BIOL 1408: Biology for Non-Science Majors I

Summer I 2012

Section: 7111 - Lecture: MTWRF 9:45 am-11:45 am Room C316
Lab: MTWRF 12:00 pm-02:00 pm Lab C316

Instructor: Marzi Ranjbaran
North Lake College, Mathematics/Science Division

Office: C303e
Office Hours: by appointment
Email: mranjbaran@dcccd.edu

Course Description
BIOL 1408 (4cr) is a Texas Common Course Number. Prerequisites: One of the following must be met: (1) Developmental Reading 0093 AND Developmental Writing 0093; (2) English as a Second Language (ESOL) 0044 AND 0054; or (3) have met Texas Success Initiative (TSI) Reading and Writing standards AND DCCCD Writing score prerequisite requirement. Presentation of biological concepts for the non-science major. Emphasis will be on scientists and their contributions to the science field, scientific problem solving, unity of life including cells and genetic information, energy pathways important to life, and current issues in biology.

Required Texts
- Biology - Concepts and Applications Biology 1408, eight editions by Cecie Starr.
- Laboratory Manual Biological Science 1408, North Lake College
- ISBN: 97809777335077

Additional Requirements
- A current, working email address that must be accessed at least once per day
- Access to eCampus at least once per day
- Nine (9) long scantron sheets (6 for lecture exams and 3 for lab practical) and 12 short scantron sheets for lab quizzes.

Introduction
The world today is dominated by science and technology. Students majoring in fields other than science will need a science background to function competently in most technical jobs today. For example, students majoring in business may very likely find themselves in accounting, marketing, or sales for a company which produces high-tech products in the area of defense, electronics, food production, and genetic engineering. Regardless of your vocational endeavor, your life is affected by science.
Responsible citizenship today requires intelligent informed decisions related to topics such as radiation, toxic waste, safe housing, transportation, nutrition, and health. These decisions require an adequate background in science. The instructors will present the concepts of biology in a context that will help you competently read daily newspapers and periodicals such as *Time, Newsweek, Discovery*, and *National Geographic*.

The method of teaching employed in this class will approach the learning process from the point of view that learning is something done *by* you, not something done *to* you. In this class emphasis will be placed on your learning rather than on the mechanics of our teaching. The instructor will facilitate the investigative learning process by assigned readings, chats, discussion boards, reviews, practice quizzes, tests, etc.

**Intellectual Competencies**

The objective of the study of a natural sciences component of a core curriculum is to enable the student to understand, construct, and evaluate relationships in the natural sciences, and to enable the student to understand the basis for building and testing theories.

Biology 1408 requires the following identified competencies:

1. Reading – the ability to analyze and interpret a variety of printed materials (books, documents, and articles) above the 12th grade level
2. Writing – the ability to produce clear, correct and coherent prose adapted to purpose, occasion and audience (above the 12th grade level)
3. Speaking – ability to communicate orally in clear, coherent, and persuasive language appropriate to purpose, occasion, and audience above 12th grade
4. Listening – analyze and interpret various forms of spoken communication, possess sufficient literacy skills of writing, reading above 12th grade
5. Critical thinking – think and analyze at a critical level
6. Computer literacy – understand our technological society, use computer-based technology in communication

Biology 1408 includes the following identified, exemplary educational objectives:

1. To understand and apply method and appropriate technology to the study of the natural sciences.
2. To recognize scientific and quantitative methods and the differences between these approaches and the other methods of inquiry and to communicate findings, analyses, and interpretation both orally and in writing.
3. To identify and recognize the differences among competing scientific theories
4. To demonstrate knowledge of the major issues and problems facing modern science, including issues that touch upon ethics, values, and public policies.
5. To demonstrate knowledge of the interdependence of science and technology and their influence on, and contribution to, modern culture.

**Procedure**

Biological Science 1408 consists of four weeks of text assignments and labs.
Text Assignments
The text assignments consist of assigned reading in *Biology-Concepts and Applications*. You will have 6 exams over the content of the reading assignments.

Laboratory
The laboratory activities will provide you with the opportunity to participate in the scientific process. Read each lab exercise in the lab manual carefully both before the lab, and as you work through the corresponding lab material. Refer to the Laboratory syllabus for details.

Deadlines for exams are final. Any late exams will result in half credit.

Support Services
If you are a student with a disability and/or special needs who requires ADA accommodations, please contact the office.

Main Office
MTWR 8:00 a.m. - 8:00 p.m.
F 8:00 a.m. - 4:30 p.m.
Sa & Su Closed

Central Campus, P-330
972-273-3500

Religious Observances
Absences for observance of a religious holy day are excused. A student whose absence is excused to observe a religious holy day is allowed to take a make-up examination or complete an assignment within a reasonable time after the absence.

