**BIOLOGY 301L: MOLECULES TO ORGANNISMS (Non-major course)**
**Summer, 2011**

**Instructor**: **Dr. Zaiming Zhao**
**Office**: PAI 1.22C **Phone**: 232-1882 **Office hours**: Tue, Wed, Thu 10:30am-11:30am
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**Lecture Time**: Mon, Tue, Wed, Thu, and Fri 11:30am-1:00pm, (Room: RLM 5.104)

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| **Discussion sections**: | 90315 | MW | 1:00pm – 2:00pm | RLM 5.118 |
| | 90320 | MW | 2:00pm – 3:00pm | RLM 5.118 |

**Course Descriptions:**

Introduction to cell biology, including cell types, cellular organization, physiology, microorganisms as cells and organisms, viruses; molecular biology and genetics, including DNA replication, transcription and translation, gene action, Mendelian genetics, immune processes; organismal biology, including structure, organization, physiology and development of animals (emphasis on human biology) and plants.

**Required Text**: Biology: Life on Earth, by Audesirk, Audesirk, and Byers($8^{th}$ ed.)

**Recommended supplement**:
Study Guide for Biology - Life on Earth (ISBN: 0-13-195769-4)

**Exams and Grading**:
The exams will cover both lecture material and assigned reading in the text. There will be three one-hour exams given during the regular class time, each of which will count 25% of a student's grade. The final will be a comprehensive exam; this will count 25% of the grade. All exams are multiple choices. Grades will be assigned as follow:

**A = 90-100 B = 80-89 C = 70-79 D = 60-69 F = 59 or below**

**Academic Integrity**
Students who violate University rules are subject to disciplinary penalties. Refer to the Student Judicial Services Website http://deanofstudents.utexas.edu/sjs/

Scholastic dishonesty will not be tolerated. Students who violate University rules on scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and dismissal from the University. Since dishonesty harms the individual, all students, and the integrity of the University, policies on scholastic dishonesty will be strictly enforced. A **UT ID** must be presented in order to turn in any exam. Only those students with written medical excuses (signed by a doctor) will be automatically to make up an exam.

**Lectures**

Attendance will not be taken in lectures. As my exams will be drawn mainly from the lectures, it is important that you be here. I suggest you exchange phone numbers, so if you miss a class, you can get the notes. You will **always** be responsible for what happens in class, including the announcements, handouts, and academic material.

**Discussion Sections**

The discussion sections will go over lecture and reading material; each will cover lectures of previous time.

Participation is not mandatory. However, attendance will be taken and your final grade will be raised 2 points for adequate attendance.

For example: 75, 85, 74, and 78

Then, Average = 78 + 2 = 80 → B

**Discussion sections start this Wednesday.**

**Student Accommodation Policy**

Students with disabilities who believe that they may need accommodations in this class are encouraged to contact the Office of Students with Disabilities at (OSD phone# 471 6259, office SSB 4.104 on 100B West Dean Keeton St) as soon as possible and bring the documentation. For more information, visit http://www.utexas.edu/depts/dos/ssd/.

**Final Exam**: **Monday, August 15, 2:00–5:00 pm (location to be announced)**

No excuses to take the exam early or later will be accepted. If the final exam is missed, an F or an X will be given as the final symbol, depending upon the circumstances.

**Summer 2011** **BIO 301 L (non-major)** **Dr. Z. ZHAO**

| **Dates** | **lecture topic** | **Reading** |
|---|---|---|
| July 11 | Course introduction | |
| through | Cell structure and function | Chapter 4 |
| July 20 | Classification of organisms | Chapter 18 |
| | Bacteria, Virus | Chapter 19 |
| | Protistans | Chapter 20 |
| | Fungi | Chapter 22 |
| | Animals: An introduction (Invertebrates) | Chapter 23 |
| | Animals: An introduction (Vertebrates) | Chapter 24 |
| | Animals: Tissues, organs, and organ system | Chapter 31 |
| | Animals: Digestion and Nutrition | Chapter 34 |
| | Cell biology: Biological chemistry | Chapter 3 |
| **July 21(Thu)** | **Exam 1** | |
| July 22 | Animals: Respiration | Chapter 33 |
| through | Animals: Circulation | Chapter 32 |
| Aug 1 | Cell biology: Membrane structure and function | Chapter 5 |
| | Cell biology: Aerobic respiration | Chapter 8 |
| | Animals: Immunity | Chapter 36 |
| | Animals: Urinary system | Chapter 35 |
| | Animals: Endocrine system | Chapter 37 |
| | Animals: Reproduction | Chapter 40 |
| | Animals: Development | Chapter 41 |
| **Aug 2 (Tue)** | **Exam 2** | |
| Aug 3 | Cell biology: Cell reproduction | Chapter 11 |
| through | Cell biology: Mendelian genetics | Chapter12 |
| Aug 10 | Cell biology: Chromosomes and human genetics | Chapter12 |
| | Cell biology: DNA structure and function | Chapter 9 |
| | Cell biology: RNA and protein synthesis | Chapter 10 |
| | Plants: An introduction | Chapter 21 |
| | Plants: Anatomy and nutrient transport | Chapter 42 |
| | Cell biology: Photosynthesis | Chapter 6 |
| | Plants: Reproduction and development | Chapter 43 |
| | Recombination DNA and genetic engineering | Chapter 13 |
| **Aug 11(Thu)** | **Exam 3** | |
| Aug 12 | Review for the Final Exam! | |

**Final Exam**: **Monday, Aug 15, 2:00pm-5:00pm (location to be announced)**