

# **Syllabus**

#### **Instructor Contact Information:**

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# **General Course information:**

Course Number: BIO 232

Course Title: Human Anatomy and Physiology II

Course Description: Human Anatomy and Physiology is a required science course for all students majoring

in pre-allied health professions at Oregon Tech. This course is part of a three-term

sequence: BIO 231 covers general concepts of cell biology and human body

organization, and introduces the support and movement of the body; BIO 232 focuses on several integration and regulation systems of human body; BIO 233 introduces the systems that maintain the body homeostasis and insure the continuity of the species. The current term is an introduction to the systematic study of human anatomy and physiology with emphasis on the operation of control systems, including nervous, cardiovascular, immunes systems, as well as hematology. The laboratory sessions emphasize human anatomy with the aid of interactive 3D anatomy program.

Prerequisites: BIO 231 with "C" or better

Credits: 4 term or trimester credits

(for transfer to other schools: 1.5 term credits equal 1 semester credit)

Accreditation: Individual courses cannot be accredited. Oregon Institute of Technology

is accredited by the Northwest Commission on Colleges and Universities (NWCCU), an

institutional accrediting body recognized by the Higher Education Coordination

Commission and the Secretary of the U.S. Department of Education.

#### **Textbook and Resources:**

 Elaine N. Marieb, Katja Hoehn Human Anatomy & Physiology, 10<sup>th</sup> or 11<sup>th</sup> edition without Mastering A&P access code.

Visible Body 3D Human Anatomy Atlas http://www.visiblebody.com

# **Course Objectives:**

Upon completion of this course, the students should be able to:

- Develop a vocabulary of appropriate terminology to effectively communicate information related to anatomy and physiology (memorization and correct spelling of terminology are required).
- Recall the anatomical structures, then recall and explain the physiological functions of body systems.
- Recall and explain the principles of homeostasis and the use of feedback loops to control physiological systems in the human body.
- Use anatomical knowledge to predict physiological consequences, and use knowledge of function to predict the features of anatomical structures.
- Recall and explain the interrelationships within and between anatomical and physiological systems of the human body.
- Make a connection between knowledge of anatomy and physiology and real-world situations, including healthy lifestyle decisions and homeostatic imbalances.

# **Dropping the Course:**

Grade: Please note that it is **your responsibility** to drop the course via Web for Students.

- No grade will appear on your record if you drop by Friday 5pm PST of 2<sup>nd</sup> week of the term
- W (Withdraw) will appear on your record, if your drop by Friday 5pm PST of 7<sup>th</sup> week of the term

Refund: Drop policy in the campus-wide syllabus addresses refund amount and the associated dates.

# **Academic Integrity and Copyright Law at OIT**

Students are expected to demonstrate their knowledge with honesty and integrity. OIT considers academic dishonesty to be an unacceptable practice. Copying questions by any means (electronic or in writing) is against academic integrity policy.

The complete OIT Student Academic Integrity Policy, OIT-14-30, is available on the Oregon Tech web site.

In accordance with Oregon Tech's Intellectual Property policy, OIT-24-101 section 6.215, no course materials or content may be used outside of this course for purposes other than learning the material. This syllabus acts as a legally binding contract. By continuing in this class you acknowledge that you read, understood and agree to these terms.

### **Proctoring:**

Proctoring will be required only for the exams, but not quizzes. Your proctors will not have the exam dates, so it is your responsibility to schedule exams when they are available on the Blackboard.

Please note that starting Summer of 2018, we only accept ProctorU as a proctor. Please check out their website and register: http://www.proctoru.com/.

A live proctor will observe you via web camera, there is no download required. Learn how it works and watch the ProctorU demo: <a href="https://www.proctoru.com/oregontech/">www.proctoru.com/oregontech/</a>.

It is your responsibility to ensure that your computer meets technical specifications for the proctoring session. You should schedule your proctoring session in advance; to do so go to <a href="www.proctoru.com/oregontech/">www.proctoru.com/oregontech/</a>. Late scheduling may not be possible or result in extra charges. All charges associated with ProctorU services are student's responsibility.

### **Grading:**

This course consists of both a lecture and a laboratory portion. The grade in the course reflects the combined level of achievement in both.

•	Lecture quizzes (about 8, including syllabus quiz)	5pts each
•	Lecture exams (2)	50pts. each
•	Lab quizzes (about 8, including introduction)	5pts. each
•	Lab exams (2)	50pts. each

The grades will be assigned on the following scale:

90-100% A
80-89.9% B
70-79.9% C
60-69.9% D
Less than 60% F

Starting from week 2, you have to take weekly quizzes for lecture and lab. Each quiz has 15 questions to complete in 15 minutes, and no proctor is required; it weighs 5 points (0.3-0.4 points per question). Each lecture and lab exam (midterm and final exams) has 50 questions and weighs 50 points (1 point per question). No books/notes are allowed during the exams and all exams require proctoring. You have 50 minutes to complete each exam.

