

Biol-2411-Human Anatomy and Physiology-Syllabus/Course Calendar

Course Information

Course Number: Biol-2411

Course Title: Human Anatomy I

Semester: Fall 2015

Class meeting: Online Daily

Class Location: Course located in D2L at... www.asurams.edu

Credit Semester Hours: 3

Lab

Class Meeting: Online Dailey

Credit Semester Hours: 1

Class Location: Course located in D2L at...www.asurams.edu

Course Objectives: BIOL 2411 is designed as an introduction course in Human Anatomy and Physiology. It is geared to students in the health-oriented, medical and biological programs. However, it may also be useful to premedical and pre dental students as well as Liberal Arts students

Instructor Contact Information

Instructor: Anthony Cooper

Office Location: Wiley 229

Office Hours: Monday, Wednesday, Friday 9:00am-2:00pm, Tuesday/Thursday 1:00pm-5:00pm

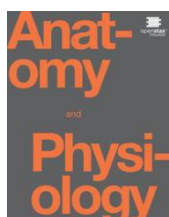
Office Phone: 229-430-0686

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Required Text: Lecture

You are not required to purchase a textbook for this course. A free online textbook has been provided for you in your D2L course. The free text is provided by Open Stax which allows for free online access to learning material. In addition, Hole's Human Anatomy and Physiology PDF textbook is also available for you to access. Both items are free. See image of free textbook below.

Located in D2L is a pdf of this free Human Anatomy Textbook is the primary text for this course:



<http://openstaxcollege.org/textbooks/anatomy-and-physiology/resources>

Free PDF of this textbook is also located in ASU D2LS.

TENTATIVE COURSE OUTLINE AND LEARNING OBJECTIVES

NOTE: This is a tentative outline of the material that will be covered.

Chapter Objectives:

Chapter objectives and Learning Outcome Questions are found at the beginning of each chapter. Students should read these objectives and complete the Learning Outcome Assignments carefully before attempting quizzes and/or exams. Students are also encouraged to read the review activities at the end of each chapter.

Subject

Introduction to the course

Attendance, introduction, and physiology of instruction and the course

Introduction to Human Anatomy and Physiology

Anatomy and Physiology
Characteristic of Life

Location in text

Syllabus

Chapter 1

Maintenance of Life

Levels of organism

Chemical Basis of Life

Introduction

Structure of matter

Chemical constituents of cells

Chapter 2

Cells

Introduction

A composite of cell

Movements through cell membrane

Life cycle of cells

Control of cell reproduction

Chapter 3

Cellular Metabolism

Introduction

Metabolic Processes

Control of Metabolic Reactions

Energy and Metabolic Reactions

Metabolic Pathway

Nucleic Acids and Protein Synthesis

Change in Genetic Information

Chapter 4

Tissue

Introduction

Epithelial Tissues

Chapter 5

Muscular Tissues
Nervous Tissues

Skin and the Integumentary System

Chapter 6

Introduction
Type of membrane
Skin and its tissue
Accessory organs of the skin
Regulation of body temperature
Skin color
Common skin disorder

Skeletal System

Chapter 7

Introduction
Bone structure
Bone development Function
of bones Organization of the
skeleton

Joints of the Skeletal System

Chapter 8

Introduction
Classification of joints
General Structures of a synovial joint
Types of synovial joints
Types of joint movements
Examples of synovial joints

Muscular Systems

Chapter 9

Introduction
Structure of a Skeletal Muscle
Skeletal Muscle contraction
Muscular response
Smooth Muscles
Cardiac Muscle
Skeletal Muscle Actions

Nervous System I : Basic Structure and Function

Chapter 10

General Function of the Nervous System
Nervous Tissue
Cell membrane potential
The synapse
Processing impulses
Classification of Neurons and Nerve Fibers
Nerve Pathways

Nervous System II: Division of the N.S.

Chapter 11

Introduction
Meninges
Spinal cord

Brian
Peripheral Nervous System
Autonomic Nervous System

Somatic and Special Senses

Introduction

Receptors and Sensations

Somatic sense

Special senses

Sense of smell

Sense of taste

Sense of hearing

Sense of equilibrium

Sense of sight

Chapter 12

LABORATORY EXERCISES

Instructor will provide all learning material needed to complete the lab assignments. This may include online assignments as well as in class hand-outs.

