

## Biology 123.001 – Human biology

<u>Instructor:</u>	Dr. Robert Wiggers, Dept. Biology
<u>Office:</u>	Room 204 Miller Science Building, 468-2147, <a href="mailto:rwiggers@sfasu.edu">rwiggers@sfasu.edu</a>
<u>Office Hours:</u>	MWF: 10 – 11; TR: 9:30 – 11; W: 1 – 3; R: 1 - 3
<u>Text:</u>	Human Biology, 5 <sup>th</sup> ed. by Johnson / Introductory Zoology Laboratory Manual by McCord
<u>Supp. Materials:</u>	Class notes on D2L
<u>Class time:</u>	TR 11 – 12:15 in S233

**Course Description:** Four semester hours, three hours lecture, two hours lab per week. Biological principles for non-science majors. Study of the evolution of man, organ systems, and the human organism. May not be used to meet graduation requirements of students majoring in the College of Sciences and Mathematics or for certification of high school teachers in biology. Required lab fee.

**Pre-requisites:** TSI compliance in English & Reading

**Co-requisite:** BIO 123L

**Program Learning Outcomes:** There are no specific program learning outcomes for this major addressed in this course. It is a general education core curriculum course and / or a service course.

### General Education Core Curriculum Objectives / Outcomes:

- **Core Objective 1. Critical Thinking:** to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information. (SLO's 1 – 6)
- **Core Objective 2. Communication Skills:** to include effective development, interpretation and expression of ideas through written, oral and visual communication. (SLO – 5)
- **Core Objective 3. Empirical and Quantitative Skills:** to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions. (SLO – 3)
- **Core Objective 4. Teamwork:** to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal. (SLO - 6)

### Student Learning Outcomes:

- **SLO – 1:** Demonstrate an understanding of the scientific process by designing experiments that address a testable hypothesis (CO #1)
- **SLO – 2:** An understanding of the basic human organ systems, including their anatomy and physiology, their control, and their function in the whole organism context (CO #1)
- **SLO – 3:** Use quantitative reasoning to interpret and draw conclusions from data collected during laboratory exercises and supplemental readings in lecture (CO #1 & #3)
- **SLO – 4:** An understanding of how humans interact with and impact the ecosystem (CO #1)
- **SLO – 5:** Be able to present collected scientific data in a meaningful and clear fashion, in both written and oral form (CO #1 & #2)
- **SLO – 6:** Demonstrate the skills necessary to function as a contributing team member in order to collect and present scientific data (CO #1, #2, & #4)

**Course Calendar: Lecture (all topics required in all sections)**

Week	Lecture	Core Objective	Activity
1	Biological Molecules and Cellular Structure	1	Critical Reading: The Scientific Method Web Exercise: The Scientific Method
2	Cellular Processes; Tissues, Organs, & Body Organization	1, 2, 3	Critical Reading: Learning to be a Critical Thinker (CO #1) Critical Reading: Sources of Scientific Information & Data Presentation (CO# 2 & 3)
3	Tissues, Organs, & Body Organization, cont.; The Skeletal System	1	Critical Reading: Liposuction vs. Lipodissolve
4	Muscular System, Nervous System	1	Critical Reading: Muscle Mass and Doping
5	Nervous System, cont; The Senses	1	Critical Reading: Medically Induced Comas and CNS Injuries
6	Blood; The Cardiovascular System	1	Critical Reading: Cord Blood Banking
7	The Cardiovascular System, cont; The Lymphatic System	1	Critical Reading: Comparative Effectiveness Research
8	The Lymphatic System, cont; The Respiratory System	1	Critical Reading: Antibiotic Resistance Critical Reading: Second Hand Smoke
9	The Digestive System; The Urinary System	1	Critical Reading: Living Kidney Donors
10	Urinary System, cont; The Endocrine System	1	Critical Reading: Diabetes and Rising Costs of Treatment
11	Cellular Function & Division; Reproduction & Development	1	Critical Reading: Choosing the Sex of Offspring
12	Reproduction & Development, cont; Genetics	1	Critical Reading: Genetic Testing and Disease Prediction
13	Genetics, cont; Cancer	1	Critical Reading: Prophylactic Surgery for Cancer
14	Human Evolution, Humans And Their Ecosystem	1	Critical Reading: The <i>Homo floresiensis</i> Controversy
15	Humans and their Ecosystem, cont	1	Critical Reading: Global Warming
16	Final		

**Course Calendar: Laboratory (common to all sections)**

<b>Week</b>	<b>Lab</b>	<b>Core Objective</b>	<b>Activity</b>
1	The Scientific Method	1,3	The Scientific Method in Everyday Life – Microbes & Hand-washing: Hypothesis Formulation, Data Collection, Data Analysis; Instructor will review critical readings (from lecture) that detail the Scientific Method and Critical Thinking
2	The Microscope	*	
3	Skeletal System	*	
4	Skeletal Muscles	*	
5	Nervous System	*	
6	Sensory Perception	*	
7	The Circulatory System	*	
8	Microbes & the Human Body	*	
9	Respiratory System	2,3,4	Critical Instruction: Review critical readings (from lecture) that detail the Sources of Scientific Information & Data Presentation (CO #2 & 3) Critical Instruction: Discussion of Basic Elements of Teamwork (CO #4) Measurement of (2) Lung Volumes, Calculation of (3) Lung Volumes (CO #3) Preparation of Graphic Data of Measured and Calculated Lung Volumes (CO #2) Team Preparation & Presentation of a Powerpoint Presentation Detailing Collected Lung Volume Data (CO #2 & 4)
10	The Genitourinary System	*	
11	Mitosis & Meiosis	*	
12	Patterns of Inheritance	3	Probability Calculations in Inheritance: From Pedigrees & Family Histories, Predictions of Genotypes & Phenotypes
13	Vertebrate Evolution	*	
14	Global Climate Change	*	
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\*: Additional exercises are being developed, in conjunction with a newly hired laboratory coordinator, for implementation beginning Fall, 2014. Core Objectives will be assigned as these exercises are developed

