SCIENCE DIVISION

Fall 2011

COURSE CONTENT, INSTRUCTIONAL SEQUENCE, AND MASTER SYLLABUS

FOR

PRINCIPLES OF BIOLOGY

BIOL 1408
COURSE DESCRIPTION

BIOL 1408  General Biology I (Lecture + Lab, for non-majors)

Fundamental principles of living organisms including physical and chemical properties of life, organization, function, evolutionary adaptation, and classification. Concepts of reproduction, genetics, ecology, and the scientific method are included.

Approval Number ....................................................... 26.0101.51 03
CIP Area ................................................................. Life Sciences
Maximum SCH per student ................................. 8
Maximum SCH per course ................................. 4
Maximum contact hours per course ......................... 96

* AS PER LOWER-DIVISION ACADEMIC COURSE GUIDE MANUAL
TEXAS HIGHER EDUCATION COORDINATING BOARD (Revised 2002)

All full-time, part-time, and dual-credit instructors at all sites are required to follow the course content, and Division policies as set forth in this document. This applies to all formats in which BIOL 1408 is taught, including face to face and hybrid applications.
Instructor: Dr. Richard E. Cowart

Course Meeting Times: T / Th 12:30 pm – 1:50 pm (Lecture)
T / Th 2:00 pm – 3:20 pm (Lab)

Office Hours: Monday & Wednesday 12:30 – 1:50 pm;
Tuesday & Thursday 11:00 – 12:20 pm

Contact Information: Phone: 664-2981, Ext. 3049;
Email: recowart@coastalbend.edu
Office: Alice Campus 213


Textbook Website: CBC Blackboard and McGraw Hill’s Campus Connect

LECTURE CONTENT

UNIT 1
Review of syllabus and course policies / Introduction to the characteristics and organization of life / The Scientific Method / Basic chemistry / Introduction to organic molecules

UNIT 2
The cellular level of organization / Prokaryotic and eukaryotic cells / Cell structure and function / Cell membrane structure and function

UNIT 3
Energy and metabolism / Metabolic pathways and enzymes / Photosynthesis / Cellular respiration

UNIT 4
The cell cycle / Mitosis and cytokinesis / Meiosis / Oogenesis and Spermatogenesis
UNIT 5
Gregor Mendel and his Laws of Inheritance / Mendelian genetics / Sex-linked traits / DNA structure / Protein synthesis: Transcription and Translation

UNIT 6
Darwinian evolution / Natural selection / Speciation / Systematics and Phylogeny

UNIT 7
Behavioral ecology / Population ecology / Community and ecosystem ecology / Conservation of biodiversity / Current conservation issues

LECTURE CONTENT AND INSTRUCTIONAL SEQUENCE

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WEEK 16  FINAL EXAM

LABORATORY CONTENT AND INSTRUCTIONAL SEQUENCE

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INSTRUCTIONAL MATERIALS

To ensure continuity across all sites, all instructors teaching this course are required to use the text and laboratory manual approved for this course by the Science Division of Coastal Bend College. This applies to all full-time, part-time, and dual-credit instructors. All hybrid courses are also required to use these materials and follow the approved course content.

COURSE DESCRIPTION

This course presents the fundamental principles of living organisms including physical and chemical properties of life, organization, function, evolutionary adaptation, and classification. Concepts of reproduction, genetics, ecology, and the scientific method are included.

COURSE OBJECTIVES

This course is designed to achieve the following objectives:

Objective #1: Provide the student with a solid foundation in introductory, freshman-level, college biology.

Objective #2: Prepare the student for sophomore level biology courses.

Objective #3: Provide the student with an awareness of current biological issues and trends, and the impacts they may have.

GRADING

The cumulative grade in this course will be a compilation of the lecture grade and the laboratory grade. The lecture grade will represent 75% of the overall grade. The laboratory grade will represent 25% of the overall grade.

LECTURE GRADE

The lecture grade will be a compilation of exams, assignments, participation, and attendance.
LABORATORY GRADE

Two exams will be given in the laboratory section of the course, a mid-term lab practical and a final lab practical. The laboratory grade will consist of the laboratory worksheet / assignment average (33%), the laboratory mid-term exam grade (33%), and the laboratory final exam grade (33%).

MISSED EXAMS

The student will be allowed to take one make-up exam, or at the instructor’s discretion an exam grade may be dropped.

ATTENDANCE POLICY

Class attendance is mandatory and roll will be taken at the beginning of each class meeting. If a student misses 4 classes, they may be dropped from the course and a grade of "Q" given. A student is considered absent if they are not present when roll is taken. If you know in advance that you will miss a class, please contact the instructor. The laboratory meets twice a week as scheduled. You are expected to be available for the complete lab period. Anyone leaving lab early will receive a zero for that lab. Laboratory absences do count toward the total absences.

LABORATORY ATTIRE

Laboratory safety is of paramount importance and safety rules and regulations are strictly enforced. All students are required to wear closed toed shoes and long pants when in the laboratory. Sandals, flip flops, crocs, and shorts are not acceptable. Any student that does not follow safety rules and regulations, or is not in proper laboratory attire, may be asked to leave the laboratory.

STUDENT CONDUCT & DISRUPTIVE BEHAVIOR

As stated in the Student Handbook, “All students shall obey the law, show respect for properly constituted authority, and observe correct standards of conduct”. Examples of prohibited acts on college property are:

   Scholastic dishonesty ("cheating") and Plagarism
Interference with teaching responsibilities through disorderly conduct or disruptive behavior

Engaging in any obscene, profane, reckless, destructive, or unlawful course of action

Any student that fails to observe the correct standards of conduct outlined in the student handbook may be told to leave the class and will receive an absence for that day. Any student with chronic misbehavior will be dropped from the class.

Excessive talking between students during the course of the lecture is considered disruptive behavior and the students involved can be instructed to leave the class. Chronic excessive talking can result in the students involved being dropped from the class.

Any student caught cheating on an exam will receive an immediate zero on that exam. Any student caught assisting another student with his or her exam will also receive an immediate zero on that exam.

NON-APPROVED ELECTRONIC DEVICES

Non-approved electronic devices are any and all electronic devices that the instructor has not approved for use in the classroom. This includes, but is not limited to, cell phones, iPods, laptop computers, and recorders. If you have any questions as to the acceptability of an electronic device in the classroom, ask the instructor. Some instructors do allow the use of computers and recorders.

All non-approved electronic devices must be turned off while the student is in class. Cell phones may be set to vibrate if the student is expecting an important call and the instructor has approved it before class begins. Students using non-approved electronic devices may be asked to leave the classroom and receive an absence for the class.

The use of any non-approved electronic device during an exam will be considered cheating, and the student will receive a zero on that exam.

GRIEVANCE PROCEDURE

Our primary concern is that all students are provided with a productive learning environment in which there is mutual respect. We believe the most productive learning environment is one in which the students feel comfortable enough to freely ask
questions and exchange ideas. If you are ever harassed or insulted by another student, bring it to the instructor's attention immediately.

If at any time during the semester you have a complaint or "point of concern", notify the instructor immediately. If you do not feel that the situation can be resolved after bringing it to the instructors attention, you are encouraged to contact the Chairperson of the Science Division at Coastal Bend College, or the Academic Director.