Course calendar. Please note that the final is Friday 6 July. This is the only Friday meeting of the summer I term.

<table>
<thead>
<tr>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 June, first day of class</td>
<td>5 June</td>
<td>6 June</td>
<td>7 June 1&lt;sup&gt;st&lt;/sup&gt; in-class team learning assignment. A tour of the cell, chapter 6.</td>
<td>8 June, no class on Fridays except for the final on 6 July</td>
</tr>
<tr>
<td>11 June</td>
<td>12 June</td>
<td>13 June 2&lt;sup&gt;nd&lt;/sup&gt; in-class team learning assignment. An introduction to metabolism, chapter 8.</td>
<td>14 June</td>
<td>15 June</td>
</tr>
<tr>
<td>18 June</td>
<td>19 June</td>
<td>20 June 21 June end of material for 1&lt;sup&gt;st&lt;/sup&gt; exam</td>
<td>First exam</td>
<td>22 June</td>
</tr>
<tr>
<td>25 June</td>
<td>26 June</td>
<td>27 June 28 June</td>
<td></td>
<td>29 June</td>
</tr>
<tr>
<td>2 July</td>
<td>3 July</td>
<td>4 July, no class</td>
<td>5 July</td>
<td>6 July, final exam</td>
</tr>
</tbody>
</table>

- 2<sup>nd</sup> in-class team learning assignment. An introduction to metabolism, chapter 8.
- 3<sup>rd</sup> in-class team learning assignment. Photosynthesis, chapter 10.
- 4<sup>th</sup> in-class team learning assignment. Mendel and the gene idea. Chapter 14.
Summer I 2012 has 19 class meetings. Lecture points make up 3/4 of your grade in the course. The remaining 1/4 of your grade is determined by the lab.

**Contact information**
Office Engineering 311. e-mail david.grise@tamucc.edu, phone 825 3477
**class web site:** Please see Blackboard
Office hours are posted on the class web site on Blackboard, other hours by appointment

**Course description:** Presentation of basic biological concepts including scientific method, cytology, energetics, nucleic acids and genetics. This course is suitable for all majors. This course counts toward the natural science component of the University Core Curriculum.

**Exemplarily education objectives for core courses met by bio 1406**
- To understand and apply method and appropriate technology to the study of natural sciences.
- To recognize scientific and quantitative methods and the differences between these approaches and other methods of inquiry and to communicate findings, analyses, and interpretation both orally and in writing.
- To identify and recognize the differences among competing scientific theories.
- To demonstrate knowledge of the major issues and problems facing modern science, including issues that touch upon ethics, values, and public policies.
- To demonstrate knowledge of the interdependence of science and technology and their influence on, and contribution to, modern culture.

**Learning outcomes for bio 1406**
- To recognize scientific and quantitative methods and the differences between these approaches and other methods of inquiry.
- Be able to formulate testable hypotheses and predications from these hypotheses.
- Have a functional knowledge of the theory of evolution and understand its importance as the unifying theme in biology.
- Understand the importance of biochemical pathways and the importance of cellular respiration and photosynthesis to organisms and the relationship between these processes.
- To identify and recognize the differences among competing theories about DNA as the genetic material and the mechanism of DNA replication.
- To understand the basic mechanisms of inheritance.
- Understand the importance of DNA to organism function and the mechanism of inheritance.
- To recognize DNA technology as an interdependence of science and technology and understand the influence of DNA technology on, and contribution to, modern culture.
- To understand and apply method and appropriate technology to the study of problems with a biological basis.
- Be able to collect, analyze and interpret results from experiments and communicate your findings to your colleagues.
A community of learners: You are part of the community of learners at Texas A&M University-Corpus Christi. I hope you are, or will become, an active member of this community. Each time I teach a course, I learn from students. I hope to establish an environment conducive to learning in my class. As a result of taking my class and working with your fellow students, I hope you learn how to learn about issues that have a biological basis. We should all be learning from each other and learning how to learn from each other. As a result of our collective efforts, I hope I continue to improve as an instructor and that you benefit from taking my course.

Team Learning: We will use a team learning approach in this class. Permanent groups will be established at the start of the course. Students will answer questions on their own then student groups will answer the SAME assignment. Groups will submit group consensus answers to questions. Research examining team learning assignments show that the group score is HIGHER than individual scores and that students understand concepts much better as a result of discussing questions in groups. We will use the team learning approach on in-class team learning assignments and lecture exams as described below.

