

ENVIRONMENTAL SCIENCE (BIOL 1401)

Lectures: TR 12:30 – 1:50am in LDB 215

Laboratory: M 12:00-1:50; M 2:00-3:50; T 10:00-11:50, T 2:00-3:50

INSTRUCTOR: Dr. Jeffrey R. Wozniak

- Email: wozniak@shsu.edu; phone: 936-294-3759 (office)
- Office Hours (LDB 105b): TR 11:00 – 12:30am and by appointment

RECOMMENDED TEXT

- Environmental Science 9th edition (or 10th edition), Daniel D. Chiras. Jones and Bartlett Publishers.
- <http://www.jblearning.com/catalog/9781449645311/>

COURSE OVERVIEW:

This class will go beyond simply qualifying the interrelationships between human activities and the environment, a traditional objective of many environmental science courses, and will provide students with a true interdisciplinary approach to assess, understand, and take action on current and future environmental issues.

Issues in the field of environmental science are constantly changing and the forward thinkers in the field must have the ability to critically assess new issues/problems from multiple perspectives (*including*: chemistry, biology, ecology, earth sciences, physics, economics, social science, sustainability science and political science).

Successful students in this class will be able to understand the theoretical science behind real world environmental science examples, but also consider the economic, political, civic and or social factors that influence environmental change and shape our response to it.

Students will be required to apply their knowledge to examine real world issues/case studies which will span multiple spatial scales (endangered species to global warming) and will consider both short (current) and long-term (multi-generational) temporal trends.

A major portion of environmental science is communication your findings, concepts and principles to others. This course will include a community outreach/group project where groups will be paired with local community partners to conduct a sustainability/environmental assessment of a local organization, business or facility. These projects will work to synthesize the environmental science concepts presented in class, with groups presenting a final report to their community partners highlighting how the community partner can modify their business plan/operations to function in a more environmentally friendly manner. In this course, you will not only learn knowledge and skills, but also actively use them to make a difference in our community to improve the quality of life. This experience, it is hoped, will help you see yourself as a positive force in this world and deepen your understanding of your role as a citizen in our community and a steward of our environment.

Students will analyze environmental science issues with the following method:

1. **Assess** environmental issue
2. **Understand** how and why issue is occurring from a scientific point of view
3. **Consider** broader impacts (socio-economics, politics, sustainability, etc.)
4. **Formulate** multi-disciplinary opinion on topic (considering all points of view)
5. **Communicate** well thought out comments on the issue in hopes of driving future positive changes

The overarching goal of this course is that at the end of the semester, students will be empowered to look beyond the politics and media-driven mindsets surrounding environmental issues and will be able to successfully communicate the current key scientific and social themes in the field environmental science.

Important: credit in BIO 1401 as a laboratory science is contingent upon completion of the associated Environmental Science Laboratory. Here, 75% of your grade will from points earned in the lecture and 25% of your final grade will be from the laboratory section.

COURSE POLICY & EXPECTATIONS:

Attendance to class is required due to the volume of material covered each class and the importance of your feedback and discussion in the classroom. I expect each of you to be *present* and *prepared* for each and every class. This will involve having critically read the assigned text and completing the written assignments **BEFORE EACH CLASS!** The success of this class hinges on each of you being prepared and ready to engage in a discussion in each class session. All written assignments will be due via upload to Blackboard **NO HARD COPIES OR EMAILED ASSIGNMENTS WILL BE ACCEPTED – NO LATE ASSIGNMENTS/QUIZZES/EXAMS WILL BE ACCEPTED!** There will be no extra credit offered in the course beyond the below definition of the available points in this course.