Body Direction/Cell/Microscope:

-study organ location, body directional orientation, review parts of the cell, and review Microscope function

Human Tissue

-study the location and function of the different types of body tissues

Skull and Human Skeletal

-Identified the function and location Human Bones

Human Muscles

-Identify the location and function of Human Muscles

Cat Muscles

-Compare and contrast the function and location of Human Muscles to Cat Muscles

Nerves and Body Function

-Study the parts of the Brain and Spinal Cord, Cranial Nerves, CNS and PNS

COURSE CALENDAR:

The Tentative Course Calendar contains the due dates for all Quizzes, Assignments and Exams.

Quizzes, Exams, Assignments

Chapters	Source-Study Material	Quiz/Exam Dates
-Chapter 1: Introduction to the Human Body -Chapter 2: The Chemical Level of Organization	<p>OpenStax Textbook: Pages 15-69</p> <p>The Biology Corner: Chapter-1-Introduction to Anatomy</p> <p>YouTube Education: Introduction to Human Anatomy and Physiology-1-The Human Body: An Orientation-Flashcards, Anatomical Terminology-Abdominopelvic regions and quadrants</p> <p>Hole's Human Anatomy online text book Companion site: Learning Outcome Questions Chapter 1 and 2</p> <p>Khan Academy Video: Introduction to Atoms, Electron Structure, Chemical Bonds</p>	August 30-Lecture Exam Chapters 1 and 2 September 7-Lab Quiz-Body Organization
-Chapter 3: Cellular Level of Organization -Chapter 4: The Tissue Level of Organization	<p>OpenStax Textbook: Pages 91-174</p> <p>The Biology Corner: Chapter-3-Cells and Chapter-4-Tissues</p> <p>Khan Academy: Parts of the Cell, The Nucleus, Mitochondria, Diffusion and Osmosis.</p> <p>YouTube Education video: Introduction to Anatomy & Physiology: Levels of Organization (01:03)</p> <p>Hole's Human Anatomy online text book Companion site: Learning Outcome Questions Chapter 3 and Chapter 4</p> <p>Khan Academy Video: Epithelial and Connective Tissues</p> <p>Merlot II: A/P-A web site for Human Anatomy and Physiology</p>	November 14-Lecture Exam Chapters 3 and 4 September 21-Lab Quiz-Tissues
-Chapter 5 The Integumentary System -Chapter 6 Bone and Skeletal Tissue	<p>OpenStax Textbook: Pages 175-242</p>	October 4-Lecture Exam Chapters 5 and 6

	<p>The Biology Corner: Chapter 7-Skeletal</p> <p>YouTube Education video: The four types of Tissues, Anatomy and Physiology Help: Chapter 4 Tissues, What is skin? The layers of human skin</p> <p>Hole's Human Anatomy online text book Companion site: Learning Outcome Questions Chapter 6 and Chapter 7</p>	October 5-Lab Quiz-Skeletal System
<p>-Chapter 7 The Axial Skeleton</p> <p>-Chapter 8 The Appendicular Skeleton</p>	<p>OpenStax Textbook: Pages 243-325</p> <p>Anatomy zone: Musculoskeletal</p> <p>The Biology Corner: Chapter-7-Skeletal</p> <p>YouTube Education: Skeletal and Bone anatomy physiology, Skeletal System structure and function</p> <p>Hole's Human Anatomy online text book Companion site: Learning Outcome Questions Chapter 7 and Chapter 8</p>	October 25-Lecture Exam Chapters 7 and 8
<p>-Chapter 9 Joints</p> <p>-Chapter 10 Muscle Tissue</p> <p>- Chapter 11 The Muscular System</p>	<p>OpenStax Textbook: Pages 337-456</p> <p>The Biology Corner: Chapter 7-Skeletal and Chapter-8-Muscular</p> <p>Anatomy zone: Musculoskeletal</p> <p>Hole's Human Anatomy online text book Companion site: Learning Outcome Questions Chapter 8 and Chapter 9</p> <p>YouTube Education: The Skeletal System: Skeletal Joints, The 6 Types of Joints-Human Anatomy for Artists, Anatomy And Physiology of Muscular System, Anatomy of the Human Body 1</p> <p>Khan Academy: The types of Muscles, Heart Cells up Close, Myosin and Actin, Tropomyosin and Troponin and their role in regulating muscle contraction</p>	<p>November 15-Lecture Exam Chapters 9,10 and 11</p> <p>November 9-Lab Quiz-Human Muscles</p>
<p>-Chapter 12 Introduction to the Nervous System</p> <p>-Chapter 13 The Anatomy of the Nervous System</p> <p>-Chapter 14 The Somatic Nervous System</p> <p>-Chapter 15 The Autonomic Nervous System</p>	<p>OpenStax Textbook: Pages 491-493,541-548,570-595, 622-645</p> <p>The Biology Corner: Chapter -9-Nervous System and Chapter-10-Senses</p> <p>Hole's Human Anatomy online text book Companion site: Learning Outcome Questions Chapter 10, Chapter 11, and Chapter 12</p> <p>YouTube Education: Nervous System: Anatomy and Physiology Lectures</p>	<p>November 29 Lecture Exam Chapters 12,13,14 and 15</p> <p>November 22-Lab Quiz-Nerves System</p> <p>Final Exam-December 18</p>