In-class team learning assignments: Students will come to class having read the material in the text that is listed in the calendar above. In class, students will INDIVIDUALLY submit their own answers to questions about the text reading. Each in-class team learning assignment is worth 50 points. Your individual answers to these questions count for 40% of your score (20 points) for the in-class team learning assignment. The other 60% of the score (30 points) for each in-class team learning assignment will be based on your group’s answers to the questions. You are not permitted to use the text for either portion of the assignment. After the group portion of the exam is completed, you may use the text to better understand the answers to the questions or to appeal questions.

Exams: For both exams, students will INDIVIDUALLY take the exam during the first half of the class period. This score will constitute 75% of your 200 point exam score (150 points). The other 25% of your exam score (50 points) will be from a GROUP exam. Without using any outside resources during the group portion of the exam or between the individual and group portions of the exam, your group will answer the SAME exam questions. The group score will constitute 25% of your exam score.

Appeals: For either the in-class team learning assignments or the exams, students may not use the text, notes, or other resources during either the individual or group portions of assignment. However, once the assignment has been completed, students may use any resource they wish to appeal any question for which the group feels the answer is incorrect or the question is unclear. All appeals must be in writing, must fully explain why the group feels there is a problem with the question and must be agreed to by the entire group. If the group’s appeal is granted, the scores of all group members will be adjusted.

Absences: You MUST be present in class to receive points for the group portion of the team learning assignments. The only exceptions are medical appointments and
University sponsored events. In the case that you have a scheduled medical appointment that prevents you from attending lecture, please let me know in **advance** of lecture. Should you not be able to attend lecture due to a medical emergency, please let me know about the situation as soon as possible.

**Daily in-class assignments:** For almost every lecture, there will be a question worth a small amount of points to start lecture. Also, during lecture there will be questions for points. Students are encouraged to discuss these questions with other members of their team learning group. In addition, there will be a few times when groups will work on questions related to course material. These questions are designed to help students understand how to answer questions on the exams.

**Qwizdom responders.** You are required to bring your functioning Qwizdom responder to each class meeting. You **MUST** be present to receive credit for in-class assignments. The only exceptions are medical appointments and University sponsored events. In the case that you have a scheduled medical appointment or University sponsored event that prevents you from attending lecture, please let me know in **advance** of lecture. Should you not be able to attend lecture due to a medical emergency, please let me know about the situation as soon as possible. You are not permitted to use another student’s responder. Answering questions for another student not present in lecture is cheating and will not be tolerated. If you are seen using two responders, both will be confiscated and we will all sort it out later.

Answers to any type of Qwizdom question that are written on paper will **NOT** be accepted. There are no exceptions to this policy. I have a few responders that you can sign out should you forget your responder. I have extra batteries that you can sign out if your batteries go low. If you forget your responder and all my extra responders are signed out, you will not be able to answer the Qwizdom questions. Note: we will require students to give us their ID to get a responder or batteries. They will give us back the responder or batteries at the end of the class.

I will **NOT** check the results of a Qwizdom assignment for ANY student. When you take an assignment using Qwizdom, the Qwizdom responder shows you the answer you selected. Be sure you see the answer you intended to select. Since I have been using the Qwizdom system, I have checked answers at the request of students well over one hundred times. I have never found a problem with the Qwizdom system. Most of the time, a student mistakenly selected an incorrect answer or didn’t answer the question at all.

**All students must have a TAMU-CC e-mail account. Posting grades**

All students must have a TAMU-CC e-mail account (your islander account). I e-mail your grades to your islander e-mail account. Grades will **NOT** be posted anywhere! Please go to [http://www.tamucc.edu/ise.html](http://www.tamucc.edu/ise.html) to obtain a new islander account.

After an assignment or exam, I will e-mail your grades to your TAMU-CC e-mail account. Please check your grades! It is your responsibility to be sure that I have
correctly recorded your grades. From the time I e-mail grades for an assignment or exam, you have **five class days** to inform me there might be a problem with your grades. After five class days, I will assume that grades for that assignment or exam are correctly recorded.


**Class attendance**
My attendance policy is the same as the University's. Please read the University’s attendance policy in the catalog. I expect students to attend **every** scheduled class meeting **including labs.** Attendance is not used to determine grades. If you come to class often, you should do well in my course. In addition, there will be in-class assignments during most lectures, so coming to lecture on a regular basis should result in a higher grade.

**Academic honesty:** All students are expected to be familiar with TAMU-CC’s Academic Honesty Statement found in the catalog.

**Make up or late work.**
Exams: The Summer term goes by very quickly. If anything happens that causes you to miss an exam, notify me (e-mail is great for this purpose) immediately! You cannot get behind in this class during the summer, there is very little time for making up an exam, so we need to get a plan in place as soon as possible in the unlikely event that something happens that causes you to miss an exam.

