utilizing APA Newspaper Online format (Last, F. M. (Year, Month Date Published). Article title. *Newspaper Title*, pp. Page(s). Retrieved from URL address.).
 - iii. The third citation should be provided utilizing Turabian Newspaper Online format (Last Name, First Name. "Article Title." Newspaper Name, Publication Date. URL address (accessed Month Day, Year).
 - b. For each article provide:
 - i. the link to the article
 - ii. a 350 word essay summarizing the article and describing how relates to the environment.

Signature Assignment (*Due on 8/10/2015*)

- A. Complete three (3) out of the seven (7) “Seeking Solutions” (SS) exercises provided below:
 - Chapter 6- *Ethics, Economics, and Sustainable Development* SS #2 on page 158

- Chapter 7- *Environmental Policy: Making Decisions and Solving Problems* SS #4 on page 185
- Chapter 13- *The Urban Environment: Creating Sustainable Cities* SS #5 on page 356
- Chapter 16- *Marine and Coastal Systems and Resources* SS#2 on page 446
- Chapter 23- *Minerals and Mining* SS #3 on page 651
- Chapter 24- *Sustainable Solutions* SS #1 on page 672
- Chapter 24- *Sustainable Solutions* SS #6 on page 673

B. Complete all exercises outlined in two (2) out of the four (4) “Calculating Ecological Footprints” (CEF) listed below:

- Chapter 2- *Earth’s Physical Systems: Matter, Energy, and Geology* CEF on page 418
- Chapter 15- *Freshwater Systems and Resources* CEF on page 418
- Chapter 17- *Atmospheric Science, Air Quality, and Pollution Control* CEF on page 480
- Chapter 20- *Conventional Energy Alternatives* CEF on page 579

EXPECTATIONS FOR OUT-OF-CLASS STUDY

Beyond the time required to attend each class meeting, students enrolled in this course should expect to spend at least an additional 9 hours per week of their own time in course-related activities, including reading required materials, completing assignments, preparing for exams, etc.

ATTENDANCE: University policy will apply.

DROP POLICY

Students may drop or swap (adding and dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising Center. Drops can continue through a point two-thirds of the way through the term or session. It is the student's responsibility to officially withdraw if they do not plan to attend after registering. **Students will not be automatically dropped for non-attendance.** Repayment of certain types of financial aid administered through the University may be required as the result of dropping classes or withdrawing. For more information, contact the Office of Financial Aid and Scholarships (<http://wweb.uta.edu/aao/fao/>).

AMERICANS WITH DISABILITIES ACT

The University of Texas at Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including the *Americans with Disabilities Act (ADA)*. All instructors at UT Arlington are required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of that disability. Any student requiring an accommodation for this course must provide the instructor with official documentation in the form of a letter certified by the staff in the Office for Students with Disabilities, University Hall 102. Only those students who have officially documented a need for an accommodation will have their request honored. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at www.uta.edu/disability or by calling the Office for Students with Disabilities at (817) 272-3364.

ACADEMIC INTEGRITY

Students enrolled in this course are expected to adhere to the UT Arlington Honor Code:

I pledge, on my honor, to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence.

I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.

UT Arlington faculty members may employ the Honor Code as they see fit in their courses, including (but not limited to) having students acknowledge the honor code as part of an examination or requiring students to incorporate the honor code into any work submitted. Per UT System *Regents' Rule* 50101, §2.2, suspected violations of university's standards for academic integrity (including the Honor Code) will be referred to the Office of Student Conduct. Violators will be disciplined in accordance with University policy, which may result in the student's suspension or expulsion from the University.

STUDENT SUPPORT SERVICES

UT Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. Resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals, students may visit the reception desk at University College (Ransom Hall), call the Maverick Resource Hotline at 817-272-6107, send a message to resources@uta.edu, or view the information at www.uta.edu/resources.

ELECTRONIC COMMUNICATION

UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact university-related business regarding financial aid, tuition, grades, graduation, etc. All students are assigned a MavMail account and are responsible for checking the inbox regularly. There is no additional charge to students for using this account, which remains active even after graduation. Information about activating and using MavMail is available at <http://www.uta.edu/oit/cs/email/mavmail.php>.

STUDENT FEEDBACK SURVEY

At the end of each term, students enrolled in classes categorized as “lecture,” “seminar,” or “laboratory” shall be directed to complete an online Student Feedback Survey (SFS). Instructions on how to access the SFS for this course will be sent directly to each student through MavMail before the end of the term. Each student’s feedback enters the SFS database anonymously and is aggregated with that of other students enrolled in the course. UT Arlington’s effort to solicit, gather, tabulate, and publish student feedback is required by state law; students are strongly urged to participate. For more information, visit <http://www.uta.edu/sfs>.

FINAL REVIEW PERIOD

One class day prior to the final examination during this summer course shall be designated as a Final Review Period. The purpose of this period of time is to allow students sufficient time to prepare for final examinations. During this period, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week *unless specified in the class syllabus*. During the Final Review Period, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during the Final Review Period. During this period of time, classes are held as scheduled. In addition, instructors are not required to limit content to topics that have been previously covered; they may introduce new concepts as appropriate.

EMERGENCY EXIT PROCEDURES

Should we experience an emergency event that requires us to vacate the building, students should exit the room and move toward the nearest exit. When exiting the building during an emergency, one should never take an elevator but should use the stairwells. Faculty members and instructional staff will assist students in selecting the safest route for evacuation and will make arrangements to assist handicapped individuals.