BISC 104 – How the Body Works
Fall 2021

This GE (D, Life Science) course is designed to give undergraduates an introduction to human physiology. BISC 104 is designed to provide a working knowledge of the human body and many of the associated considerations, such as diseases, genetics, lifestyle, and the effect of both legitimate and illegal drugs. We shall also explore social aspects of many of areas presented. Although there is no prerequisite, general knowledge of introductory biology and chemistry at the high school level is helpful.

Please note that this course is not designed for those majoring in biology or the related health sciences. BISC 104 does not satisfy the requirements for accreditation in any pre-health area of which we are aware, and should not be used in an attempt to satisfy admission requirements into one of the health professions. We do not support, and will not provide help, in using this course for such a purpose. Those who are majoring in biology or any of the health sciences should consider BISC 307, which is designed specifically for pre-health majors.

Learning Objectives: After completing this course, students will have a clear understanding of how the major physiological systems of the human body function. In addition, they will appreciate how the systems both influence and depend upon one another.

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Textbook: (recommended, not required)
Visualizing Human Biology by Kathleen Anne Ireland, 4th edition; Publisher: Wiley

Blackboard Website: https://blackboard.usc.edu/

Lecture: MWF 1–1:50 PM, THH 102

PowerPoint slides of the lectures will be posted to Blackboard in advance of each class meeting. The contents of these slides will be drawn largely from the textbook readings but may also contain information from other sources. A successful learning strategy is to read over the lecture notes before class so that class time can be efficiently spent learning the material in greater depth.

Grading (there is no "extra credit" so please, don't ask):

Lecture Exam 1 (Friday, September 17)	100 points
Lecture Exam 2 (Wednesday, October 13)	100 points
Lecture Exam 3 (Monday, November 8)	100 points
Lecture Exam 4 (Wednesday, December 15; 11AM-12PM)	100 points
Laboratory	100 points
Total	500 points

Exam content: In a course such as this, in which the exact content of the lectures can vary, the student must realize that the examinations can and will cover anything that is discussed in class. Some of this material may not be in the textbook, and will be available only to those who were present in class. For this reason, it is very important that you attend class. There is a high positive correlation between attending class and doing well on examinations. There will be four in-class exams that will consist of a mix of short-answer, multiple choice, true/false, fill-in-the-blank and matching type questions. The fourth exam will cover material since the third exam.

Exams days: If you arrive late for an exam and another student has already finished their exam and left the exam room you will not be permitted to take the exam and will receive a score of zero for that exam.

Re-grading of exams: If you wish to have exam questions re-graded, you must submit a request to your TA within one week of when your exam was returned to you. Your request must be thoroughly explained in writing. TAs will not consider oral requests. The entire answer will be re-graded, not just the part you think deserves more credit. Your score may go up or down as a result of a re-grade.

Missed Exams, assignments, quizzes, etc.: No make-up exams will be given. Students who are unable to take an exam at the scheduled time must give written notification, preferably in advance. Students who miss an exam, assignment, quiz, etc. for a legitimate reason of something *out their control* (*e.g.* a medical issue or a University-sanctioned event) must provide written documentation of said reason within seven days of the exam or assignment due date. Documentation must be sent to Dr. Moore. If documentation is not received within seven days the score for the missed assignment will be a zero. Upon receipt of valid documentation, the score for the missing assignment will be prorated. In other words, the score for the missed assignment will be the average of the score for the other like assignments. (For example, if exam 2 is missed, that score will become the average of exams 1, 3, and 4.) Note that proration will only be done for one missed exam. This policy does not apply for the fourth exam which cannot be missed.

Please note that this course involves conceptual ideas that may not easily be grasped, as well as a significant amount of memorization. These are often challenging to students. BISC 104 is not a trivial course. The entire grade distribution will be used, including Ds and (when we are forced to) Fs. Students who seek less challenging material would be well advised to consider alternate enrollments.