### Grading Policy

Your course grade will be determined by grades from exams and quizzes, homework assignments, and your performance in laboratory activities. Your final grade is determined by the percentage of points you earn:

PERCENTAGE OF POINTS	LETTER GRADE
90 – 100%	A
80 – 89%	B
70 – 79%	C
60 – 69%	D
0 – 59%	F

## Expectations For Student Conduct In Bio 123

1. **Attendance is expected but not mandatory; generally poor attendance will earn a poor grade.**
2. I expect each person to be **ON TIME**; tardy students are distracting to both me and those who made it on time and are trying to follow the lecture.
3. If you arrive late for an exam, one of two things will happen: If no one has yet completed the exam or left the room, you will be allowed to take the exam in the time remaining; if any students have left the room, you will not be allowed to take the exam and a grade of "0" will be recorded.
4. Once the exam has begun, you will not be allowed to leave the room for any reason. If you leave, you are done with the exam.
5. Make-up exams will only be allowed in the case of a University approved absence (illness **with a Doctor's note**, a family crisis with verification from another family member, or a religious holiday). **YOU MUST NOTIFY ME WITHIN 24 HOURS OF A MISSED EXAM TO BE ELIGIBLE FOR A MAKE UP EXAM.** If you will miss an exam due to a University sponsored outing, you must notify me before the exam date. All make-up exams will be arranged at **the instructors earliest convenience**. As per University policy (see policy A-10: Class attendance and excused absences), if you miss three weeks of class (6 days), you will **NOT BE ALLOWED TO MAKE UP ANY SUBSEQUENTLY MISSED WORK, EVEN IF THAT PARTICULAR ABSENCE IS EXCUSED.** Excused absences in lab may be made up by attending other lab sections in the same week as the missed lab. Once you miss (3) labs, no further work may be made up (refer to policy A-10).
6. All pagers and cell phones must be turned off or set to silent mode before entering this class. Further, cell phones must be kept off the desks during class time.
7. As per departmental policy, you are required to fill out on-line evaluations for this course. If you fail to do so, your final grade will be docked by one percentage point. Evaluations can be accessed through MY SFA under the "My Services" tab.

### Academic Integrity (policy A-9.1)

Academic integrity is a responsibility of all university faculty and students. Faculty members promote academic integrity in multiple ways including instruction on the components of academic honesty, as well as abiding by university policy on penalties for cheating and plagiarism.

#### Definition of Academic Dishonesty

Academic dishonesty includes both cheating and plagiarism. Cheating includes but is not limited to (1) using or attempting to use unauthorized materials to aid in achieving a better grade on a component of a class; (2) the falsification or invention of any information, including citations, on an assigned exercise; and/or (3) helping or attempting to help another in an act of cheating or plagiarism. Plagiarism is presenting the words or ideas of another person as if they were your own. Examples of plagiarism are (1) submitting an assignment as if it were one's own work when, in fact, it is at least partly the work of another; (2) submitting a work that has been purchased or otherwise obtained from an Internet source or another source; and (3) incorporating the words or ideas of an author into one's paper without giving the author due credit.

Please read the complete policy at [http://www.sfasu.edu/policies/academic\\_integrity.asp](http://www.sfasu.edu/policies/academic_integrity.asp)

### Withheld Grades (Semester Grades, policy A-54)

Ordinarily, at the discretion of the instructor of record and with the approval of the academic chair/director, a grade of WH will be assigned only if the student cannot complete the course work because of unavoidable circumstances. Students must complete the work within one calendar year from the end of the semester in which they receive a WH, or the grade automatically becomes an F. If students register for the same course in future terms the WH will automatically become an F and will be counted as a repeated course for the purpose of computing the grade point average.

The circumstances precipitating the request must have occurred after the last day in which a student could withdraw from a course. Students requesting a WH must be passing the course with a minimum projected grade of C.

*Add additional information as needed to meet your departmental or course needs.*

### **Students with Disabilities**

To obtain disability related accommodations, alternate formats and/or auxiliary aids, students with disabilities must contact the Office of Disability Services (ODS), Human Services Building, and Room 325, 468-3004 / 468-1004 (TDD) as early as possible in the semester. Once verified, ODS will notify the course instructor and outline the accommodation and/or auxiliary aids to be provided. Failure to request services in a timely manner may delay your accommodations. For additional information, go to <http://www.sfasu.edu/disabilityservices/>.

### **Acceptable Student Behavior (Student Conduct Code, policy D-34.1)**

Classroom behavior should not interfere with the instructor's ability to conduct the class or the ability of other students to learn from the instructional program (see the Student Conduct Code, policy D-34.1). Unacceptable or disruptive behavior will not be tolerated. Students who disrupt the learning environment may be asked to leave class and may be subject to judicial, academic or other penalties. This prohibition applies to all instructional forums, including electronic, classroom, labs, discussion groups, field trips, etc. The instructor shall have full discretion over what behavior is appropriate/inappropriate in the classroom. Students who do not attend class regularly or who perform poorly on class projects/exams may be referred to the Early Alert Program. This program provides students with recommendations for resources or other assistance that is available to help SFA students succeed.