# **BIOLOGY 3: Natural History Approach to Biology**

**Summer 2007** 

Instructor: Mr. Bryon P. Spicci Office Hours: By Appointment Only

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Class Meetings: M, Tu, Th and F from 9:00 am-12:25 pm from 6/25/07 – 8/3/07. **Note that** 

class doesn't meet on Wednesdays.

#### I. COURSE DESCRIPTION

**A.** Title: Biology 3 – Natural History Approach to Biology

**B.** Prerequisite: None - Just the desire to learn & the ability to drive yourself to field trips.

**C. Summary:** Biology 3 is a Natural History approach to Biology. It is an integrated approach using ecology to establish the interrelationships between plants, animals, man and the planet earth. Emphasis is placed on local flora & fauna, biotic communities and field trips. This class is recommended for the non-science and pre-education majors. Biology 3 satisfies the general education science requirement.

## II. COURSE OBJECTIVES

- **A.** Students will read, analyze, evaluate, and discuss Scientific Method, Microscopy, The cell, and Levels of Organization.
- **B.** Students will learn the periodic table of the elements and chemistry of the carbon atom and chemical structure of living organisms.
- C. Students will read appropriate scientific literature on classification.
- **D.** Students will learn the cell's structure, function, and organization of living organisms.
- **E.** Students will observe and document the structure and function of the human body by examining the organ systems: reproduction, respiration, circulation, excretion, and digestion.
- **F.** Students will review classical and molecular genetics and learn the process of replication, transcription, and translation.
- **G.** Students will perform experiments, observe, and record data.
- **H.** Students will learn plant structure, physiology, and interaction including photosynthesis and aerobic respiration.
- **I.** Students will study evolution.
- **J.** Students will observe chemical and energy relationships.

## III. REQUIRED MATERIALS:

- 1. Text: Tobin, A., Asking about Life, 3<sup>rd</sup> edition (2000) Brooks/Cole Publishing.
- 2. Text: <u>Sierra Nevada Natural History</u>, revised Ed. Storer, T., Usinger, R., & Lukas, D. Univ. of California Press. 2004.
- 3. Scantron form 886 (X6), Scantron form 815-E
- 4. E-mail address. This can be obtained free through the school
- 5. Biology Drawing Paper, one 4H and one 2H pencil, for lab plates
- 6. Camera for field trips

## IV. OPTIONAL, BUT RECOMMENDED:

1. Colored pencils (hard graphite) (no flow pens or crayons)

2. Binoculars – for field trips

# V. NO FOOD, BEVERAGE, CELLULAR PHONES, DISRUPTIONS OR PROFANITY AT ANY TIME!!!

Hint!! Be sure to always put your name, code & lab day on all papers to insure you will not get 5 points deducted! Thanks!!

#### VI. ATTENDANCE:

You are expected to be on time for each laboratory and lecture session. Tardiness may be construed as an absence from the class. It is the student's responsibility to sign in when late and then to see the instructor after class to be sure that an absence has been changed to a tardy! Be aware that 3 tardies = 1 absence. This is very important because **if you miss more hours than 5 hours of class or lab, you will be dropped** unless your instructor has been informed of the extenuating circumstances causing your absences.

## VII. TESTS AND EVALUATIONS:

## A. Grading

Description	Points Possible
Syllabus Tour	15
Textbook Tour	15
Lab Exercises (approx. 14)	140
8 Lab Plates (drawings) (10 pts. each)	80
10 Lecture Quizzes (10 @ 10 pts. each)	100
Unannounced Pop Quizzes (10 @ 10 pts each)	100
5 Exams (100 pts. each)	500
Performance Art Projects (50 pts. Each)	100
Discussion Board	50
Power Point Presentation Project	100
Approximate Total Points =	1300

B. In *most* circumstances the curve for the class is taken from the top grade in the class as long as the top grade is 90% or more from the points possible.

(From the top grade) 
$$90\% = A$$
  $80\% = B$   $65\% = C$   $55\% = D$   $54\%$  and below = F

At any point you can check your grades on webgrade via our Blackboard site:

<a href="http://www.blackboard.reedleycollege.edu">http://www.blackboard.reedleycollege.edu</a> go to the external links section and click on 'webgrade' to view your grades. You are encouraged to check this site regularly and keep track of your own grades! Your Blackboard username and password is your 7 digit student ID number. Your webgrade password can be obtained from your teacher. Additionally, all handouts and class notes for our class will be available on this site.

