BIOL 1401 INTRODUCTORY ENVIRONMENTAL SCIENCE LAB
Spring 2018

This Syllabus is Subject to Change for Logistical and/or Pedagogical Reasons at the Discretion of the Biology Lab Coordinator!

Laboratory Coordinator: **Mrs. Rose**
LDB 300-F
(936) 294-1542
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Lab Instructor:

→ This Lab Class will meet in the Lee Drain Building room 303.

- **Required Books (Yes, this means you *really* need to get the books!):**

The A Game: Nine Steps to Better Grades, *1st edition,* Kenneth J. Sufka, Nautilus Publishing. ISBN # 978-1-936946-02-0 **You will find the information in this book EXTREMELY HELPFUL if you apply it to your entire academic life! ☺ Students applying this information to their academics have reported a one to two letter grade increase in their grades in ALL courses; that translates to a much improved GPA! ☺**

Read pages 19-23 and you will understand why it is so very important for you to purchase your books and READ them BEFORE coming to lab (or even to your lecture).

The textbook for lecture will be extremely helpful. *Environmental Science 10th edition,* by Chiras. Jones & Bartlett Publishing. ISBN 978-1-284-0575-8.

All lab exercises will be posted on BlackBoard for you to print, read, and bring with you to lab class.

If you choose not to purchase/print the appropriate reading materials and/or not to read them, please do not expect to do well in this lab course. Earning "good" grades (in any course) requires the student to commit to being in class, prepared before class, fully engaged in class, and studying appropriately when not in class. Always remember, "There is a big difference between can't and won't." (Dr. Kenneth Sufka)

Lab Dates:	Lab Exercises To Be Read BEFORE Coming to Lab Class:
29 & 30 January 2018	Read Environmental Science Lab Course Syllabus & Peer Evaluation Form Read "The A Game: Nine Steps to Better Grades" by Kenneth J. Sufka Be prepared to take an individual multiple choice quiz over these readings and the syllabus. *"Rising Temperatures, Differing Viewpoints: A Case Study on the Politics of Information"* by Christopher Hollister, SUNY Buffalo
01 February 2018	**12th Class Day and the LAST Day to change your lab schedule!** **LAST DAY to drop a course without receiving a Q on your transcript!**

05 & 06 February 2018	Individual Quiz over previous lab's material and any assigned reading. ***An Introduction to Ecology, Food Chains, Food Webs and Energy Flow*** Team weekly grade is Food Chains/Webs & Energy Flow exercise.
12 & 13 February 2018	Individual Quiz over previous lab's material and any assigned reading. ***How do nutrients cycle through an ecosystem, biome or globe?*** Team Grade = Exercise from 'nutrient cycling'
19 & 20 February 2018	Individual Quiz over previous lab's material and any assigned reading. ***'Bench Top Forest' Tree Sampling Exercise*** TEAM GRADE
26 & 27 February 2018	Individual Quiz over previous lab's material and any assigned reading. ***Biodiversity Lab!*** TEAM GRADE
05 & 06 March 2018	**Mid-Term Exam** given during your regular lab time. This includes all lab topics and readings covered up to now**. Taken and scored as individuals – this is NOT a GROUP test!**
12-16 March 2018	
19 & 20 March 2018	***Authentic Ecology Field Investigation: Part One*** Field trip to Field Station to set up pit-fall traps. **Part One Field Work Observation Form, Conclusion, and Discussion** = TEAM GRADE
26 & 27 March 2018	***Authentic Ecology Field Investigation: Part Two*** Field trip to Field Station to retrieve pit-fall traps and begin collecting data. **Part Two Observation and Measurement Summary** = TEAM GRADE
02 & 03 April 2018	Individual Quiz over previous lab's material and any assigned reading. ***Authentic Ecology Field Investigation: Part Two Data Analysis, Conclusion, & Discussion*** = TEAM GRADE
06 April 2018	**The LAST DAY to DROP a spring course with a "Q."**

09 & 10 April 2018	Individual Quiz over assigned reading. ***An Inquiry Based Laboratory Investigation of Eutrophication*** Teams will plan layout of experiment and collaborate with other teams & lab sections to optimize experimental design. **Set-up Eco-columns.** **Test soil and water in Eco-columns using test kits.** Team weekly grade is rough draft of experimental design and watering schedule.
16 & 17 April 2018	**Teams collect Final water and soil data from eco-columns.** Teams submit ROUGH DRAFT of **Introduction** and **Materials & Methods** for *An Inquiry Based Laboratory Investigation of Eutrophication Report and an* OUTLINE of **Results** and **Discussion** (this is the Team weekly grade) Share Data/Prepare Handouts of data from Eutrophication Project Teams work on Rough Drafts of Eutrophication Project Paper.
23 & 24 April 2018	**Teams Turn In FINAL COPY of Eutrophication Project Report – TEAM GRADE! This actually counts as TWO team grades!** **Final Exam** given during your regular lab time. This test will include questions regarding all topics covered since the mid-term exam; please remember that some of these topics are also directly related to topics covered earlier in the semester. You will need a scantron 882-E for the multiple-choice portion of the exam. We will provide you with an answer sheet for the Fill-In-The-Blank Practical and/or essay questions.

