Course Number: ENVR 1401
Course Title: Environmental Science Lab

Instructor’s Information:
Instructor’s Name: Shannon Burkett
Office Number: LA-234
Office Hours: Monday 9am to noon; or by appointment
Phone number: Seeing as I do not have an office of my own, you can leave phone messages for me at the following number: 972-548-6830
   - In case of an emergency, contact the Office of Academic Affairs in B-122, 214-491-6270
Email: sburkett@collin.edu

Class Information:
Section Number: C9L
Meeting Times: Wednesday Evening, 5pm-7:50pm
Meeting Location: Central Park Campus, A-326

Course Description:
ENVR 1401 is an interdisciplinary study of both natural (biology, chemistry, geology) and social (economics, politics, ethics) sciences as they apply to the environment. It focuses on current global concerns, including: global warming, overpopulation, deforestation, pollution, biodiversity and resource use. It also includes practical laboratory experience with emphasis on the application of fundamental principles of biology and chemistry as well as critical thinking and analysis.

Course Credit Hours: 4
Lecture Hours: 3
Lab Hours: 3
Clinical/Recitation Hours: N/A

Placement Assessment(s):
Students must at least assess into Math 0310, English 1301, and be at a college reading level.

Concurrent Enrollment: MATH 0310, ENGL 1301.
Corequisite: ENVR 1401 Lecture

Course Resources:
- Lab Manual: Available only on-line through Blackboard—must be able to access Blackboard 9 (elearning.collin.edu)
- Student must be familiar with EXCEL or similar database/graphing software.
**Supplies:**
- Metric/English ruler
- Basic (non-graphing, four-function) calculator. If you already own a graphing calculator, this is acceptable.
- Writing implement (i.e. pencil, pen, etc...) and a binder/notebook for note-taking.

**Student Learning Outcomes:**
On successfully completing this course students will be able to:

- Evaluate the relationship between human population growth and other environmental problems.
- Demonstrate the collection, analysis, and reporting of data using the scientific method.
- Describe the scientific principles that underlie the dynamics and energy flow within natural ecosystems.
- Summarize the connections and importance between the biogeochemical cycles.
- Describe the structure and function of ecosystem components.
- Identify the problems associated with human health and environmental toxicology.
- Discuss the problems associated with air pollution, water and soil pollution, and solid and hazardous waste.

**Additional Student Learning Outcomes:**
- Lab attendance
- Completion of all Labs, pre-lab quizzes, write-ups and exams
- Reading of assigned textbook materials
- Reading of any assigned supplemental materials

**Method of Evaluation:**
- In the lab portion of this course, there will be 2800 points:
  - Thirteen (13) lab assignments (100 points each), twelve of which will be counted
  - Eleven pre-lab quizzes (PLQs), variable points (200 points in total)
  - A cumulative mid-term (worth 700 points, or 25% of lab grade)
  - A cumulative final exam (worth 700 points, or 25% of lab grade)
- Lab counts for 35% of the course grade. As the lab is part of the course, final grades for the course will be based on percentage of total points earned by the student, given by the sum of (1) and (2):
  - (1) Total accumulated lab points divided by total possible lab points multiplied by 0.35.
  - (2) Total accumulated lecture points divided by total possible lecture points multiplied by 0.65.

**Grading Scale:**
100-90 = A
80-89 = B
70-79 = C
60-69 = D
<60 = F
Note the lack of decimal points. After a final lab grade is calculated, I round it. **Example:** 65.5% rounds to 66% **Example:** 89.4% rounds to 89%

**Attendance Policy:**
- Attendance at all lab sessions is mandatory.
- I close the door within the first 10 minutes of lab. I **will not accept** lab work that is turned in after this 10 minute window.
- After the door is closed, a short, pre-lab quiz will be given. If you are late to lab and miss a PLQ, it cannot be made up.
- For the **midterm:** If you know you are going to be absent on the day of the midterm, arrangements (with a valid, official excuse – medical, funerary, business-related conference, jury duty, or military only – accepted at my discretion) must be made with me in person at least one lab period before the exam. In cases of emergency, valid documentation must be presented the class period following the absence or the absence will be considered unexcused and the exam grade will be 0 points.
- For final exam: The final lab exam must be taken by all students on the last day of lab (see schedule below) in the lab room (U-123). Unless you have a documented excuse (as above), an absence on the day of the final will result in a grade of zero (0) for the final. If your absence was due to a valid emergency (see above), you **must make arrangements for a make-up exam** with me (in person or via email) **within 24 hours** of the original exam date/time. Failure to do so will result in a grade of zero (0) for the final.
- Absences on exam days without valid documentation will result in a zero for that exam.
  
  Note: I reserve the right to substitute alternate examinations for make-up tests.

**Withdrawal Policy:**
The last day to withdraw from fall 2012 classes is October 19th, 2012.

**Americans with Disabilities Act:**
Collin College will adhere to all applicable federal, state, and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal opportunity. It is the student’s responsibility to contact the ACCESS office, CPC-D-118(l) or 972.548.6816 (V/TTD: 972.881.5950) in a timely manner to arrange for appropriate accommodations.