C. *Exams* will include multiple choice questions, true/false, matching, fill in the blank and usually 3-5 short essay questions. Many times these essays will be the main objectives of each chapter. All exams will be closed book and no notes.

- D. Lab Exercises Grades will come from your lab work itself. These are to have the answers to laboratory questions on handouts or from your lab guide as well as any problems to work or tables to fill in. Be sure these are neatly done and in the same order as the handouts. Forgotten lab work means no score as you are responsible for your work. **Policy for missed labs:** If a lab is missed you will not be allowed to make it up. Attending the lab is mandatory. No points will be given for lab work if you were not present during the lab meeting.
  - E. Laboratory/Lecture Quizzes will consist of questions concerning the previous labs/lectures and/or the current day's lab/lecture. These quizzes are open note. Only your own notes can be used, no handouts or books. Stay caught up and these will be welcome bonus points! Quizzes missed due to tardies may NOT be made up. Quizzes may also be given at the end of a laboratory or lecture.
  - F. Lab Plates (drawings) will be due, without notice, at the beginning of the next lab. Approximately 8 plates will be collected throughout the semester, which will roughly total one exam. Extra time and neatness as well as accuracy are very important to a successful laboratory grade. See the LAB DRAWING HAND OUT for more details on how the lab drawings will be graded. Drawings that are not on the required Biology drawing paper will not be graded. Keep all graded and ungraded lab plates in a lab notebook. Late lab plates will not be graded.
    - H. There will be three laboratory assignments requiring you to create with the knowledge you have gathered from the class. There will be two performance art projects which will be presented to the class during a laboratory session. The PowerPoint presentation project will require you to travel into the mountains to conduct independent research. You will be responsible for providing your own transportation. More will follow on this later.
    - I. *Discussion Board*: There will be questions based on assigned readings from the two texts used in this class. On blackboard these questions will be posted on the class discussion board. You will be expected to answer these questions on the discussion board. There will be approximately 10 discussion topics. Each posting will be worth a maximum of five points each.

#### **VIII. Other information:**

**Drops:** You have until June 27th to drop. If you elect to do so, be sure to drop yourself. Do not assume you have been automatically dropped. This is very important, as after the drop date a grade must be given, by state law, whether you attend class or not.

**Adds:** If you are given an add slip, be sure to turn it into Student Services by June 27th. After this date, you will not be allowed to add the class.

**Extra Credit:** Extra credit is extra work and will not be given in this class.

## VIV. Help:

If you should have difficulty grasping the material presented during the course be sure to see your instructor at the first sign of trouble. Often, a few minutes can clear up many problems! If you are having trouble studying, perhaps you need a few study hints or a tutor at the Tutorial

Center. Please come in for help! Always keep in mind that this is a four-unit course. As a general rule, each hour of lecture requires two hours of additional study outside of the classroom each week. Each hour of lab requires one hour of study time, outside the laboratory each week. This equals eight hours of study each week in order to pass this class. Do your planning accordingly.

Success comes before work only in the dictionary. Overall, I hope you have a fun semester and learn Biology along the way. Good Luck.

## X. Academic Dishonesty

Academic dishonesty is unacceptable and will not be tolerated by Reedley College. Cheating, plagiarism and collusion in dishonest activities erode the college's educational and social role in the community.

**Cheating** is the act of deception by which a student misleadingly demonstrates that he/she has mastered information on an academic exercise. Examples include but are not limited to:

- 1. Copying or allowing another to copy a test, paper, project, or performance.
- 2. Using unauthorized materials during a test, for example, notes, formula lists, or "cheat sheets."
- 3. Taking a test for someone else or permitting someone to take a test for you.

**Plagiarism** is the act of representing the work of another as one's own without giving credit. Plagiarism includes but is not limited to:

- 1. Incorporating the ideas or words of another's work without giving appropriate credit.
- 2. Representing another's artistic or scholarly works, such as musical compositions, computer programs, photographs, etc., as one's own.

Disciplinary Procedures are outlined in your Reedley College student catalog and are summarized as follows when a faculty member discovers a violation:

- 1. Conference with student to address allegations
- 2. Notification of division dean, report for permanent record of student.
- 3. May give student "F" for assignment or course.
- 4. If more than one infraction has occurred, the student may go on probation, be suspended, or expelled. An appeal may be made within 15 days of notification.