SECTION TAUGHT: BIOL 1406.C06  T/Th 1:00 – 2:15 PM, B315

COURSE DESCRIPTION
For science majors. Current knowledge in the fundamentals of biology from the molecular to cellular level of organization. General topics covered include basic biochemistry, metabolism, energetics, cell structure, DNA, genetics, viruses, and bacteria. Lab required. Prerequisite: Pass reading and math requirements of TSI; high school chemistry is recommended. 4 credit hours.

CREDIT HOURS: 4 (LECTURE HOURS: 3 LAB HOURS: 3)

ASSESSMENTS
Prior to enrolling in this course, the student must demonstrate eligibility to enroll in the following:
ENGL-1301, MATH-0310, and College Level Reading

CO-REQUISITE COURSE: BIOL 1406 laboratory

COURSE DELIVERY METHOD: Lecture

TEXTBOOK
Biology by Campbell & Reece, 8th Edition (required) Note: A copy of the textbook is on reserve in the Collin libraries.

SUPPLIES: none

MEASURABLE STUDENT LEARNING OUTCOMES
Upon completion of this course the students should be able to do the following:
1. Describe the metabolic processes that occur within the cells
2. Compare eukaryotic and prokaryotic cell structure
3. Describe the process of cell replication
4. Explain how diversity is genetically based
5. Discuss natural selection.
6. Demonstrate the collection, analysis, and reporting of data using the scientific method

COURSE REQUIREMENTS
Exams: Six exams will be given during the semester, including a non-cumulative final exam. All exams will be given during class, and will contain a mix of multiple choice, matching, true/false, fill in the blank, and/or short answer questions. Students will need to bring a Scantron to class on test days. Study guides will be posted on Blackboard prior to each exam. Graded exams will be returned in class for a brief review. Thereafter, exams will kept on file in the instructor’s office and will be available for review during scheduled office hours.

Quizzes: Four to five quizzes will be giving during the semester. Quizzes will be announced ahead of time. Students may use the cumulative average of their quizzes to replace their lowest exam grade. Note: Quiz grades cannot be used to replace a grade of “0” on an exam.

Semester project: A project on “The Cell” will be assigned during the fifth week of the semester, and students will be able to choose from a list of project options that will be provided.

Homework and Class Assignments: Homework and class assignments will be comprised of both group and individual exercises including case studies, crossword puzzles, anticipation guides, concept circles, and other activities.

GRADING SCALE
A: 90-100  B: 80-89  C: 70-79  D: 60-69  F: 59 and below
Grades for the lecture portion of the course will be calculated as follows:

Lecture Exams (6)  80%
Semester Project  10%
Homework/ Class assignments  10%

OVERALL GRADE
The lecture grade with be integrated with your laboratory grade to determine the final grade for the course (75% lecture and 25% lab).

TENTATIVE TEST SCHEDULE

<table>
<thead>
<tr>
<th>Exam</th>
<th>Date</th>
<th>Chapters Covered</th>
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</thead>
<tbody>
<tr>
<td>Exam 1</td>
<td>Tuesday, February 9</td>
<td>Ch. 1-4</td>
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<tr>
<td>Exam 2</td>
<td>Thursday, March 4</td>
<td>Ch. 5-7</td>
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<tr>
<td>Exam 3</td>
<td>Tuesday, March 30</td>
<td>Ch. 8-10</td>
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<tr>
<td>Exam 4</td>
<td>Tuesday, April 13</td>
<td>Ch. 11-13</td>
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<tr>
<td>Exam 5</td>
<td>Tuesday, March 27</td>
<td>Ch. 16, 17, 20</td>
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<td>Exam 6</td>
<td>Tuesday, May 11</td>
<td>Ch. 14, 15</td>
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METHOD OF PRESENTATION:
Lectures will be structured around information presented in the required text, and may be supplemented with information from outside sources. Lecture outlines will be made available to students on Blackboard. Lectures will be augmented with class activities, animations, outside speakers, group discussions, videos, and other alternate learning methods, with an emphasis on critical thinking and applied knowledge. Students may audio record classroom lectures with my permission, but video recording is prohibited.