Responsibilities of The Lab Student

Preparation *Before* your lab period, **read** the laboratory exercise thoroughly. Underline items of procedure and terms which are not clear to you. Careful reading of the assignment prior to the laboratory is like studying a road map before making a trip; it helps to know where one is going. Read any relevant background material in your textbook (whichever one your lecture professor used will suffice). Reading the material before class promotes better learning during class and consequently better grades.

Use and Care of Equipment Understand the directions for proper use of equipment prior to turning knobs or flipping switches. The life and usefulness of even the simplest item of equipment is lengthened by observing proper care and respect.

Work Area For your safety, please keep your work area neat and clean. Paper, specimens, and used chemicals are to be disposed of in the receptacles indicated by your instructor. Do not leave your lab table cluttered. Do not dump trash items in the sinks or broken glass containers! Before leaving the laboratory be certain that your lab table is clean, all equipment and lab materials are returned to the designated storage areas, and you lab stool is pushed back in place at the table. Please leave your work area neat and clean for the next students.

Laboratory Safety For your safety, please use care and respect in handling all chemicals. Clothing can be damaged by spills, and injury to the skin can occur. When a caustic chemical comes in contact with the skin or in the eyes, immediately flood the affected area with copious amounts of water. The eye wash station is located at one of the sinks in the laboratory. Flushing the affected area for at least 15 minutes is recommended. Clothing that is contaminated should be removed and washed before being worn again. The handling and heating of chemicals should be done with care. Use protective goggles to prevent eye injury. First aid kits are in each lab room as are fire extinguishers. Always follow any safety procedures outlined by your lab instructor.

Attendance Policies

This course abides by University Policy and Regulations concerning attendance (See the Undergraduate Catalog). Accordingly, "regular and punctual attendance is expected of each student at Sam Houston State University. Regular, punctual attendance in *all* labs and lectures enhances your learning experience. Additionally, in a course such as this, in which group effort is such a significant part of the grade, students *genuinely need* to come to class so they can contribute to their group's success. Those who are prepared and contribute positively will be highly valued by their group! In short, attendance matters; so, please take advantage of the opportunity to learn, to help your group, and to excel by coming to *all* classes.
It is almost impossible to "make-up" a lab. Your work is done with your group!

1. In addition to the required attendance policy, it is important that you please come to class on time. Also, please do not leave the class room early unless you are sick or have cleared it with the lab instructor before class begins**.**

2. Make-up exams are only allowed based on the lab coordinator's approval. **In order for an exam to be made up, some form of documentation MUST be provided, such as a doctor's note, a legal notice, a note from the SHSU athletic/orchestra/choir/band director, etc… This is not "High School," a note from Mom or Dad is not valid documentation.**

3. **School Related Absences** Students involved in school related events and activities will be allowed to reschedule their lab class when conflicts arise. ***Prior to the absence,*** the student must bring a written confirmation of participation in the activity from the faculty sponsor to the Laboratory Coordinator in LDB 300-F. Arrangements will be made for the student to make up the absence. ***You Must Do This BEFORE your absence! If you contact Mrs. Rose after the fact, it is too late.***

Academic Honesty: All students are expected to engage in all academic pursuits in a manner that is above reproach. Students are expected to maintain complete honesty and integrity in academic experiences both in and out of the classroom. 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. Removing a copy of the quiz or exam from the lab room is considered academic dishonesty. Accepting a copy of a quiz or exam outside of the lab room is also academic dishonesty. Plagiarizing any materials from any source is also academic dishonesty. Any student found guilty of dishonesty in any phase of academic work will be subject to disciplinary action that is consistent with university policies. Please read the following:

Students are encouraged to study in groups to *prepare* for lab pre-quizzes and complete lab exercises. However, "group effort" is definitely not permitted when taking a pre-lab quiz, Mid-term or Final Exams! This will result in an automatic zero on the quiz or exam and can result in an F in the course.

