

# Course Syllabus for Biology: Human Perspectives

BIOL 101.01                      Spring 2012

MWF 1:00-1:50 pm

Foster Science Building Room 417

## **Mission Statements:**

*ACU:* The mission of Abilene Christian University is to educate students for Christian service and leadership throughout the world.

*College of Arts and Sciences:* The mission of the College of Arts and Sciences is to educate students for worldwide Christian service and leadership through programs of study and other learning experiences that blend a liberal arts education with professional and career education.

*Biology Department:* The Department of Biology educates students for Christian service and leadership by preparing them to become biological scientists, pre-college teachers, and health care professionals.

**Instructor:** Dr. Joshua Brokaw

Office: Foster Science Building Room 479D

Office Hours: 9:30-10:30 am (MWF), 8:30-9:30 am (TR), 2-3 pm (MW), or appointment\*

Phone: 325-674-2168

E-mail: [josh.brokaw@acu.edu](mailto:josh.brokaw@acu.edu)

\*E-mails are welcome at any time and can be used to schedule appointments outside of my scheduled office hours.

## **Course Description:**

BIOL 101, Biology: Human Perspectives (3 credit hours). A conceptual investigation of biological principles from the human perspective - including historical, theoretical, ethical, and practical aspects. May be used to satisfy Science University Requirements. For non-biology majors.

**Textbook:** none; but see: Concepts in Biology, 14<sup>th</sup> edition, by Enger, Ross, and Bailey (2012)

**Purpose:** This course provides an introduction to biological principles from a human perspective, including historical, theoretical, ethical, and practical aspects, in order to allow students to make scientifically informed decisions affecting personal wellness and public policies.

**Anticipated Outcomes and Competency Measures:** This course provides the opportunity to learn basic facts and principles of biology in the contexts of culturally and economically important issues pertaining to a wide variety of biological fields. Course competencies include demonstrated knowledge and understanding of 1) the basic **philosophical approaches to science**; 2) function of the **human body** and major problems encountered in **human medicine**; 3) cultural and economic importance of **plant biology**; 4) **cell biology**, including basic **biochemistry** and **genetics**; 5) **evolution** and the creation of **biological diversity**; and 6) **ecology** and **environmental sustainability**. Competency in this biological knowledge will be assessed by your performance on quizzes, tests, and a comprehensive final exam as outlined below.

**Grade Assessment:**

| Grades     | Point System | Weight |
|------------|--------------|--------|
| Attendance | 50           | (10%)  |
| 10 Quizzes | 50           | (10%)  |
| 3 Tests    | 300          | (60%)  |
| Final Exam | 100          | (20%)  |
| Total      | 500          | (100%) |

**Grade Scale:**

|    |                      |
|----|----------------------|
| A: | 448-500 points       |
| B: | 398-447 points       |
| C: | 348-397 points       |
| D: | 298-347 points       |
| F: | less than 298 points |

**Attendance:** Attendance is vital for success in this class. University policy states that students are allowed absences of no more than 9 MWF meetings. These include “approved absences” as well as other absences. The **only** acceptable excuses for missing class are 1) illness with **doctor’s letter** (note: the school medical clinic **does not** provide excuse notes under most circumstances), 2) death in immediate family (parents, siblings, grandparents), 3) official school trips (with **advance** approvals).

**About 10% of your grade depends on attendance.**

**Attendance Grading:**

| Days Missed | Points Awarded              |
|-------------|-----------------------------|
| 0           | 50                          |
| 1           | 50                          |
| 2           | 45                          |
| 3           | 40                          |
| 4           | 35                          |
| 5           | 30                          |
| 6           | 25                          |
| 7           | 20                          |
| 8           | 15                          |
| 9           | 10                          |
| 10          | Automatic withdrawal with F |

**All quizzes, tests, and exams should be taken when scheduled.** If an acceptable excuse (as stated above) for missing a quiz or test is given, you may take it within a week upon your return. **Students must notify the professor prior to the next class that they are requesting a “make-up.”** According to university policy, if a student misses a final examination with permission, the teacher will record an “I” (incomplete) for the course grade. The final examination may be given at a later date (within the first six weeks of the following semester), with permission from the college dean.

