Course Description:

This laboratory is designed to reinforce course materials. Students begin the semester with a study of populations, ecology and ecosystems. We will study the interactions between organisms and their environment, and each other. We will look at organismal relationships, such as trophic structure and the importance of predation in ecosystems.

The second part of the semester will involve the study of the atmosphere and air pollution. We will study the atmosphere, its composition and dynamics of weather systems. The focus will be on the effect of climate and weather on pollution. This will include the study of precipitation and the formation of acid rain, acid snow and dry acid deposition. Students will learn about chemical tests for air and water pollution and will conduct some of these analyses.

<table>
<thead>
<tr>
<th>Date</th>
<th>Lab Subject(s)</th>
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<tbody>
<tr>
<td>8.26</td>
<td>Species</td>
</tr>
<tr>
<td>9.2</td>
<td>Populations</td>
</tr>
<tr>
<td>9.9</td>
<td><strong>No Laboratory, Labor Day</strong></td>
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<tr>
<td>9.16</td>
<td>Communities/Energy Flow</td>
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<tr>
<td>9.23</td>
<td><strong>Lab Test #1</strong></td>
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<tr>
<td>9.30</td>
<td>Atmosphere #1</td>
</tr>
<tr>
<td>10.7</td>
<td>Atmosphere #2</td>
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<tr>
<td>10.14</td>
<td><strong>No Lab, Fall Break</strong></td>
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<tr>
<td>10.21</td>
<td>Weather Prediction (Guest Lecturer)</td>
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<td>10.28</td>
<td><strong>No Lab</strong></td>
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<tr>
<td>11.4</td>
<td><strong>Lab Test #2</strong></td>
</tr>
<tr>
<td>11.11</td>
<td>Sampling for Environmental Hazards (air)</td>
</tr>
<tr>
<td>11.18</td>
<td>Water Sampling</td>
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<tr>
<td>11.25</td>
<td><strong>No Laboratory, Thanksgiving</strong></td>
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<tr>
<td>12.2</td>
<td><strong>Lab Final Examination</strong></td>
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Comprehensive Final Examination (12/2/15, 1:10 to 4:00 PM)
Learning Goals:

The laboratory has several general goals. These include enhancement of basic content knowledge, to reinforce classroom instruction and to teach students basic laboratory techniques. This will be accomplished by instruction in the following subject areas:

1. The individual and role of competition in population dynamics.
2. Community structure and mosaic concept in communities.
3. Ecosystem structure and function on micro-, macro- and global-scales.
4. Food chains and food webs in ecosystem development.
5. The structure and composition of the atmosphere.
6. The water cycle and role of air pollution.
7. The role of weather and weather systems in the severity of air pollution.
8. Conducting an inventory for sources of air pollution.
9. Sampling and sample analyses for air and water pollution.

Required Readings/Materials:


Calendar - Assignments and Due Dates:

1. Test #1 September 24
2. Test #2 November 4
3. Laboratory Final December 2
4. Weekly labs Due at beginning of following class or as instructed

Computation of Grades:

<table>
<thead>
<tr>
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<th>Percentage</th>
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<tbody>
<tr>
<td>Test #1</td>
<td>25%</td>
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<tr>
<td>Test #2</td>
<td>25%</td>
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<tr>
<td>Labs</td>
<td>25%</td>
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<tr>
<td>Lab Final</td>
<td>25%</td>
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Grading Scale:

- 93-100 A
- 90-93 A-
- 87-89 B+
- 83-86 B
- 80-82 B-
- 77-79 C+
- 73-76 C
- 70-72 C-
- 67-69 D+
- 60-66 D
- 59 and Lower F

Expectations of Students:

Academic Dishonesty:

“The penalty for an incident of academic dishonesty is, at the discretion of the professor, either a mark of zero for the work in question or the grade of “F” for the course. A student guilty of two incidents of academic dishonesty will be dismissed from the university.”

Undergraduate Catalog

Turning in Assignments and the Final Examination: Students must submit all major assignments in order to take the final examination. Failure to complete the course (by not turning in assignments) will result in failure of the course.

Tests: Tests will be of the multiple choice, true/false, matching and short answer types. The lab tests will also have practical portions. If you are absent on test day, you will NOT be able to make up the test unless you can produce a written university excuse or doctor’s note.

NOTE: The University of St. Thomas abides by the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973, which stipulates that no student shall be denied the benefits of an education "solely by reason of a handicap." If you have a documented disability that may impact your performance in this class and for which you may require accommodations, you must be registered with and provide documentation of your disability to Counseling Services/Disability Services which is located on the second floor of Crooker Center. Contact Debby Jones, Chris Ellerbee, or Rose Signorello at 713-525-6953, 713-525-6983, or 713-525-3162.

Students that need special arrangements for testing, note taking, or other course related matters must ask to have the instructor notified. In the absence of notice, no special arrangements may be made. You must inform me sufficiently in advance for each test/assignment when you require alternative arrangements or none will be allowed.

Campus Emergency Information: www.stthom.edu/Ready

Participation: In the laboratory, class participation is an important part of the learning process. Variations in points of view are encouraged and will be treated with
respect. Students will work in groups on certain assignments and are expected to be part of their groups. Any student not working within the group setting will receive a grade of zero for the day’s assignment.

**Academic Dishonesty**

**For Tests:**

Cheating on tests includes taking/giving answers (both actively and passively) to test questions during the test, giving someone answers after the test to someone who has yet to take the test, and/or bringing in cheating materials (crib notes, preprogrammed calculators, cheat sheets) to this test. You need to understand that cheating on tests/assignments may result in either a grade of zero for this test/assignment or a grade of “F” for this course. Additionally, you need to understand that cheating will be reported on the academic misconduct form to the appropriate University authority.

**For Assignments:**

Academic dishonesty, in reference to assignments, includes copying someone else’s information and presenting it as your own (plagiarism), turning in materials photocopied directly from someone else and turning it in as your own work, allowing another student to turn in a copy of your work as their own with your knowledge, and/or cooperative work on an assignment where you are to work alone. You need to understand that cheating on tests/assignments may result in either a grade of zero for this test/assignment or a grade of “F” for this course. Additionally, you need to understand that cheating will be reported on the academic misconduct form to the appropriate University authority.

**For Lab Tests:**

While taking the lab test, you may be presented with opportunities to engage in academic dishonesty because of the arrangement of laboratory stations. I would remind you that you are to resist the temptation to “borrow” information from another student during this examination. During any portion of the lab test where you are required to move between sample stations, unless it is expressly stated that you are to work in groups, there will be no more than one person per sample location. Giving or receiving help, by exposing your tests paper so that another student can read your answers or by looking onto another student’s test, is academic dishonesty.

As proctors for the tests, we can only judge behavior, not intention. Because we can’t read your minds, we must observe your behavior during the test. If you look at another person’s paper, or talk to them during the test, that will be regarded as an incident of academic dishonesty and you will be called out based upon that behavior. You need to understand that cheating on this test/assignment may
result in either a grade of zero for the test/assignment or a grade of “F” for this course. Additionally, you need to understand that cheating will be reported on the academic misconduct form to the appropriate University authority.