**Collin College Academic Policies:**
Every member of the Collin College community is expected to maintain the highest standards of academic integrity. Collin College may initiate disciplinary proceedings against a student accused of scholastic dishonesty. Scholastic dishonesty includes, but is not limited to, statements, acts, or omissions related to applications for enrollment or the award of a degree, and/or the submission of one’s own work of material that is not one’s own. Scholastic dishonesty shall involve, but is not limited to, one or more of the following acts: cheating, plagiarism, collusion, use of annotated texts or teacher’s editions, use of information about exams posted on the Internet or electronic medium, and/or falsifying academic records.
specific examples are listed below, this is not an exhaustive list and scholastic dishonesty may encompass other conduct, including any conduct through electronic or computerized means:

**Plagiarism:** The use of an author’s words or ideas as if they were one’s own without giving credit to the source, including, but not limited to, failure to acknowledge a direct quotation.

**Cheating:** The willful giving or receiving of information in an unauthorized manner during an examination; collaborating with another student during an examination without authority; using, buying, selling, soliciting, stealing, or otherwise obtaining course assignments and/or examination questions in advance; copying computer or Internet files; using someone else’s work for assignments as if it were one’s own; or any other dishonest means of attempting to fulfill the requirements of a course.

**Collusion:** Intentionally or unintentionally aiding or attempting to aid another in an act of scholastic dishonesty, including but not limited to, failing to secure academic work; providing a paper or project to another student; providing an inappropriate level of assistance; communicating answers to a classmate about an examination or any other course assignment; removing tests or answer sheets from a test site; and allowing a classmate to copy answers.

In cases where an incident report has been filed for an alleged violation of scholastic dishonesty, faculty are requested to delay posting a grade, for the academic work in question, until the Dean of Students Office renders an administrative decision in the case. Students found responsible for scholastic dishonesty offenses will receive an authorized disciplinary penalty from the Dean of Students Office. The student may also receive an academic penalty in the course where the scholastic dishonesty took place. The professor will determine the appropriate academic penalty.

**Course Calendar:** Students must access supplements/exercises for all labs on Blackboard

<table>
<thead>
<tr>
<th>Date</th>
<th>Lab Topic and assignment</th>
<th>What is Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>August 29</td>
<td>General Information, Lab Health and Safety Procedures Lab 1 – Mathematics &amp; Environmental Science</td>
<td>nothing</td>
</tr>
<tr>
<td>September 5</td>
<td>Lab 2 – Interpreting Graphs</td>
<td>Lab 1 Due</td>
</tr>
<tr>
<td>September 12</td>
<td>Lab 3 – Population Dynamics</td>
<td>Lab 2 Due</td>
</tr>
<tr>
<td>September 19</td>
<td>Lab 4 – The Scientific Method</td>
<td>Lab 3 Due</td>
</tr>
<tr>
<td>September 26</td>
<td>Lab 5 – Fish Kill Investigation</td>
<td>Lab 4 Due</td>
</tr>
<tr>
<td>October 3</td>
<td>Lab 6 – Soil Characterization</td>
<td>Lab 5 Due</td>
</tr>
<tr>
<td>Date</td>
<td>Lab Description</td>
<td>Due Date</td>
</tr>
<tr>
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<td>------------------------------------------------------</td>
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</tr>
<tr>
<td>October 10</td>
<td><strong>Lab 7</strong> – Biodiversity</td>
<td><strong>Lab 6 Due; study for midterm</strong></td>
</tr>
<tr>
<td>October 17</td>
<td>“Lab 8”— Mid-Term (Scantron Needed)</td>
<td><strong>STUDY!</strong></td>
</tr>
<tr>
<td>October 24</td>
<td><strong>Lab 9</strong> – Toxicity Testing and the LC₅₀</td>
<td><strong>Lab 7 Due</strong></td>
</tr>
<tr>
<td>October 31</td>
<td><strong>Lab 10</strong> – Project Planning</td>
<td><strong>Lab 9 Due</strong></td>
</tr>
<tr>
<td>November 7</td>
<td><strong>Lab 11</strong> – Wastewater Treatment</td>
<td><strong>Lab 10 Due</strong></td>
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<td></td>
<td><strong>Lab 13</strong> – Risk Assessment</td>
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<tr>
<td></td>
<td>(this will be a homework Assignment due next week, November 15th)</td>
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<tr>
<td>November 14</td>
<td><strong>Lab 12</strong> — air quality</td>
<td><strong>Lab 11 and 13 Due</strong></td>
</tr>
<tr>
<td>November 21</td>
<td>No lab; Thanksgiving Break</td>
<td><strong>Nothing</strong></td>
</tr>
<tr>
<td>November 28</td>
<td><strong>Lab 14</strong> – Solid Waste</td>
<td><strong>Lab 12 Due; study for final exam</strong></td>
</tr>
<tr>
<td>December 5</td>
<td>“Lab 15” Final (scantron needed)</td>
<td><strong>Lab 14 Due</strong></td>
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</tbody>
</table>

**Lab Rules:**
1. NO OPEN-TOED SHOES
2. NO FOOD OR DRINK
3. LAB ROOM DOOR CLOSED 5 MINUTES AFTER LAB STARTS
4. STUDENTS MUST COMPLY WITH ALL LABORATORY SAFETY RULES AND PROCEDURES
5. STUDENTS ARE NOT ALLOWED IN THE LAB UNLESS ATTENDED BY A FACULTY OR LAB-STAFF MEMBER

These regulations are in place for your safety. Violation of any of these regulations will result in the student being expelled from lab for that day. Lab work missed in this manner cannot be made up.