ATTENDANCE is mandatory in this course. ABSENCES will be excused only if acceptable documentation of an instructor-approved excuse is provided. It is your responsibility to provide such documentation upon your return to class, and to confer with the professor regarding make up assignments. Students will not be allowed to make up assignments due to unexcused absences. If you do not drop in accordance with the CCCCDC Academic Calendar, a grade of “F” will be assigned. Religious Holidays: please refer to the Collin Student Handbook. The last day to withdraw is 3/12/10.

STUDENT CONDUCT
The college expects students to conduct themselves in class in such a way as to not interfere with or disrupt the educational process. Students are to speak and act in a respectful manner toward their fellow students and the professor. Those who participate in inappropriate behavior such as, excessive talking, cell phone use (including texting), verbal altercations, or blatantly disregarding instructor’s directions will be asked to leave the class, and will be referred to the Dean of Students office for disciplinary action.

CLASSROOM ETIQUETTE
*Cell phones and other telecommunication devices should be turned off or silenced during class.*
  - NO texting, surfing, IMing, tweeting, e-mailing, etc. during class!
*Students should not talk to each other while the instructor or another student is speaking.*
  - Once an instructor addresses the class, whether to teach or to respond to a question, students should cease all chatter. Individual conversations between students during class are rude and disruptive, and will not be tolerated.
*Students should make every effort to be ON TIME, and remain in class for the entire class period.*
  - Students who are late should take a seat close to the door to avoid disrupting the entire class.

ACADEMIC ETHICS
The College District 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 as one’s own work material that is not one’s own. Scholastic dishonesty may involve, but is not limited to, one (1) or more of the following acts: cheating, plagiarism, collusion, use of annotated texts or teacher’s editions, and/or falsifying academic records.
**Plagiarism** is 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** is the willful giving or receiving of information in an unauthorized manner during an examination, illicitly obtaining 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** is intentionally aiding or attempting to aid another in an act of scholastic dishonesty, including but not limited to, providing a paper or project to another student; providing an inappropriate level of assistance; communicating answers to a classmate during an examination; removing tests or answer sheets from a test site, and allowing a classmate to copy answers. In accordance with college guidelines, students suspected of academic dishonesty will be referred to the Dean of Students for an investigation. Students found guilty of scholastic dishonesty will receive an authorized disciplinary penalty from the Dean of Students Office as well as an academic penalty in the course. For more information, contact the Dean of Students for the student disciplinary process and procedures or consult the CCCCD Student Handbook.

**Lateral Transfers**
Lateral transfers will not be granted after the 4th week of class or after the first lecture exam, which ever comes first. Exceptions to this are for documented changes in work schedule and family emergencies. If a student does transfer to another section, all previous grades will accompany the student. However, the new instructor can require the student to retake any exam or quiz. For questions concerning lateral transfers, contact the Biology Department Chair.

**College Repeat Policy**
You may repeat this course only once after receiving a grade, including W.

**Withdrawal Policy -- Texas Education Code 51.907 Course Drop Limit Provisions**
Students who enroll as an entering freshman or a first-time college student in undergraduate courses at any Texas public community college, technical institute, health sciences institution, or any public university offering undergraduate courses must comply with the legislation of TEC51.907. TEC51.907 states that students who enroll for the first time during the fall 2007 semester or any subsequent semester are subject to the course drop limit of six course drops. This includes any course a transfer student has dropped at another institution. Collin College did not begin to count dropped courses until the fall 2008 semester. For more information go to http://www.ccccd.edu/aro/withdrawal.htm.

**American Disabilities Act Statement**
It is the policy of Collin County Community College to provide reasonable and appropriate accommodations for individuals with documented disabilities. This college will adhere to all applicable Federal and State laws, regulations, and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to contact the ACCESS office (SCC G200, 972-881-5898, V/TDD 972-881-5950) in a timely manner if he/she desires to arrange for appropriate accommodations.

**FERPA Compliance**
Student performance cannot be discussed with anyone other than the student, unless written permission is provided by the student. Student information cannot be given to students over the phone or via non-secure e-mail addresses. Students may use their cougarmail e-mail address, provided by the college to all students, to communicate with the professor about grades and other sensitive information.

