INSTRUCTOR: Dr. Jim Heitholt  
email: Jim_Heitholt@tamu-commerce.edu  
Office: AgIT 135  
Office Phone: 903-886-5351  
Office Hours: MWF 9 am to 10 am, or by appointment  
Ms. Ashley Francis will be coordinating lab exercises and will also answer questions pertaining to the class if Heitholt is away.

SUGGESTED RESOURCES (text is not required but students are encouraged to obtain  
Other resources that will be referenced are Bidlack 2011 or Nabors, 2004  
Bidlack.

Course Meeting Time/Place: MWF 9 am – 9:50 am, STC 123; Lab Th at 1 pm or 3 pm, Sci 217

COURSE DESCRIPTION: This course is designed for students majoring in Agricultural Science, Plant and Soil Science, Wildlife and Conservation Science, and the Environmental Sciences. Students are introduced to the structure and function of plants as well as their diversity and ecology. Topics covered include the plant cell, anatomy, morphology, plant physiology, plant biochemistry, genetics, evolution, and classification. This course is designed to complement *BSC1413 General Zoology* with a minimum of overlap, but does include enough Genetics and other basics to prepare students for subsequent biology and life sciences courses.

Semester Hours: Four Lecture Lab/ Clock Hours (3 lecture, 2 lab)

LABORATORY: You must be enrolled in a BSc1411 laboratory section in order to receive credit for the course. The laboratory will account for 25% of your final grade. The laboratory sessions will begin the first week of classes. Be sure to attend all labs. You will receive a complete schedule, syllabus, and further instructions from your Lab Instructor at the first meeting.

ATTENDANCE: Attendance is mandatory and roll will be called at random for lecture. Attendance will be recorded for each lab. Repeated unexcused absences or disruptive behavior such as talking during lecture or repeated tardiness will negatively affect grades (especially if borderline); similarly good attendance and behavior will be rewarded via attendance/participation credit. Missing 20% or more of lecture (unexcused absences) will result in a grade of F for the course. Note that Labs have similar policies, and failing lab will virtually assure failing the course.

MATERIAL: This course is intended as a foundation-building course for several practical sciences, including students of Wildlife and Conservation, Animal Sciences, Plant and Soil Sciences, etc. You are expected to read all handouts and to allot adequate time to study the material on your own. If you miss a lecture, you are still responsible for that day's material - read the chapter, get notes from someone in class, and see Heitholt or for any clarification. If you have difficulty with the material, feel free to see Heitholt or Francis as soon as you can for advice on how best to improve your understanding of the material.
STUDENT LEARNING OUTCOMES

1. The student will describe the differences between a monocot and dicot.
2. The student will be able to name three stem types.
3. The student will be able to name three of the five characteristics that make plants different from other living entities.

2. EXAMS AND GRADING: Grades will be computed based on a “10-point scale” such that a total of 90% or higher of possible points will result in a grade of A, between 80% and 89.9% a B, and so on. If your total is lower than 60% of the class points you will fail the class and receive an F). Points can be earned as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
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<tbody>
<tr>
<td>4 exams (100 points each)</td>
<td>300</td>
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<tr>
<td>Laboratory</td>
<td>100</td>
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<tr>
<td>Extra Credit Possible</td>
<td>20</td>
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<tr>
<td><strong>Total BSc131 course grade</strong></td>
<td><strong>400</strong></td>
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*Note* that lecture counts for 75% of the total course points, whereas the laboratory counts for the other 25%. Professor will drop lowest lecture exam score unless that score is below 50 points; if that happens, all four scores will be averaged. At least one exam will be a take-home. In-class exams will be closed book.

Exams will be a mixture of short-answer and short-essay questions drawn from lectures, assigned readings, hand-outs, or websites. You are expected to read all assigned items, preferably including a preview of the material before class to facilitate questions and discussion. There are no drop grades for exams so take each exam seriously. Studying together can be highly beneficial, but exams and turned-in assignments must be done individually. Cheating, plagiarism, and disruptive behavior will not be tolerated.

Make-Up Work: In the case of a missed exam, with presentation of a valid and documented excuse you may arrange for a make-up exam. Such make-ups must be scheduled with instructor within three days of the missed test (if you are not in town, pick up the telephone or designate someone else to contact the instructor). Make-ups will be mainly short answer or essay in nature. Students failing to arrange a make-up will result in a score of zero for that test, and only one exam may be made up in this fashion. Extreme circumstances will always be taken into consideration but check with instructor immediately if unique issues arise.

**TOPICS**

**CHEMISTRY AND CELLS**
- Basic organic & inorganic chemistry, cell structure & function, photosynthesis & respiration

**GENETICS AND EVOLUTION**
- Cell reproduction, basic inheritance & molecular genetics, population genetics & patterns of evolution

**PLANT STRUCTURE AND GROWTH**
- Structure, development, transport and nutrition, reproduction (emphasis on seed plants).