Final grades: Grades will be assigned on a curve, based on the total number of points earned in the course. After each exam a curve will be given by the instructors to indicate roughly what letter grade corresponds to students' current number of points. Specifically, you will be provided with the current course average and a provisional letter grade scale. Please remember that the course mean provided on Blackboard is provisional as it is based on the number of points possible at that point in the course. Only the total number of points earned by the end of the semester will determine course grades.

Pass/no pass status. Should you choose the Pass/No Pass option, you must have a final score equivalent to "C minus" quality or better to receive a "Pass." "No Pass" will be assigned if your final score is less than the equivalent of a "C minus." No petitions for change from Pass/No Pass to graded status will be accepted after the deadline to change status has passed.

Laboratory portion: a separate syllabus will be made available explaining the labs. Labs will begin the second week of class; be sure to attend the first offering of your lab section.

Academic conduct, students with disabilities: Any student requesting academic accommodations based on a disability is required to register with the Office of Disability Services and Programs (DSP, STU 301, 213-740-0776) each semester. You must deliver an approved DSP letter to Dr. Moore early in the semester as possible. Please see SCampus (http://www.usc.edu/dept/publications/SCAMPUS/) for additional policies that are not covered here (i.e. academic integrity, proper conduct, etc.) but that do still apply.

Lecture Schedule, BISC 104, Fall 2021

Lecture #	**Date**	**Topic**	**Chapter(s)**
1	M Aug 23	Introduction to and overview of the course.	
2	W Aug 25	Organization of the human body.	1&2
3	F Aug 27	A (little) bit of chemistry.	3
	M Aug 30	Molecules important for biology.	3
4	W Sept. 1	Cell structure and organization.	4
5	F Sept. 3	Chemical messengers of communication.	4
6	M Sept. 6	*University Holiday (Labor Day).*	
7	W Sept 8	Body tissues.	5
8	F Sept 10	Bones and joints.	6
9	M Sept 13	Musculoskeletal system.	6
	W Sept 15	Review for Exam 1.	
	F Sept 17	**Exam 1, 100 points (covers lectures 1-9).**	
10	M Sept 20	Excitation-contraction coupling.	6
11	W Sept 22	Electrical properties of neurons.	7
12	F Sept 24	Synaptic transmission.	7
13	M Sept 27	Structure and organization of the nervous system.	7
14	W Sept 29	Your brain on drugs.	7

15	F Oct 1	The special senses.	8
16	M Oct 4	The chemical senses.	8
17	W Oct 6	The visual system I.	8
18	F Oct 8	The visual system II.	8
	M Oct 11	Review for Exam 2.	
	W Oct 13	**Exam 2, 100 points (covers lectures 10-18).**	
	F Oct 15	*University Holiday (Fall Break).*	
19	M Oct 18	The immune system.	9, 10
20	W Oct 20	Heart structure and function.	12
21	F Oct 22	Blood vessels.	12
22	M Oct 25	Blood.	12
23	W Oct 27	Lung structure and ventilation.	13
24	F Oct 29	Gas exchange in the respiratory system.	13
25	M Nov 1	Respiratory diseases.	13
26	W Nov 3	Nutrition and the digestive system.	14 & 15
	F Nov 5	Review for Exam 3.	
	M Nov 8	**Exam 3, 100 points (covers lectures 19-26).**	
27	W Nov 10	Kidney function.	16
28	F Nov 12	Hormones.	17
29	M Nov 15	Central endocrine glands.	17
30	W Nov 17	Peripheral endocrine glands.	17
31	F Nov 19	Male reproductive system.	18

32	M Nov 22	Female reproductive system.	18
	W Nov 24	*University Holiday (Thanksgiving).*	
	F Nov 26	*University Holiday (Thanksgiving).*	
33	M Nov 29	Fertilization, pregnancy and development.	19
34	W Dec 1	Genetics and biotechnology.	20
	F Dec 3	Review for Exam 4.	
	W 12/15 Exam 4, 100 points 11:00 am -12:00 pm (covers lectures 27-34).		

Laboratory portion of course: a separate syllabus will be made available explaining the labs. Labs will begin the second week of class; be sure to attend the first offering of your lab section.