**Quiz and Test Schedule:**

| Week   | Day  | Date   | Event                         |
|--------|------|--------|-------------------------------|
| 1      | Wed  | 18-Jan | First Day                     |
| 2      | Mon  | 23-Jan | <b>Quiz 1</b>                 |
| 3      | Mon  | 30-Jan | <b>Quiz 2</b>                 |
| 4      | Mon  | 6-Feb  | <b>Quiz 3</b>                 |
| 5      | Mon  | 13-Feb | <b>Quiz 4</b>                 |
| 6      | Mon  | 20-Feb | <b>Test 1</b>                 |
| 7      | Mon  | 27-Feb | <b>Quiz 5</b>                 |
| 8      | Mon  | 5-Mar  | <b>Quiz 6</b>                 |
|        | Mon  | 12-Mar | <b>Spring Break</b>           |
| 9      | Mon  | 19-Mar | <b>Optional Quiz 7</b>        |
| 10     | Mon  | 26-Mar | <b>Quiz 8</b>                 |
| 11     | Mon  | 2-Apr  | <b>Test 2</b>                 |
| 12     | Mon  | 9-Apr  | <b>Quiz 9</b>                 |
| 13     | Mon  | 16-Apr | <b>Quiz 10</b>                |
| 14     | Mon  | 23-Apr | <b>Quiz 11</b>                |
| 15     | Mon  | 30-Apr | <b>Quiz 12</b>                |
|        | Wed  | 2-May  | <b>Test 3</b>                 |
| Finals | Tues | 8-May  | <b>Final Exam</b> , 8-10 a.m. |

**Quizzes:** Quizzes contain 10 multiple-choice questions. As noted in the schedule, a total of 12 quizzes will be given during the first 10 minutes of most Monday classes **over material covered following the previous quiz or test.** The lowest 2 quiz scores will be dropped. All quizzes require use of a long scantron form. **You will need to bring scantron answer sheets (long forms only) and a #2 pencil with you for quizzes.** FYI: I will return graded scantrons, and the back sides of scantrons can be used for separate quizzes or tests.

**Tests and Final Exam:** Tests covering the 3 major sections of the course **will be given on dates noted in the schedule**. The Final Exam is **comprehensive** but will only cover questions from previous tests and quizzes. Tests last 80 minutes and the final exam lasts 105 minutes. **All tests and exams are composed of multiple-choice questions following the same format and based on the same material as quizzes. You will need to bring scantron answer sheets (long forms only) and a #2 pencil with you for tests and exams.**

**Order of Topics:** \* Any changes to planned topics will be communicated orally and/or in writing to students.

**Topics:**

Science of Biology  
History of Medicine  
Human Body: Multicellular Metabolism  
Human Body: Nutrition  
Human Body: Control Systems  
Human Body: The Mind  
Human Body: Reproduction  
Plants and People  
The Plant Body  
Plant Reproduction  
Genetics  
Evolution  
Systematics

**Topics continued:**

Prokaryotes  
Protists  
Plants and Fungi  
Animals  
The Cell  
Biochemistry  
Energy Production  
Biotechnology  
Ecosystems  
Community Ecology  
Population Ecology  
Behavioral Ecology  
Environmental Ethics

**Learning Disabilities:** If you have a documented disability and wish to discuss academic accommodations, you must contact the *ACU Student Disability Services Office* (part of *Alpha Academic Service*) at (325) 674-2667 to make an appointment with the Director of Disability Services. In order to receive accommodations, you must be registered with them for each class in which you need accommodations. They will make necessary arrangements in cooperation with instructors.

**Behavior/Dress Code:** Any behavior or dress that distracts other students from learning will receive one warning. If there is a second infringement, you will be asked to leave class.

**Academic Integrity:** Cheating on quizzes, tests, or exams will automatically result in a grade of F. It will be reported to the department chair and the dean according to the procedures established by the university.