**Late Work and the Lab Pass:**
- All labs must be completed and handed in by the start of the following lab period, unless otherwise noted, or else a grade of zero (0) will be earned for that lab. Lab work is considered late if it is not handed in, in person, by the start of the lab (when I collect it from everyone).
- Students can only turn in lab work for which they were present. If you miss a lab period, regardless of the circumstances, you cannot make up the lab that was missed that week.

-No late labs will be accepted
- One lab pass will be issued. This lab pass can replace one (1) lab. It cannot be used in place of an exam. You are still responsible for the material. Keep in mind that if you miss a lab period, you are actually missing two labs (the one that was due that day and the one that was assigned).
  o If you hand in a lab pass, your other 12 labs will be graded (whether you were there for them or not)
  o If you do not use your lab pass, I will drop the lowest lab grade.

Rules regarding lab submission:
- Some labs have portions that must be filled out in the lab packet itself, others require formal, typed write-ups, and still others a combination of the two.
- In a nut-shell, follow the directions proffered by each lab regarding what, where and how to complete a given lab exercise.

Pre-lab quiz calendar:
- These quizzes will be given after labs are collected every week. There are no make-up quizzes.
- The amount of points for each quiz will vary from week to week. In total, all of the quizzes will amount to 200 points

<table>
<thead>
<tr>
<th>Quiz name</th>
<th>Date of quiz</th>
<th>Tested Reading material</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLQ#1</td>
<td>September 5</td>
<td>Lab 1 and 2</td>
</tr>
<tr>
<td>PLQ#2</td>
<td>September 12</td>
<td>Lab 3</td>
</tr>
<tr>
<td>PLQ#3</td>
<td>September 19</td>
<td>Lab 4</td>
</tr>
<tr>
<td>PLQ#4</td>
<td>September 26</td>
<td>Lab 5</td>
</tr>
<tr>
<td>PLQ#5</td>
<td>October 3</td>
<td>Lab 6</td>
</tr>
<tr>
<td>PLQ#6</td>
<td>October 10</td>
<td>Lab 7</td>
</tr>
<tr>
<td>PLQ#7</td>
<td>October 26</td>
<td>Lab 9</td>
</tr>
<tr>
<td>PLQ#8</td>
<td>October 31</td>
<td>Lab 10</td>
</tr>
<tr>
<td>PLQ#9</td>
<td>November 7</td>
<td>Lab 11 and 12</td>
</tr>
<tr>
<td>PLQ#10</td>
<td>November 14</td>
<td>Lab 13</td>
</tr>
<tr>
<td>PLQ#11</td>
<td>November 28</td>
<td>Lab 14</td>
</tr>
</tbody>
</table>

Grading and notification of grades:
I will generally have lab assignments graded within a week of their due dates, the same holds true for exams. If, at any time during the semester, you would like to know your standing in the class, send me an email (cougar mail only, I will not discuss sensitive information through personal emails) or visit me during my office hours. I will not give out nor will I discuss grades during class.
Emails:
I check my campus email (sburkett@collin.edu) regularly during the week and infrequently on the weekends. All correspondences by me will be through your campus emails (and not outside emails). Any questions/requests will be responded to (barring extenuating circumstances) within 24 hours of the submission of the email. **Do not email me through Blackboard.**

Bonus Opportunities:
-I will offer one bonus activity this semester. TBA

Use of Electronic Devices:
-The use of all electronic devices is prohibited during class unless required for and with written permission presented in the case of ADA.
-Electronic devices include, but are not limited to the following: Laptops, PDAs, i-anythings, hand-held gaming systems, recording devices, cameras, electric-cattle-prods, robotic body guards, tamagotchi, cell phones, etc...
-If a cell phone goes off during class, I will confiscate it and talk to the person on the other end for as long as I see fit. The phone will remain in my possession until the end of the lab when it will be returned to the offending student. Continued violations will result in the student being referred to the Dean of Students.
-Cell phones cannot be used as calculators.
-If you are expecting a life or death phone call from someone in your immediate family or something else that requires you to be contacted via cell phone, let me know before lab begins.
-Recording devices are expressly prohibited.

Change of Syllabus:
-should disruptive activity and/or rare/extreme circumstances/events require me to do so, I reserve the right to amend this syllabus.
-Students will be notified of any changes that do occur, and an updated version of the syllabus will be posted on Blackboard.
-Newer policies will take precedent over old policies.

Religious Holy Days:
Please refer to the current *Collin Student Handbook*