Academic Dishonesty
Scholastic dishonesty is a violation of the Code of Student Conduct. Scholastic dishonesty includes, but is not limited to, cheating on a test, plagiarism, and collusion. As a college student, you are considered a responsible adult. Your enrollment indicates acceptance of the DCCCD Code of Student Conduct published in the DCCCD Catalog. [https://www1.dcccd.edu/cat0506/ss/code.cfm](https://www1.dcccd.edu/cat0506/ss/code.cfm)

Withdrawal Policy
If you are unable to complete this course, it is your responsibility to withdraw formally. If you drop a class or withdraw from the college before the official drop/withdraw deadline, you will receive a “W” (Withdrawal) in each class dropped. It is the student's responsibility to
withdraw from a course in the event that they wish to drop it. Failure to complete a course without an official drop will result in an "F" grade.

Repeating the Course
Effective fall semester 2005, the DCCCD will charge additional tuition to students registering the third or subsequent time for a course. All third and subsequent attempts of the majority of credit and Continuing Education/Workforce Training courses will result in additional tuition to be charged. Developmental Studies and some other courses will not be charged a higher tuition rate. Third attempts include courses taken at any of the DCCCD Colleges since the fall of 2002.

Financial Aid
If you are receiving Financial Aid grants or loans, you MUST be in attendance in all classes. Do not drop or stop attending any class without consulting the Financial Aid Office. Changes in your enrollment level and failing grades may require that you repay financial aid funds.

Stop Before You Drop
For students who enrolled in college level courses for the first time in the fall of 2007, Texas Education Code 51.907 limits the number of courses a student may drop. You may drop no more than 6 courses during your entire undergraduate career unless the drop qualifies as an exception. Your campus counseling/advising center will give you more information on the allowable exceptions. Remember that once you have accumulated 6 non-exempt drops, you cannot drop any other courses with a “W.” Therefore, please exercise caution when dropping courses in any Texas public institution of higher learning, including all seven of the Dallas County Community Colleges. For more information, you may access: https://www1.dcccd.edu/coursedrops

HOW YOUR FINAL GRADE IS DETERMINED (lecture and lab)
The course grade is determined on the basis of the following point system:

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<tr>
<th>Points</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>300 pts</td>
<td>A = 600 - 650</td>
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<tr>
<td>30</td>
<td>B = 550 - 599</td>
</tr>
<tr>
<td>120</td>
<td>C = 500 - 549</td>
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<tr>
<td>200</td>
<td>D = 450 - 499</td>
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<tr>
<td>Total</td>
<td>F = 0 - 449</td>
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<table>
<thead>
<tr>
<th>Points</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>650</td>
<td>A = 90 - 100</td>
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<tr>
<td>550</td>
<td>B = 80 - 89</td>
</tr>
<tr>
<td>500</td>
<td>C = 70 - 79</td>
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<tr>
<td>450</td>
<td>D = 60 - 69</td>
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<tr>
<td>0</td>
<td>F = 0 - 59</td>
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You may accumulate points as follows:

1. **Lecture** - 6 lecture exams worth 50 points each. A combination of multiple questions (40 pts) and one two short answer questions (5/each) will be given over the textbook and lab book reading assignments.

2. **Laboratory** - Twelve labs will coordinate with the text material. There are 12 lab quizzes and 10 questions on each quiz based on the material covered during the previous session. Each one will be taken at the first 10 minutes of the next lab session. Each quiz is worth 10 points.

3. **Laboratory Practical** - Three lab practical worth total of 200 points.

Please refer to lab syllabus for more details.

4. **Genetics problem set** - Once we reach Chapter 10 in lecture, a problem set will be handed out covering basic genetic concepts. This assignment is worth 30 points.

**Late work**
Late work will not be excepted unless you provide a documented written excuse.

**Missed labs**
All students are expected to attend every lab session. If you miss a lab, you may make up some of the points in the following way:
- Read through the lab on your own, answer the Summary Questions at the end of the lab, and take the quiz, within one day of the scheduled lab for half credit.

**Extra credit (Total 30 points)**
There are 30 extra points available in this course:
Perfect attendance to all lecture sessions, means no absence thought out the semester: 10 points
Note: One absence penalty is 2 points; two or more will not receive any points.
Lab participation, Completed Lab Exercises, and Completed Summery questions for all the lab sessions: 20 points
Note: Penalty for ach missing summery questions is 3 points.

**Attendance Policy - ****IMPORTANT****
Attendance and punctuality are important for fully understanding the material, preventing class disruptions, and contributing to class discussions.

**Cell Phone Policy**
Cell phones are NOT to be in use during class or lab time. Frequent disruptions of class due to cell phone usage (incoming calls, outgoing calls, texts, etc.) can result in the lowering of the final grade. In addition, cell phones are not allowed in a student's possession during any in-class exam or lab practical. Any phone or communication device (as well as other belongings) are to be kept at the front of the classroom during such exams. Any exceptions must be agreed upon by the instructor.

The instructor reserves the right to amend this syllabus as necessary.