Proper Course Behavior: All of these rules are standard and are based on common courtesy, respect, and honesty. The purpose of these rules is to help maintain a positive classroom environment for learning. You may notice that some of these statements are made more than once; that's because they are important and essential to a successful classroom environment!

1) Students will refrain from behavior in the classroom that intentionally or unintentionally disrupts the learning process and, thus, impedes the mission of the university. ***Cellular telephones, pagers and ALL other electronic equipment must be turned off before class begins***. Your lab instructor may occasionally allow use of electronic devices when they are used for educational purposes during a lab exercise. **Students are prohibited from eating or drinking in class, using tobacco products,** making offensive remarks, reading newspapers, sleeping, talking at inappropriate times, wearing inappropriate clothing, or engaging in any other form of distraction. Inappropriate behavior in the classroom shall result in a directive to leave class. Students who are especially disruptive also may be reported to the Dean of Students for disciplinary action in accordance with university policy.

   Any successful learning experience requires mutual respect on the part of the student and the instructor. Neither instructor nor student should be subject to others' behavior that is rude, disruptive, intimidating, or demeaning. The instructor has primary responsibility for and control over classroom behavior and maintenance of academic integrity.

   Instructor responsibilities:
   - Start and end class on time.
   - Treat all students with courtesy and respect.
   - Be open to constructive input from students in the course.
   - Ensure that opportunities to participate are enjoyed equally by all students in the course.

   Student responsibilities:
   - Come to class on time and prepared, and refrain from packing up belongings before class ends.
   - Turn off all electronic devices that might create a disruption in class.
   - Be quiet, give full respectful attention while either the instructor or another student is speaking.
   - When speaking, use courteous, respectful language and keep comments and questions relevant to the topic at hand.

2) Please come to class on time—there is no reason to be late to class on a frequent basis. If you arrive late, you may miss the quiz and ***will not be allowed*** to make up the missed quiz or work. It is always to your advantage to be present and on time. Be prepared by reading assignments before coming to lab.

3) Please remain in class until it is finished. **Leaving early will count as an absence unless it is an emergency that you clear with the lab instructor**.

4) ***For Your Safety Please Observe the Following Requirements:*** *Do not* bring food or drink into the lab. *Do wear* enclosed shoes and long pants to lab. Please *do not wear* sandals or any other type of open shoe in the lab room. Please be aware that the lab instructor will ask you to leave lab if your attire is deemed unsafe for the lab environment. You may want to carry a spare pair of shoes and/or full length jeans in your bag as a back-up set of clothes.

5) Hats must be removed and put away during lab.

6) During lab, especially during quizzes and exams, cell phones and any other equipment capable of receiving, recording and/or transmitting information, must be put away in a book bag or purse. In short, it must not be readily accessible or accessed during an exam. ***The use of such devices during a quiz or exam will result in a zero for that test and possibly the lab course.*** Chatting and/or texting/tweeting/posting/blogging on the phone during lab (even in the hallway) is a waste of your lab/learning time as well as your group's time; it's also a rude way to treat your classmates.

7) DO NOT LEAVE THE ROOM DURING AN EXAM or QUIZ! If this happens, the test will be taken up and you will NOT be allowed to finish.

8) **Visitors in the Classroom**: Unannounced visitors to the classroom must present a current, official SHSU identification card to be permitted in the classroom. They must not present a disruption to the class by their attendance. If the visitor is not a registered student, it is at the instructor's discretion whether or not the visitor will be allowed to remain in the classroom. This policy is not intended to discourage occasional visiting of classes by responsible persons.

9) **Americans with Disabilities Act**: 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

10) **Religious Holy Days**: Any student that will miss lab due to Religious Holy Day(s) must notify the Laboratory Coordinator in writing BEFORE the absence occurs and present appropriate documentation of the reason for the absence. Any assignment or exams that will be missed due to the absence should be completed within a reasonable time (as deemed by the lab coordinator) after the absence, or *preferably before* the absence. This will help you stay on track and not fall behind in the material.

11) **Special Circumstances**: If unusual circumstances arise during the semester, such as a medical problem, death in the family, etc., which adversely affects your attendance PLEASE discuss this with the lab coordinator ***immediately*** and provide documentation. Under these conditions, we will gladly do our best to accommodate your situation. However, if you wait until after-the-fact, at the end of the semester, to let the lab coordinator know that you were experiencing these adverse circumstances, there is nothing that can be done about it at that time. ***We cannot retroactively make accommodations and do not give extra credit assignments to make up for grade deficiencies.***

Grading Policies

Lab grades will be determined as follows:
30% = Average of daily individual pre-lab quiz
30% = Average of team lab exercise grades multiplied first by your peer evaluation grade
20% = Mid-term Exam (this is an individual grade)
20% = Final Exam (this is an individual grade)

Please notice that 70% of your lab grade is based solely on your individual effort in lab; it is extremely important that you read and are prepared for lab (and your pre-lab quizzes) each day. You must also be prepared to do well on the final exam. The portion of your grade resulting from group work is only 30% and will first be weighted by the peer evaluation score you receive from your learning team mates. This score can only hurt your grade if you are an unproductive and/or unprepared and/or absent team member.

