

**Instructor Contact Information:**

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**General Course information:**

Course Number: BIO 231

Course Title: Human Anatomy and Physiology I

Course Description: Human Anatomy and Physiology is a basic science course for all students majoring in Health Technologies or Nursing at Oregon Institute of Technology. This course is a three term sequence: BIO 231 covers an introduction to the principles of human anatomy and deals primary with the support and movement of the body. BIO 232 deals with control systems of human body. BIO 233 treats the systems which maintain the body and insure the survival 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. The integumentary, musculoskeletal and endocrine systems and the physiology of excitable tissues are considered in details. Students are also introduced to concepts of cytology and histology. The laboratory sessions emphasize human anatomy with the aid of interactive 3D anatomy program.

Prerequisites: None

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 you 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. 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 (4), but not quizzes. Your proctor will not have the exam dates, so it is your responsibility to schedule exams when they are available on Canvas.

The only acceptable proctor for this online course is ProctorU regardless of your proximity to OIT or any other university's campus. The cost of ProctorU sessions scheduled in advance is incorporated into the course fee. However, last minute scheduling ("take it now" option) results in extra fees that are student's responsibility. Please check out their website and register: <http://www.proctoru.com/>. Learn how it works and watch the ProctorU demo: [www.proctoru.com/oregontech/](http://www.proctoru.com/oregontech/). It is your responsibility to ensure that your computer meets technical specifications for the proctoring session.

## 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

You will be expected to take weekly quizzes for lecture and lab. Each quiz has 15 questions to be completed in 15 minutes, no proctor required; it weighs 5 points (0.3-0.4 points per question).

All lecture and lab exams have 50 questions and weighs 50 points (1 point per question). They are closed-book, no notes and require proctoring. You will 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\*\*. You are only allowed one attempt 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 My 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: *metatarsal 2*, not *2nd metatarsal* or *metatarsal two*, *metatarsal II* or any other combination of thereof.
- **Spelling** errors count as wrong answer, even if it's just one letter.
- **Do not use unnecessary words.** For example: *body of femur*, not *body of the femur*
- **Read the question, it may have helpful hints.** For example, *opening* usually refers to *foramen*, *depression* refers to *fossa* and *bone* refers to the entire bone and not its part. If the question states *Name the structure and the bone*, remember to include both, for example: *anatomical neck of humerus*, but not *anatomical neck*. Please compare with *Name the structure* and the correct answer *surgical neck*. Do not add m. or l. if the question already contains it. For example: *Structure on the image is \_\_\_ muscle*. Correct answer would be *deltoid*, but not *deltoid m.*
- **Use one, not both of the alternative names.** For example: *body of humerus* or *shaft of humerus*, but not *body (shaft) of humerus*
- **Abbreviations.** When abbreviating, please use appropriate punctuation (period). The only allowed abbreviations are: *m.* for muscle, *l.* for ligament *b.* for bone.

**Course Schedule:**

	<u>Lecture:</u>	<u>Lab:</u>
Week 1	Syllabus, <a href="#">Syllabus quiz</a> Unit I, Lecture 1 Introduction Unit I, Lecture 2 Cell	Lab 1 Introduction <a href="#">Introduction</a>
Week 2	<a href="#">Lecture quiz 1</a> Unit I, Lecture 3 Plasma membrane Unit I, Lecture 4 Epithelial tissue Unit I, Lecture 5 Muscular and nervous tissues	<a href="#">Lab quiz 1</a> Lab 2 Musculoskeletal system, the Shoulder and the Upper arm
Week 3	<a href="#">Lecture quiz 2</a> Unit I, Lecture 6 Connective tissues Unit I, Lecture 7 Integumentary system Unit II, Lecture 1 Bone structure	<a href="#">Lab quiz 2</a> Lab 3 Musculoskeletal system, the Forearm and the Hand
Week 4	<a href="#">Lecture quiz 3</a> Unit II, Lecture 2 Bone metabolism & growth Unit II, Lecture 3 Joints Unit II, Lecture 4 Muscle structure	<a href="#">Lab quiz 3</a> Lab 4 Musculoskeletal system, the Hip and the Thigh
Week 5	<a href="#">Lecture quiz 4</a> Unit II, Lecture 5 Muscle contraction Unit II, Lecture 6 Twitch, tetanus, lever system -	<a href="#">Lab quiz 4</a> Lab 5 Musculoskeletal system, the Lower Leg and the Foot
Week 6	<a href="#">Lecture Midterm Exam</a> - Unit III, Lecture 1 Nervous system organization	<a href="#">Lab quiz 5</a> No new lab, prepare for lecture midterm
Week 7	<a href="#">No lecture quiz, prepare for lab midterm</a> Unit III, Lecture 2 Action potential generation Unit III, Lecture 3 Action potential propagation Unit III, Lecture 4 Sensory receptor	<a href="#">Lab Midterm Exam</a> Lab 6 Musculoskeletal system, the Face
Week 8	<a href="#">Lecture quiz 5</a> Unit III, Lecture 5 Synapse Unit III, Lecture 6 Neurotransmitters. Neural circuits Unit IV, Lecture 1 Endocrine system organization	<a href="#">Lab quiz 6</a> Lab 7 Musculoskeletal system, the Cranium
Week 9	<a href="#">Lecture quiz 6</a> Unit IV, Lecture 2 Hypothalamus Unit IV, Lecture 3 Pituitary gland Unit IV, Lecture 4 Thyroid and parathyroid glands	<a href="#">Lab quiz 7</a> Lab 8 Musculoskeletal system, the Torso
Week 10	<a href="#">Lecture quiz 7</a> Unit IV, Lecture 5 Adrenal gland Unit IV, Lecture 6 Pancreas -	<a href="#">Lab Final Exam</a>
Finals week	<a href="#">Lecture Final Exam</a>	

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 2-5. Lab Final is on Labs 6-8.

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.