The format of all lecture assessments is multiple-choice. The format for all lab assessments is fill-in-the blank\*\*. Only one attempt is allowed in taking each quiz/exam. Please see course schedule below for the conduct of quizzes and exams.

You can review your quizzes any time after the due date by going to *Grades* and clicking on the quiz of interest and then the score. You can review your exams only once upon the completion of the test. Copying questions by any means (electronic or in writing) is against academic integrity policy.

- \*\*Here are some simple rules about naming structures in lab:
- Please note that there are numerous variations in the nomenclature of anatomical parts, but we will only accept terms **EXACTLY** as they are listed in the lab manual. For example: *optic n. (II)*, not *optic n. (2)*; or *internal carotid a.*, not *internal branch of carotid a.*; or *profunda femoris a.*, not *deep femoral a.* or any other combination of thereof.
- Spelling errors count as wrong answer, even if it's just one letter.
- Use correct singular or plural form of the word. For example, cerebral peduncle, not cerebral peduncles, if only one structure is pointed at.
- **Do not use unnecessary words**. For example: *apex*, not *apex of the heart*.
- Read the question, it specifies what is required of you. For example, *Name and side the vessel* would require you to include *right* or *left*.
- Use one, not both of the alternative names. For example: bicuspid valve or mitral valve, but not bicuspid (mitral) valve.
- **Abbreviations**. When abbreviating, please use appropriate punctuation (period). The only allowed abbreviations are

a. for artery	R. for right	n. for nerve	I. for ligament
v. for vein	L. for left	m. for muscle	b. for bone.

Course Sche	dule:	
	<u>Lecture:</u>	<u>Lab:</u>
Week 1	Syllabus,	Lab 1 The brain
	Unit I, Lecture 1 Development of the NS	Introduction
	Unit I, Lecture 2 Cerebral hemisphere	
Week 2	Lecture quiz 1	Lab quiz 1
	Unit I, Lecture 3 Diencephalon and brain stem	Lab 2 Peripheral nervous system and
	Unit I, Lecture 4 Cerebellum and functional system	spinal cord
	Unit I, Lecture 5 Higher mental functions	
Week 3	Lecture quiz 2	Lab quiz 2
	Unit I, Lecture 6 Protection of the brain	Lab 3 Eye
	Unit I, Lecture 7 Spinal cord	·
	Unit I, Lecture 8 Somatosensory and motor systems	
Week 4	Lecture quiz 3	Lab quiz 3
	Unit II, Lecture 1 PNS and reflex	Lab 4 Ear
	Unit II, Lecture 2 Autonomic nervous system I	
	Unit II, Lecture 3 Autonomic nervous system II	
Week 5	Lecture quiz 4	Lab Midterm
	Unit II, Lecture 4 Eye and vision	
	Unit II, Lecture 5 Chemical senses	
	Unit II, Lecture 6 Hearing and balance	
Week 6	Lecture Midterm Exam	Lab 5 Heart
	Unit III, Lecture 1 Heart anatomy	
	Unit III, Lecture 2 Action potential in cardiomyocytes	
Week 7	Lecture quiz 5	Lab quiz 4
	Unit III, Lecture 3 Pacemaker system of the heart	Lab 6 Vessels of head and neck
	Unit III, Lecture 4 Cardiac cycle	
	Unit III, Lecture 5 Cardiac output	
Week 8	Lecture quiz 6	Lab quiz 5
	Unit III, Lecture 6 Arterial circulation and BP	Lab 7 Vascular system
	Unit III, Lecture 7 Microcirculation	
	Unit III, Lecture 8 Venous and lymphatic systems	
Week 9	Lecture quiz 7	Lab quiz 6
	Unit IV, Lecture 1 Blood and plasma	Lab 8 Principles of blood typing
	Unit IV, Lecture 2 RBC	
	Unit IV, Lecture 3 Platelets and blood clotting	
Week 10	Lecture quiz 8	Lab Final Exam
	Unit IV, Lecture 4 Inflammation	
	Unit IV, Lecture 5 Specific immunity	
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Finals week	Lecture Final Exam	
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All lecture quizzes and exams will be available during the scheduled week from Monday 8am till Wednesday 8pm PST. Lecture quizzes test your knowledge of the material of the previous week. Lecture Midterm is on Units I and II. Lecture Final is on Units I, II, III and IV.

All Lab quizzes and exams will be available during the scheduled week from Thursday 8am till Sunday 8pm PST. Lab quizzes are on previous week's lab. Lab Midterm is on Labs 1-4. Lab Final is on Labs 5-8.

For all quizzes and test, use **plugin (not wireless) connection** and **Google Chrome, Firefox or Safari (for Apple) browser**. All lecture and lab video recordings will be available from Monday 8am till Sunday 8pm PST of the scheduled week only.