In class daily assignments and in-class team learning assignments: These assignments **MUST** be taken in class! You are responsible for bringing your Qwizdom responder to class. You are responsible for making sure that the batteries are working. Bring spare batteries to class. The only reason a student would be permitted to make up an in-class assignment is because they had a medical-related conflict. If you have a previously scheduled medical appointment you must contact me BEFORE the lecture and ask to make up any assignment during class. I will require documentation in order for you to make up the in-class assignment.

**Pre-lab assignments:** All students are expected to come to lab ready to conduct the lab. To increase student readiness for labs, and therefore increase student learning, each student must complete a short pre-lab quiz on Blackboard before coming to lab. You can retake the quiz several times but there will be a waiting period between each attempt. You will not receive full credit on the quiz unless all questions are answered correctly. The pre-lab quiz will ask lab-related questions that can be answered by reading the appropriate part of the text or lab manual. The first lab, scientific inquiry, and the DNA
structure, replication and transcription and translation lab will not have a pre-lab quiz. All other labs will have pre-lab assignments.

Your overall lab score in points will be compiled as follows:

<table>
<thead>
<tr>
<th>Day</th>
<th>lab</th>
<th>points</th>
<th>% of course grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 June</td>
<td>Scientific inquiry</td>
<td>15</td>
<td>0.06</td>
</tr>
<tr>
<td>2 June</td>
<td>microscopes</td>
<td>15</td>
<td>0.06</td>
</tr>
<tr>
<td>6 June</td>
<td>Lab skills</td>
<td>15</td>
<td>0.06</td>
</tr>
<tr>
<td>8 June</td>
<td>Osmosis</td>
<td>15</td>
<td>0.06</td>
</tr>
<tr>
<td>9 June</td>
<td>Enzymes</td>
<td>15</td>
<td>0.06</td>
</tr>
<tr>
<td>13 June</td>
<td>yeast 1</td>
<td>15</td>
<td>0.06</td>
</tr>
<tr>
<td>15 June</td>
<td>yeast 2</td>
<td>15</td>
<td>0.06</td>
</tr>
<tr>
<td>16 June</td>
<td>photosynthesis</td>
<td>15</td>
<td>0.06</td>
</tr>
<tr>
<td>20 June</td>
<td>Mitosis/meiosis</td>
<td>15</td>
<td>0.06</td>
</tr>
<tr>
<td>22 June</td>
<td>DNA structure, replication, transcription, translation</td>
<td>15</td>
<td>0.06</td>
</tr>
<tr>
<td>23 June</td>
<td>Genetics</td>
<td>15</td>
<td>0.06</td>
</tr>
<tr>
<td>27 June</td>
<td>PCR I</td>
<td>15</td>
<td>0.06</td>
</tr>
<tr>
<td>29 June</td>
<td>PCR II</td>
<td>15</td>
<td>0.06</td>
</tr>
<tr>
<td>30 June</td>
<td>Exam</td>
<td>55</td>
<td>0.22</td>
</tr>
<tr>
<td></td>
<td>total</td>
<td></td>
<td>250</td>
</tr>
</tbody>
</table>

The complete lab syllabus is in the lab manual and is not repeated here.

**Students with Disabilities and Veterans**
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 believe you have a disability requiring an accommodation, please call or visit Disability Services at (361) 825-5816 in Driftwood 101.

If you are a returning veteran and are experiencing cognitive and/or physical access issues in the classroom or on campus, please contact the Disability Services office for assistance at (361) 825-5816.

**Grade Appeal Process.** As stated in University Rule 13.02.99.C2, Student Grade Appeals, a student who believes that he or she has not been held to appropriate academic
standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate 
grading, may appeal the final grade given in the course. The burden of proof is upon the 
student to demonstrate the appropriateness of the appeal. A student with a complaint 
about a grade is encouraged to first discuss the matter with the instructor. For complete 
details, including the responsibilities of the parties involved in the process and the 
number of days allowed for completing the steps in the process, see University Rule 
13.02.99.C2, Student Grade Appeals, and University Procedure 13.02.99.C2.01, Student 
Grade Appeal Procedures. These documents are accessible through the University Rules 
Web site at http://www.tamucc.edu/provost/university_rules/index.html. For assistance 
and/or guidance in the grade appeal process, students may contact the Office of Student 
Affairs.

**Evaluation of students**

200 points first exam
200 points final exam
90 points from daily in-class assignments
5 points for mid-term group member evaluation
5 points for final group member evaluation
250 points in-class team learning assignments
250 points from lab

1000 total points in the course.

A= 89.5% or more of 1000 points
B= 79.5% to 89.4% of 1000 points
C= 69.5% to 79.4% of 1000 points
D= 59.5% to 69.4% of 1000 points

**THERE IS NO EXTRA CREDIT!**