**Changes to Syllabus**
The instructor reserves the right to alter the syllabus as needed at any time during the semester. Changes to the syllabus will be provided to the students in writing.
DR. CAIN’S TIPS FOR SUCCESS

*Ask if you have any questions!

*Own the material, don’t just rent it.

*Know the difference between memorizing and learning, and work on learning the material and being able to apply what you have learned.

*Utilize study groups—students consistently demonstrate better learning outcomes when they learn in groups.

*Work on the study guides as we cover each chapter – don’t wait until right before the exam to start studying.

*Make use of supplemental study materials posted on the course website, such as problem sets, crossword puzzles, interactive quiz games, etc. They will help you learn the material!

*Use a variety of learning strategies – you will learn the material better if you approach it several different ways.

*Take advantage of the services that Collin College offers – tutoring, advising, counseling, librarians, writing center, etc.

FREQUENTLY ASKED QUESTIONS:

What should we call you?
“Doctor Cain” or “Professor Cain”.

What kinds of course materials are posted on Blackboard?
You’ll find lots of helpful study tools on Blackboard – Powerpoint slides, study guides, homework assignments, animation links, review games, crossword puzzles, etc. I also post announcements and reminders on Blackboard, so plan to check it daily. All grades will be posted on Blackboard as well.

If I memorize the words on the Powerpoint slides, is that enough for the tests?
Absolutely not! The Powerpoint slides are an outline only. You will still need to take notes during class as we explore the material in more depth.

Can I e-mail you if I have questions while I’m studying?
Please do! I check e-mail regularly during the workday, and periodically on evenings and weekends (especially right before a test). I don’t check my Blackboard mail as often, so if you need a quick response, use dcain@collin.edu.

I do all of the study guides before each test, and I’m still not doing very well. What am I doing wrong?
Focus more on ACTIVE learning. If you’re just writing out the answers to the study guides and then reading over them while you’re studying, then it’s not enough. You need to be able to answer those study guide questions without looking at your notes!

Is tutoring available for Biology 1406 Lecture?
Yes, group and on-line tutoring are available, and it’s free! Simply fill out a Tutor Request Form (available in D117, or on-line under “Student Resources”) and someone from tutoring services will contact you, usually via e-mail.

I’m having trouble in lab. Any suggestions?
Read the lab ahead of time, so that you know what you’ll be doing in lab each day. For the lab practical exams, make use of the lab review website – there’s a link to it posted on our Blackboard page.

What should we do in the event of a class cancellation?
If the College is closed due to inclement weather, students will be notified via CougarAlert, and an announcement will be posted on the Collin College home page. If I have to cancel class due to emergency or illness, I will post an announcement on Blackboard, and signs will be posted on the classroom door. In ANY event of a class cancellation, be sure to check Blackboard for further instructions!
### Tentative Biology Lecture Schedule

**Week** | **Topics** | ** Chapters Covered**
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1 | Course Introduction and Overview  
Themes of Life & The Scientific Process | 1
2 | Chemistry of Life | 2
3 | Water & the Environment  
Carbon and the Molecular Diversity of Life | 3  
4 | **T: Exam I (February 9)**  
Macromolecules | **Ch 1-4**  
5 | The Cell: Eukaryotes, Prokaryotes & Viruses | 6 (& parts of 19, 27)
6 | The Cell: Eukaryotes, Prokaryotes & Viruses  
Membrane Structure & Function | 6 (& parts of 19, 27)
7 | Membrane Structure & Function  
**R: Exam II (March 4)** | **Ch 5-7**
8 | **T: Cell Project Due (March 9)**  
Metabolism  
Cellular Respiration | 8  
9 | Cellular Respiration  
Photosynthesis | 9  
10 | **T: Exam III (March 30)**  
Cell Communication | 11
11 | Mitosis  
Meiosis | 12  
12 | **T: Exam IV (April 13)**  
Molecular Basis of Inheritance | **Ch 11-13**  
13 | From Gene to Protein  
Genetic Engineering | 17  
14 | **T: Exam V (April 27)**  
Mendelian Genetics | **Ch 16, 17, 20**  
15 | Chromosomal Basis of Inheritance | 15
16 | **T: Exam VI (May 11)** | **Ch 14, 15**

**Last day to withdraw, March 12**