

This is a sample syllabus for BSC2085. Students should reference the section syllabus provided at the beginning of the semester for specifics regarding assignments and grade assignments.

**BSC2085– Section 01**  
**SEMESTER**  
**Lecture Times & Location**  
**Optional Help/Discussion Time & Location**

**Instructor:**

**Office Hours:**

**Teaching Assistants:**

To Be Announced

**BSC 2085 COURSE DESCRIPTION:**

This course is the first of a two-semester human anatomy/physiology sequence emphasizing the cell, stimulus-response concept, and the skeletal-muscular and first half of the nervous system. Some of the information from this course will provide students with background information that will be used in anatomy and physiology II (BSC 2086).

**BSC2085 COURSE OBJECTIVES:**

At the end of the semester, students will be able to:

- describe the basic structure found within cells
- describe the basic components, functions, and interactions of the integumentary, skeletal, nervous, and muscular system
- explain how homeostasis is regulated by cells, tissues, and organs of the integumentary, skeletal, nervous, and muscular system
- describe how aging affects the integumentary, skeletal, nervous, and muscular system

In addition, this course has been approved for the Liberal Studies disciplinary requirement of Natural Science and thus is designed to help you become a critical appraiser of the theories of natural science and the facts that support them. Therefore, at the end of the semester, students will also be able to:

- Think critically and cogently about causal relationships with scientific reasoning.

**ASSESSMENT:** What would the complimentary (matching) mRNA and tRNA molecules be from a DNA molecule that has the following triplets?

coding strand: ATG-CAA

template strand: TAC-GTT

- A) mRNA: AUG-CAA, tRNA: TAC-GTT
- B) mRNA: ATG-CAA, tRNA: TAC-GTT
- C) mRNA: UAC-GUU, tRNA: AUG-CAA
- D) mRNA: TAC-GTT, tRNA: AUG-CAA
- E) mRNA: AUG-CAA, tRNA: UAC-GUU

- Assess previous experimentation and published scientific results (i.e., analysis of existing work).

**ASSESSMENT:** Kobayashi et. al. (1993) examined ultraviolet light induced damage and death of cultured cells. Three cell lines that contained different amounts of melanin were exposed to UV light. What was the result of their experiment?

- A) the cells with more melanin absorbed more UV radiation and died
- B) the cells with less melanin absorbed less UV radiation and died
- C) the cells with more melanin had less DNA damage and were less likely to die
- D) the cells with less melanin had less DNA damage and were less likely to die
- E) the cells with more melanin had more DNA damage and were more likely to die

- Critically examine and evaluate scientific observation, hypothesis or model construction.

**ASSESSMENT:** A chemical imbalance in the body can cause the heart to stop pumping blood, which in turn will

cause other tissues and organs to cease functioning. This observation supports the view that:

- A) all organisms are composed of cells.
- B) all levels of organization within an organism are interdependent.
- C) chemical molecules make up cells.
- D) blood has magical properties.
- E) congenital defects can be life-threatening.

- Articulate a variety of issues created by the complex interactions among science, technology, and society.

**ASSESSMENT:** Stem cells are able to differentiate into various cell types. Because of this, there is much interest in obtaining stem cell to treat various diseases. Which of the following would be the least objectionable source for stem cells?

- A) an embryo
- B) Wharton's jelly
- C) a fetus
- D) the mesothelium lining the heart
- E) from the hippocampus of adult brains

- Use scientific perspectives to evaluate contemporary problems facing society.

**ASSESSMENT:** Osteoporosis is a condition that may affect many older adults. This condition can affect the quality of life for many. However, there are methods and treatments to reduce the signs of osteoporosis. Which of the following is not a method for reducing osteoporosis?

- A) bone transplant
- B) increase exercise
- C) hormone replacement therapy
- D) increase intake of vitamin D
- E) increase intake of calcium

**COURSE MATERIALS:**

**Fundamentals of Anatomy and Physiology, 10<sup>th</sup> edition**, by Martini, Nath, and Bartholomew (with Mastering A and P). This text is also used for Anatomy and Physiology II (BSC2086)

**Required Online Content:**

[www.masteringaandp.com](http://www.masteringaandp.com) Course ID: XXXXXXXX

This is an online learning software package developed by the publisher of your textbook with a vast array of useful resources tailored specifically to the material covered in the text. Among these resources are: videos, mp3 tutor sessions, study tools, self-quizzes, practice tests and an optional online version of the textbook itself (i.e., and "e-book"). You will be assigned Mastering A and P assignments throughout the semester. Directions for registering with Mastering A and P for this course are provided on Blackboard under "Course Library".