GRADING:

| | |
|---|--------------------------|
| 1. Quizzes: 10 @ 10pts each | 100 points |
| 2. Assignments: ~10 @ varied point values | ~160 points |
| 3. Lecture Exams: 3 exams @ 100pts each | 300 points |
| 4. Community Outreach Group Project | 150 points |
| 5. Final Cumulative Exam | 100 points |
| 6. Laboratory | ¼ of total course points |

•Grading scale: A ≥ 90%; B ≥ 80%; C ≥ 70%; D ≥ 60%; F < 60%

CLASS ASSIGNMENTS SPECIFICS:

Please see the “Course Expectations and Frequently Asked Questions” document for additional information.

•**Assignments, Letters to the Editor and Worksheets** will be due at the start of the class session. Please see course calendar for assignment due dates and the point break-down for each assignment. These assignments will be uploaded to the course page via Blackboard (Bb) – please be sure you know how to upload documents successfully, as **hard copy and emailed assignments will not be accepted. Late submission will not be accepted.**

•Several **quizzes** (between 5-10 depending on how the class progresses) will be given throughout the semester. These quizzes will occur during prescribed time windows and will be administered on Bb. You will be required to download and install the “lock-down browser” on your computer to take these quizzes. There will be no make-ups for these quizzes – if you do not take it during the time window defined in the instructions the quiz will not be re-administered. ***Please contact the SHSU Blackboard Helpdesk with specific questions regarding installing the Lock-down browser.***

•There will be 3 **lecture exams** and 1 final exam that will be cumulative. Make-up exams will not be given. Please have a 100 question scantron sheet for each exam. If you are going to miss an exam, you must let me know at least 2 weeks prior to the exam date to discuss possible re-test scenarios.

▪This course will include a **community outreach project** where student groups will be teamed with local community partners (businesses, facilities, etc.). Students will complete an environmental assessment of the community partner that will include the determination of current environmental practices. The project will culminate in an in-class presentation at the end of the semester, a written reflection of your experience and a formal report back to the community partner outlining potential steps the partner could make in the future to improve their level of environmental awareness, increase profits and or operate in a more sustainable manner. All students in a group will not be guaranteed the same grade on the project – so each student must be an active participant in the project. Please be advised that these group projects will include group work that will occur outside of normal classroom meeting times. Students will need to both be on campus outside of the class room meeting time to meet with their groups as well as to go out into the community to conduct their project’s research. This course and this project will fall under the Academic Community Engagement (ACE) program here at SHSU (<http://www.shsu.edu/~ace/>).

▪If you have questions or concerns during the semester, I urge you to contact me immediately so that we can set up a time to meet. A large portion of this class will be discussion based and your participation is critical. If you do not understand a concept or have questions that will preclude you from participating in discussions, it is your responsibility to seek the answers to those questions. Please know that I will be more than happy to meet with you and will do my best to make sure each student understands all the material presented – please know I do need you to tell me if and when you have questions to assure this occurs!

▪During the course of the semester some classes will move more quickly and others more slowly, for this reason I reserve the right to amend any and all sections, assignment and material of the course.

Classroom Rules of Conduct: Students are expected to assist in maintaining a classroom environment that is conducive to learning. Students are to treat faculty and students with respect. Students are to turn off all cell phones while in the classroom. Under no circumstances are cell phones or any electronic devices to be used or seen during times of examination. Students may tape record lectures provided they do not disturb other students in the process.

Student Absences on Religious Holy Days: Students are allowed to miss class and other required activities, including examinations, for the observance of a religious holy day, including travel for that purpose. Students remain responsible for all work. *See Student Syllabus Guidelines.*

STUDENTS WITH DISABILITIES POLICY:

It is the policy of Sam Houston State University that individuals otherwise qualified shall not be excluded, solely by reason of their disability, from participation in any academic program of the university. Further, they shall not be denied the benefits of these programs nor shall they be subjected to discrimination. Students with disabilities that might affect their academic performance should register with the Office of Services for Students with Disabilities located in the Lee Drain Annex (telephone 936-294-3512, TDD 936-294-3786, and e-mail disability@shsu.edu). They should then make arrangements with their individual instructors so that appropriate strategies can be considered and helpful procedures can be developed to ensure that participation and achievement opportunities are not impaired.