Use only this syllabus and instructions from your lab instructor to determine what your lab course grade will be.

DROP GRADE POLICY
Students with ***no absences*** will be allowed to drop their lowest individual lab quiz and one lowest group lab exercise score earned. ***If a student misses a lab*** during the semester and does not (or cannot ***for whatever reason***) make it up the same week, that set of zeroes will be the student's one and only drop grade set. Please use this set of drop grades judiciously, save it for an emergency! It is always in your best interest to attend your regular lab section and work with your learning team.

How will your lab grade affect your overall BIOL 1401 Environmental Science Course grade?

The lab grade will be equivalent to 25% of the course grade. The lecture grade will be 75% of the course grade. You cannot hope to earn better than a "C" in the course if you do not successfully complete your lab. Please be certain to read your lecture syllabus for any further details regarding overall course grading policies.

How to handle questions regarding your lab grade or other issues with your lab:

1. Make an appointment to talk to your lab instructor in person.
2. Visit with your lab instructor, in person, about your grade.
3. If you need a grade report form signed for an organization on campus, you must visit with your lab instructor, in person. *Do not contact Mrs. Rose for this signature.*
4. Do not contact your lab instructor immediately before or after lab, plan ahead.
5. If you still have questions regarding your lab grade or other issue, schedule an appointment with Mrs. Rose together with your lab instructor.
6. Please remember that we cannot discuss grades in the hallway, over the phone, or through email; this is to protect your privacy.

Cooperative Learning and Peer Evaluation:

In this class, students will be divided into teams by the instructor in such a way as to ensure maximum diversity in the team and to prevent cliques from forming in the class. Each team will consist of about 6 students which will work together throughout the semester on lab exercises. As you will see, **team scores are usually better than individual scores, and so this process normally *improves* an individual's grade**. In addition, *team effort helps everyone learn the material better because everyone is involved in teaching one another*. So, when individuals participate appropriately in this process, individuals normally do better on tests as a result.

Many students are initially uneasy about the idea of working in teams because it is often the case that some members of the team end up doing all or most of the work, while others do little or nothing. This will **not be a problem** in this course because of both the peer evaluation process, as well as the importance of the evaluation to a student's grade. The procedures for performing peer evaluations are clearly stated on the Peer Evaluation Form available on your lab section's BlackBoard.

This evaluation process will be completed *each* time the lab meets. **Each time the evaluation is completed, it should be done in private and kept confidential. Do not discuss the evaluation with your team members or complete it in their presence.** Your lab instructor will guide you in this process.

The lab pre-tests are, 10-20 question quizzes that cover the reading material upon which the lab is based and may also include review of previous labs. So, by reviewing relevant reading material, one can readily prepare for these quizzes. *The pre-lab quizzes are completed by individuals at the beginning of the lab period.*

The lab activities are also completed as a team activity. Every individual team member present MUST complete the lab exercise in their own lab manual BEFORE the lab instructor will accept the group answer sheet. **Only team members present (with a completed labexercise) will receive credit for the lab exercise that day.**

Mid-Term & Final Exams These will review all material covered in lab. Questions may be worded in a fashion very similar to those seen on the weekly quizzes and will include numerous fill-in-the-blank/essay questions. You must take these exams with your regularly scheduled lab section. ***This will be taken and scored as Individuals!***

Any student taking a "make-up" final exam must present appropriate documentation for their absence from their regularly scheduled exam. Example: doctor's note, obituary, court summons, proof of incarceration during exam time, etc. **These students must also present a photo ID when attending the "make-up" exam.** If a student misses their regular exam and does not contact the lab instructor or lab coordinator immediately, they will either not be allowed to make-up the exam, or they may be required to complete an essay exam pending presentation of appropriate documentation. ***No student will be allowed to complete a make-up exam without appropriate documentation. No Exceptions!*** If you are sick enough to miss a major exam, then you really need to see a doctor! Inappropriate reasons for missing an exam include, but are not limited to: "I forgot," "I didn't know it was this week," "My alarm clock didn't go off," "I couldn't find a parking space," "I had/have another test the same day," etc.