**Course Web site:**

Blackboard (<http://campus.fsu.edu>) . Students will find announcements, lecture slide sets, and grades on the course website. Please refer to the course website and check your FSU email frequently to receive updated information.

**iClickers:**

Students are required to purchase an iClicker polling device for this course. Please have your iClicker device purchased and registered (instructions are located on the announcement page of Blackboard) by the second week of class. Several iClicker questions will be used during every class meeting to assess your understanding of the material. Please be aware: Students caught operating more than his/her own iClicker will forfeit any points gained that day. The same penalty will be applied to the absent student(s) who permitted another student to operate their iClicker. Each offense will also be considered a violation of FSU's Academic Honor Policy

**COURSE ASSIGNMENTS AND EVALUATION:**

Grades will come from three sources

- Four unit exams with a final that will include a cumulative component. Each exam, including the final will be contribute 16% towards the student's final grade. As a whole, the exam will account for 80% of the student's

grade.

- In class iClicker quizzes will be given throughout the semester. The total points earned from the iClicker questions will account for 10% of the student's final grade.
- Mastering A and P online assignments will also be given throughout the semester. The total points earned from the online assignments will account for 10% of the student's final grade.

Errors or discrepancies in a grade that you have received must be brought to the attention of the instructor within one week of your receiving the grade on Blackboard.

The instructor reserves the right to curve exam grades in a fair and impartial manner when the exams are initially graded under the following conditions:

1. The average exam grade is low enough that the instructor feels the exam warrants a curve.
2. The curve will only serve to improve exam grades and not reduce them.

#### UNEXCUSED ABSENCE POLICY:

Students who miss a scheduled quiz, examination or in-class assignment, or fail to hand in an assignment on time without prior approval or verifiable emergency or suitable documentation (e.g., doctor's note) will be assigned a grade of zero.

#### FINAL COURSE LETTER GRADES:

Exams will account for 80% of the final grade.

A	=	100-92.50%	C	=	77.49-72.50%
A-	=	92.49-89.50%	C-	=	72.49-69.50%
B+	=	89.49-87.50%	D+	=	69.49-67.50%
B	=	87.49-82.50%	D	=	67.49-62.50%
B-	=	82.49-79.50%	D-	=	62.49-59.50%
C+	=	79.49-77.50%	F	=	59.49 and below

#### COURSE SCHEDULE:

Lecture	Date	Topic	Text
1		Introduction, Overview, Homeostasis	Chap 1 (1-22)
2		The Cell: Membrane Function in Transport	Chap 3 (64-70, 87-100)
		<b>No Class</b>	
3		Cell organelles	Chap 3 (66-67,70-80)
4		Cell nucleus, DNA	Chap 3 (82-87)
5		Mitosis & meiosis; Tissues pt 1	Chap 3 (101-108) Chap 4 (113-126)
6		Tissues pt 2	Chap 4 (126-146)
7		Integumentary System	Chap 5 (150-172)
		<b>Exam #1 (Lectures 1-6)</b>	
8		Skeletal System: Osteology	Chap 6 (178-188)
9		Skeletal System: Bone Repair/Growth	Chap 6 (189-202)
10		Articulation: Arthrology	Chap 9 (261-284)
11		Articulation: Arthrology (cont.)	
12		Nervous System: Cells and Organization	Chap 12 (385-398)
		<b>Exam #2 (Lectures 7-12)</b>	
13		Nervous System: The Membrane Potential	Chap 12 (398-413)
14		Nervous System: Synaptic Transmission, Neurotransmitters, Neural Circuits	Chap 12 (413-425)
15		Nervous System: The Brain	Chap 14 (461-503)
16		Nervous System: The Spinal Cord & Nerves	Chap 13 (429-449)
17		Nervous System: Spinal Reflexes	Chap 13 (449-456)
		<b>Exam #3 (Lectures 13-16)</b>	
18		Nervous System: The PNS – Sym. Div.	Chap 16 (531-542)
		Nervous System: The PNS – Parasym. Div.	Chap 16 (542-557)
19		Muscular System: Microscopic Anatomy	Chap 10 (289-298)

