**Reedley College**

**Fall 2012**

**Biology 3 – Introduction to Life Science (4 units, #57348, lecture and lab M W 6:00-8:15pm, Room: LFS C)**

Instructor: Dr. Susanne Koch-Krueger

E-mail:

1. **Course description:**

3 lecture hours and 2 laboratory hour per week

This course is recommended for non-biological science and pre-education majors. It is an introductory course using biological concepts. Organism structure, function, inheritance, evolution and ecology are covered.

 **Prerequisites:** None

 **Advisories:** Eligibility for English 125 and 126

 **Objectives:**

* familiarize the student with the scientific method
* introduce basic biochemistry and cell structure
* cover principles of genetics
* introduce concepts of evolution
* explain the diversity and organization of live
* introduce body organization and homeostasis
* engage students in discussions of ecology
1. **Required Materials:**

Text book: “Essentials of Biology”, 2nd edition, by Sylvia S. Mader

6 scantrons 882 E for lecture exams, lined paper for laboratory reports, quiz strips,

Plain white paper for plates, lead and/or coloring pencils

1. **Grading:**

A total of 1000 points will be available for this class;

5 lecture exams (120 pts each) total of 600

5 lab plates total of 50

Laboratory presentation total of 100

10 quizzes (15 points each) total of 150

Lab reports total of 100

Grading for this class will be on the following curve:

100-90%=A, 89.9-80%=B, 79.9-70%=C, 69.9-60%=D, 59.9% and below=F

(thus 1000-900 points = A, 899-800 points =B, 799-700 points = C, …)

You are responsible for keeping track of your grades. Start your own tally sheet at the beginning of the semester (see page 2 of syllabus).

Lecture Exams will be combinations of multiple choice, true/false, and fill in the blanks. Exams will be based on lecture material.

Lab Reports will be based on laboratory experiments, measurements and instrumentation.

The due date for these reports is the following class meeting, thus Monday labs are due Wednesdays, Wednesday labs are due the next Monday. Late lab reports due to missed classes are subject to a 10% point deduction. Lab reports more than a week late will not be accepted.

Make up exams will not be offered! You may get one special circumstance for the semester only, if you can show documented proof of your absence. You must also inform your instructor within 24 hours if you miss an exam.

Quizzes will be given unannounced at any time during lecture or lab. Quizzes can never be made up, thus be on time and don’t leave early.

Regular and on-time attendance is expected. If you miss class it is your responsibility to obtain missed materials from a classmate not your instructor.

## Other information

Academic Dishonesty

Cheating, copying and plagiarism are unacceptable and will result in disciplinary actions. Remember, academic dishonesty can get you expelled from the college and will go on your record. Please refer to your student handbook for further details.

## Accommodations

Students with a verified need for alternate media may receive special accommodation. Please contact your instructor as soon as possible.

***Last day to add, or drop without “W” is Friday August 24th, 2012***

*Final drop date (“W” and No Refund) for Fall 2012 classes is Friday October 12th. It is the student’s responsibility to drop the class when necessary.*

The following class and laboratory schedule is tentative only, and the instructor reserves the right for changes. Changes will be announced in class.

No food or drink allowed in class.

Cell phones and other electronic devices must be turned off!

**Exam Tally Sheet:**

 **Exam 1 Quiz 1 Quiz 1 Presentation**

 **Exam 2 Quiz 2 Quiz 2 Plates**

 **Exam 3 Quiz 3 Quiz 3 Lab Reports**

 **Exam 4 Quiz 4 Quiz 9**

 **Exam 5 Quiz 5 Quiz 10**

 **/1000pts**

**Tentative Lecture Schedule, changes will be made as needed**

Date Week Topic Chapter

Aug 13 1 Introduction, Safety, Syllabus, Adds/Drops 1

Aug 15 Basic Chemistry of Life 2,3

Aug 20 2 Cell Structure and Function 4

Aug 22 Cell Dynamics 5

Aug 27 3 Metabolism 6

Aug 29 Photosynthesis, Respiration 7

Sep 3 4 Labor Day, No class

Sep 5 Reproduction 8

Sep 10 5 Cell Cycle and Cellular Reproduction 8

Sep 12 Meiosis and Sexual Reproduction 9

Sep 17 6 Catch up and review

Sep 19 Exam 1

Sep 24 7 Mendelian Genetics and Gene Biology 10

Sep 26 Student Presentations

Oct 1 8 Molecular Biology of the Gene 11

Oct 3 Biotechnology and Genomics 13

Oct 8 9 Darwin and Evolution 14

Oct 10 Microevolution 15

Oct 15 10 Macroevolution 16

Oct 17 Exam 2

Oct 22 11 Viruses and Bacteria 17

Oct 24 Plants and Fungi 18

Oct 29 12 Evolution and Taxonomy 19

Oct 31 Animal Organization and Homeostasis 22

Nov 5 13 Circulation and Cardiovascular Systems 23

Nov 7 Exam 3

Nov 12 14 Respiratory and Urinary Systems 24

Nov 14 Digestive System 24

Nov 19 15 Catch up and Review

Nov 21 Exam 4

Nov 26 16 Human Population 30

Nov 28 Exstinction 30

Dec 3 17 Major Ecosystems of the Biosphere 31

Dec 5 Conservation of Biodiversity 32

Dec 10 18 Finals Week, Review, Exam 5

**Laboratory Schedule**

**Week Topic**

1. Metric system and basic instrumentation
2. The Microscope and cell microscopy
3. Scientific Method and Discussion

All other labs will build upon lecture material and will be announced in class. Handouts will be provided by the instructor.