**BIODIVERSITY OF PLANTS**
- Photosynthetic algae, fungi, and true plants
PLANT ECOLOGY
Plant ecology and conservation, including succession, pollination, and other interactive phenomena.

TENTATIVE SCHEDULE OF EVENTS*

<table>
<thead>
<tr>
<th>WEEK</th>
<th>START DATE</th>
<th>LECTURE TOPIC(S)</th>
<th>TESTING</th>
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<tbody>
<tr>
<td>1</td>
<td>Aug. 29</td>
<td>Pre-Test and Introduction: Plants &amp; Life</td>
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<tr>
<td>2</td>
<td>Sept. 5</td>
<td>Cells and Tissues</td>
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<td>3</td>
<td></td>
<td>Soil, Roots &amp; Stems</td>
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<tr>
<td>4</td>
<td></td>
<td>Leaves, Flowers and Seeds</td>
<td>Exam 1</td>
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<td>5</td>
<td></td>
<td>Water and Metabolism (photosynthesis)</td>
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<tr>
<td>6</td>
<td>Oct. 3</td>
<td>Growth and Hormones</td>
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<tr>
<td>7</td>
<td></td>
<td>Genetics</td>
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<tr>
<td>8</td>
<td></td>
<td>Propagation and Evolution</td>
<td>Exam 2</td>
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<tr>
<td>9</td>
<td></td>
<td>Prokaryotes and Viruses</td>
<td></td>
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<tr>
<td>10</td>
<td>Oct. 31</td>
<td>Protists and Bryophytes</td>
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<tr>
<td>11</td>
<td></td>
<td>Seedless Vascular Plants and Gymnosperms</td>
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<td>12</td>
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<td>Angiosperms and Civilization</td>
<td>Exam 3</td>
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<tr>
<td>13</td>
<td></td>
<td>Ecology</td>
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<td>14</td>
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<td>Conservation Biology</td>
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<td>15</td>
<td>Dec. 5</td>
<td>Wrap-Up</td>
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<td>16</td>
<td>xx</td>
<td>Final Exam Period (TBA)</td>
<td>Exam 4</td>
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*This schedule is a general outline for your reference and is subject to change. Any changes will be announced in class and at the course website(s); you will be responsible for keeping up with them. Cell phones/pagers must be silent during class time.

Important Dates:
HTTP://WEB.TAMU-COMMERCE.EDU/ADMISSIONS/REGISTRAR/DOCUMENTS/20112012ACADEMICCALENDAR.PDF

OTHER NOTES (INCLUDING OFFICIAL UNIVERSITY STATEMENTS)
It is the responsibility of the student to inform me of any problems you may have affecting your performance in class, be it due to professionally diagnosed disability, personal or work-related problems, or anything else that comes up, so that appropriate adjustments can be made.

Students with Disabilities:
The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:
Office of Student Disability Resources and Services, Texas A&M University-Commerce
Gee Library, Room 132, Phone (903) 886-5150 or (903) 886-5835, Fax (903) 468-8148
StudentDisabilityServices@tamu-commerce.edu

Regarding student conduct
“All students enrolled at the University shall follow the tenets of common decency and acceptable
behavior conducive to a positive learning environment. See Student's Guide Handbook, Policies and Procedures, Conduct.” Please be advised that students who are disruptive to class activities will be dropped from the class and may face further disciplinary action.

**Plagiarism**

“Plagiarism is a criminal activity. You must cite all sources of information. Copying of material, whether parts of sentences, whole sentences, paragraphs or entire articles, will result in a score of zero for your essay and can result in further disciplinary action.” Note that this is true throughout the University and we do have plagiarism-detecting software in place. Of special note in an online environment- “cut and paste” from websites without appropriate citation IS plagiarism, yet putting everything in quotation marks is not an acceptable alternative. You must learn to construct your own sentences with information you find (and changing a couple of words in a sentence or reordering sentences in a paragraph are not enough). If you have any questions about what is considered plagiarism or wish advice on avoiding it, please contact your instructor.

**EARLY INTERVENTION FOR FIRST-YEAR STUDENTS:**

Early intervention for freshmen is designed to communicate the University’s interest in their success and a willingness to participate fully to help students accomplish their academic objectives. The university through faculty advisors and mentors will assist students who may be experiencing difficulty to focus on improvement and course completion. This process will allow students to be knowledgeable about their academic progress early in the semester and will provide faculty and staff with useful data for assisting students and enhancing retention. Grade reports will be mailed by the end of the sixth week of the semester.