SHSU adheres to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations for students with disabilities. If you have a disability that may affect adversely your work in this class, then I encourage you to register with the SHSU Services for Students with Disabilities and to talk with me about how I can best help you. All disclosures of

disabilities will be kept strictly confidential. NOTE: No accommodation can be made until you register with the Services for Students with Disabilities. For a complete listing of the university policy, see:

<http://www.shsu.edu/dept/academic-affairs/documents/aps/students/811006.pdf>

Visitors in the Classroom: Only registered students may attend class. Exceptions can be made on a case-by-case basis by the professor. In all cases, visitors must not present a disruption to the class by their attendance. Students wishing to audit a class must apply to do so through the Registrar's Office.

ACADEMIC DISHONESTY:

Students are expected to maintain honesty & integrity in all academic experiences both in & out of the classroom. *Issues will be pursued with the Dean of Students office.* All students are expected to engage in all academic pursuits in a manner that is above reproach. Students are expected to maintain honesty and integrity in the academic experiences both in and out of the classroom. Any student found guilty of dishonesty in any phase of academic work will be subject to disciplinary action. The University and its official representatives may initiate disciplinary proceedings against a student accused of any form of academic dishonesty including, but not limited to, cheating on an examination or other academic work which is to be submitted, plagiarism, collusion and the abuse of resource materials. For a complete listing of the university policy, see: <http://www.shsu.edu/administrative/faculty/sectionb.html#dishonesty>

STUDENT ABSENCES ON RELIGIOUS HOLY DAYS POLICY:

Section 51.911(b) of the Texas Education Code requires that an institution of higher education excuse a student from attending classes or other required activities, including examinations, for the observance of a religious holy day, including travel for that purpose. Section 51.911 (a) (2) defines a religious holy day as: "a holy day observed by a religion whose places of worship are exempt from property taxation under Section 11.20..." A student whose absence is excused under this subsection may not be penalized for that absence and shall be allowed to take an examination or complete an assignment from which the student is excused within a reasonable time after the absence. University policy 861001 provides the procedures to be followed by the student and instructor. A student desiring to absent himself/herself from a scheduled class in order to observe (a) religious holy day(s) shall present to each instructor involved a written statement concerning the religious holy day(s). The instructor will complete a form notifying the student of a reasonable timeframe in which the missed assignments and/or examinations are to be completed. For a complete listing of the university policy, see:

http://www.shsu.edu/~vaf_www/aps/documents/861001.pdf

STUDENTS WITH DISABILITIES POLICY:

It is the policy of Sam Houston State University that individuals otherwise qualified shall not be excluded, solely by reason of their disability, from participation in any academic program of the University. Further, they shall not be denied the benefits of these programs nor shall they be subjected to discrimination. Students with disabilities that might affect their academic performance are expected to visit with the Office of Services for Students with Disabilities located in the Counseling Center. They should then make arrangements with their individual instructors so that appropriate strategies can be considered and helpful procedures can be developed to ensure that participation and achievement opportunities are not impaired. SHSU adheres to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations for students with disabilities. If you have a disability that may affect adversely your work in this class, then I encourage you to register with the SHSU Counseling Center and to talk with me about how I can best help you. All disclosures of disabilities will be kept strictly confidential. NOTE: No accommodation can be made until you register with the Counseling Center. For a complete listing of the University policy, see:

http://www.shsu.edu/~vaf_www/aps/811006.html

Any student with a disability that affects his/her academic performance should contact the Office of Services for Students with Disabilities in the SHSU Lee Drain Annex (telephone [936-294-3512](tel:936-294-3512), TDD [936-294-3786](tel:936-294-3786)) to request accommodations.

VISITORS IN THE CLASSROOM:

Only registered students may attend class. Exceptions can be made on a case-by-case basis by the professor. In all cases, visitors must not present a disruption to the class by their attendance. Students wishing to audit a class must apply to do so through the Registrar's Office.