20	Muscular System: Muscle Contraction	Chap 10 (298-316)
21	Muscular System: Muscle Contraction (cont.) <b>Exam #4 (Lectures 17-20)</b> <b>No Class</b>	
22	Muscular System: Energetics & Mechanics	Chap 10 (316-323)
23	Muscular System: Smooth and Cardiac <b>Final Exam (21-23 + select topics from previous lectures)</b>	Chap 10 (324-328)

**UNIVERSITY ATTENDANCE POLICY:**

Excused absences include documented illness, deaths in the family and other documented crises, call to active military duty or jury duty, religious holy days, and official University activities. These absences will be accommodated in a way that does not arbitrarily penalize students who have a valid excuse. Consideration will also be given to students whose dependent children experience serious illness.

**ACADEMIC HONOR POLICY:**

The Florida State University Academic Honor Policy outlines the University's expectations for the integrity of students' academic work, the procedures for resolving alleged violations of those expectations, and the rights and responsibilities of students and faculty members throughout the process. Students are responsible for reading the Academic Honor Policy and for living up to their pledge to "...be honest and truthful and...[to] strive for personal and institutional integrity at Florida State University." (Florida State University Academic Honor Policy, found at <http://fda.fsu.edu/Academics/Academic-Honor-Policy>)

**AMERICANS WITH DISABILITIES ACT:**

Students with disabilities needing academic accommodation should: (1) register with and provide documentation to the Student Disability Resource Center; and (2) bring a letter to the instructor indicating the need for accommodation and what type. This should be done during the first week of class. This syllabus and other class materials are available in alternative format upon request. For more information about services available to FSU students with disabilities, contact the: Student Disability Resource Center 874 Traditions Way 108 Student Services Building Florida State University Tallahassee, FL 32306-4167 (850) 644-9566 (voice) (850) 644-8504 (TDD) [sdrc@admin.fsu.edu](mailto:sdrc@admin.fsu.edu) <http://www.disabilitycenter.fsu.edu>

**FREE TUTORING FROM FSU (in addition to tutors located in the Biology Study Center in KING 1054):**

On-campus tutoring and writing assistance is available for many courses at FSU. For more information, visit the Academic Center for Excellence (ACE) Tutoring Services' comprehensive list of on-campus tutoring options at <http://ace.fsu.edu/tutoring> or contact [tutor@fsu.edu](mailto:tutor@fsu.edu). High-quality tutoring is available by appointment and on a walk-in basis. These services are offered by tutors trained to encourage the highest level of individual academic success while upholding personal academic integrity.

**SEXUAL HARASSMENT POLICY:**

It is the policy of the University that its employees and students neither commit nor condone sexual harassment in any form. [http://registrar.fsu.edu/bulletin/grad/info/university\\_notices.htm](http://registrar.fsu.edu/bulletin/grad/info/university_notices.htm)

**STUDENT ELIGIBILITY FOR A INCOMPLETE GRADE:**

Incomplete grades will not be assigned except in the case of exceptional unforeseen circumstances as determined by the instructor.

**LIBERAL STUDIES FOR THE 21<sup>st</sup> CENTURY:**

The *Liberal Studies for the 21<sup>st</sup> Century Program* at Florida State University builds an educational foundation that will enable FSU graduates to thrive both intellectually and materially and to support themselves, their families, and their communities through a broad and critical engagement with the world in which they live and work. Liberal Studies thus offers a transformative experience. This course has been approved as meeting the requirements for the E-Series and thus is designed to help you become an interdisciplinary and flexible thinker; a lifelong learner; and a team builder. *In addition, this course has been approved for the Liberal Studies disciplinary requirement of Natural Science and thus is designed to help you become a critical appraiser of the theories of natural science and the facts that support them.*

**SYLLABUS CHANGE POLICY:**

Except for changes that substantially affect implementation of the evaluation (grading) statement this syllabus is a guide for the course and is subject to change with advance notice.