	Biol-2412	
-Chapter 17 Endocrine System -Chapter 18 Blood	OpenStax Textbook ; Pages 696-836, Hole's Human Anatomy online text book Companion site ; Learning Outcome Questions Chapter 13 and Chapter 14 and Quiz	August 30-Lecture Exam Chapters 17 and 18 September 7-Lab Quiz Endocrine/Blood
-Chapter 19 The Heart -Chapter 20 Blood Vessel Circulation	OpenStax Textbook ; Pages 787-850, Hole's Human Anatomy online text book Companion site ; Learning Outcome Questions Chapter 14 and Chapter 15 and Quiz	November 14-Lecture Exam Chapters 19 and 20 September 21-Lab Quiz-Heart and Vessels
-Chapter 21 Lymphatic/Immune System -Chapter 22 Respiratory System	OpenStax Textbook ; Pages 926-1022, Hole's Human Anatomy online text book Companion site ; Learning Outcome Questions Chapter 16 and Chapter 19 and Quiz	October 4-Lecture Exam Chapters 21 and 22 October 5-Lab Quiz-Lymphatic/Respiratory
-Chapter 23 Digestive System -Chapter 24 Metabolism/Nutrition	OpenStax Textbook ; Pages 1036-1082 Hole's Human Anatomy online text book Companion site ; Learning Outcome Questions Chapter 17 and Chapter 18 and Quiz	October 25-Lecture Exam Chapters 23 and 24 October 26-Lab Quiz Digestion-Metabolism
-Chapter 25 Urinary System -Chapter 26 Reproduction/Pregnancy	OpenStax Textbook ; Pages 1146-1182, Hole's Human Anatomy online text book Companion site ; Learning Outcome Questions Chapter 17 and Chapter 18 and Quiz	November 15-Lecture Exam Chapters 25 and 26 November 9-Lab Quiz-Urinary-Reproduction

List of Resources

Title	Author	Creative Commons	URL
Anatomy and Physiology	Open Stax College	<i>Anatomy and Physiology</i> by OpenStax College is licensed under a Creative Commons Attribution-NonCommercial 3.0 United States License	https://openstaxcollege.org/textbooks/anatomy-and-physiology
Human Anatomy	Khan Academy	Shared Publicly	https://www.khanacademy.org/
The Biology Corner	Shannan Muskopf	Work is licensed under a Creative Commons Attribution-Noncommercial 3.0 United States License	http://www.biologycorner.com/
Hole's Human Anatomy online text book Companion site	McGraw-Hill	All Rights Reserved	http://highered.mheducation.com/sites/0073378275/student_view0/index.html
Introduction to Anatomy	Youtube	Shared	https://www.youtube.com/results?search_query=Introduction+body+quadrants
Anatomy Zone	Peter de Souza and Jack Hurley.	Shared	http://bioweb.uwlax.edu/APIab/Index.htm
MERLOT II	UW-L	Creative common	http://www.merlot.org/merlot/index.htm
McGraw-Hill Virtual Lab	McGraw-Hill	All Rights Reserved	http://mhhe.com/biosci/genbio/virtual_labs/
Onlinelabs.in	Onlinelabs.in	All Rights Reserved	http://onlinelabs.in/anatomy
Anatomy & Physiology- Coloring Workbook Complete Study Guide	Eleaine N. Marieb	All Rights Reserved	www.pearsonhigher.com