



## Course Information

### Anatomy with Lab

NR.110. 204 ( 4.0 Credits )

#### **Description**

This course will introduce components and structures of the human body at the level of gross and microscopic anatomy. Students will learn organ localization in the body and structural features comprising the different body systems. The body systems covered will include the skin, heart, lungs, and brain, among others. Upon completion, students will have an understanding of normal healthy anatomy that will prepare them for professional health programs. This course includes a virtual laboratory component designed to complement lecture topics. For textbook information: <http://nursing.jhu.edu/academics/programs/prerequisites/prerequisite-textbooks>

---

**Department:** NR PP

**College:** School of Nursing

## Course Learning Objectives

### Course Learning Outcomes (CLOs):

CLO1 Define the body orientation terms, including planes of section, directional terms, body regions, pleura and pericardium and organ systems.

CLO2 Identify human body systems and major organs located in each system.

CLO3 Describe the general anatomical structures and their locations associated with each body system.

CLO4 Recognize the various layers and normal histology of the integumentary system.

CLO5 List key components of the skeletal and muscular systems.

CLO6 Describe the anatomical features of the cardiovascular and respiratory systems.

CLO7 Detail the important anatomy of the brain and head.

CLO8 identify the gross anatomical structures of the digestive, urinary, and reproductive systems.

## Required Text and Other Materials

### Required Textbooks and Course Materials:

Saladin, K. S. (2020). *Anatomy & Physiology: The unity of form and function (9th ed.)*. New York, NY: McGraw-Hill Higher Education.

Broyles, R.B. (2020). *Workbook to accompany Anatomy & Physiology Revealed 4.0*. New York, NY: McGraw-Hill Higher Education.

*Access to McGraw-Hill Connect Plus with LearnSmart/LearnSmart Labs:* Students must purchase access code to Connect Plus in order to access the assessment items and other learning materials for this course. Please do not purchase from any 3rd party vendor before reviewing the information presented in the Canvas course site.

*Access to Anatomy & Physiology Revealed 4.0 (APR):* This program will be used mainly for the lab portion of the course. Access to APR is included in McGraw-Hill Connect Plus described above. You do not need to purchase a separate access card for this program.

*Access to a reliable computer and internet connection:* It is recommended that students using Windows- based computers should have the Windows 7 or newer operating system, and that Mac users have OS 10.6 or later. We also recommend that you use the most updated version of either Mozilla Firefox or Google Chrome as your web browser for this course. Other operating systems and web browsers may not be fully supported by the Canvas or McGraw Hill Connect. Please see the Canvas course site and for detailed system requirements.

## Summary of Learning Assessments/Assignments

### Assessment Summary:

<b>LEARNING ASSESSMENT/ ASSIGNMENT</b>	<b>COURSE OBJECTIVES ADDRESSED</b>	<b>WEIGHT TOWARD FINAL COURSE GRADE</b>	<b>DUE DATE</b>
Module Graded Quizzes, 10 quizzes in total (50pts each)	1, 2, 3, 4, 5, 6, 7, 8	15%	Dates vary See Course Schedule

<b>LEARNING ASSESSMENT/ ASSIGNMENT</b>	<b>COURSE OBJECTIVES ADDRESSED</b>	<b>WEIGHT TOWARD FINAL COURSE GRADE</b>	<b>DUE DATE</b>
Module Post-Lab Quizzes, 10 quizzes in total (50pts each)	1, 2, 3, 4, 5, 6, 7, 8	15%	Dates vary See Course Schedule
APR Assignments, 10 labs in total (100pts each)	1, 2, 3, 4, 5, 6, 7, 8	15%	Dates vary See Course Schedule
Discussion Board, 5 posts in total (10pts each)	1, 2, 3, 4, 5, 6, 7, 8	15%	Dates vary See Course Schedule
Exams, 3 in total (100pts each)	1, 2, 3, 4, 5, 6, 7, 8	40%	Dates vary See Course Schedule

## Learning Assessments/Assignments

### Learning Assessments/Assignments:

#### Graded Module Quizzes

These are timed quizzes that are designed to test your mastery of the material covered in each module and keep you on track in your reading. The quizzes are open book and open notes. One attempt is allowed for each quiz. There are 10 graded quizzes in total in this course. You will find these quizzes under the "Assessment" section of each module.

#### Lab Sessions

Weekly lab sessions will be done mainly via Anatomy and Physiology Revealed. You are required to complete the lab procedures, submit APR assignment and post-lab quiz via Canvas for each module, from Module 1 to Module 10. An average of 60% must be achieved in the lab component of the course in order to for you to pass the course.

#### Discussion Boards

Weekly discussions can be accessed from the "Discussion Board" link on the left-side menu of the course site, or from within each module. There are 5 discussion board assignments for this course. Additionally, there is an optional discussion board for lab sessions.

## Exams

There are three exams consisting of multiple choice and short answer questions. They are open book, open notes and timed. Only one attempt is allowed for each exam. There are no makeup exams.

Optional Learning Activities Throughout the course, you will find Knowledge Check activities after each recorded lecture and Practice quizzes under the section in each module. In addition, SmartBook readings are also available if you prefer to read the textbook online. The Knowledge Check, Practice quizzes and SmartBook reading assignments provide self-assessment of the information presented in the lectures and the textbook and are not graded or counted towards your final course grade.

## Evaluation and Grading

### Grading Scale:

RANGE	LETTER GRADE	GRADE POINT
97 -100	A+	4.0
93- 96	A	4.0
90 -92	A-	3.7
87 - 89	B+	3.3
83 - 86	B	3.0
80 - 82	B-	2.7
77 -79	C+	2.3
73 -76	C	2.0
70 -72	C-	1.7
67- 69	D+	1.3

63 - 66	D	1.0
60 - 62	D-	0.7
<60	F	0

## Course Schedule

### Course Schedule:

Module	Module Subtopics	Learning Activities, Formative Assessment & Resources	Evaluative Assessment
<b>Welcome Start Here</b>	<ul style="list-style-type: none"> <li>Getting Started</li> </ul>	Familiarize yourself with Canvas	Discussion Board: Introduce Yourself Avoiding Plagiarism Module
<b>Module 1: Introduction to Human Anatomy &amp; Integumentary System</b>	<ul style="list-style-type: none"> <li>Skin and subcutaneous Tissue</li> <li>Hair and Nails</li> <li>Cutaneous glands</li> <li>Skin disorders</li> </ul>	Saladin, K. S. (2020). <i>The unity of form and function (9th ed.)</i> . New York, NY: McGraw-Hill Higher Education. <ul style="list-style-type: none"> <li>Atlas A: General Orientation to Human Anatomy</li> <li>Chapter 6: The Integumentary System</li> </ul> Review the lecture materials posted in the module for this week.	Module 1 Graded Quiz Module 1 Lab Exercises & Anatomy & Physiology Revealed APR Assignment Module 1 Post-Lab Quiz

Module	Module Subtopics	Learning Activities, Formative Assessment & Resources	Evaluative Assessment
<p><b>Module 2: Skeletal System I</b></p>	<p>Tissues and organs</p> <ul style="list-style-type: none"> <li>· Osseous Tissue</li> <li>· Bone development</li> </ul>	<p>Saladin, K. S. (2020). <i>The unity of form and function (9th ed.)</i>. New York, NY: McGraw-Hill Higher Education.</p> <ul style="list-style-type: none"> <li>· Chapter 7: Bone Tissue</li> <li>· Chapter 8: The Skeletal System</li> </ul> <p>Review the lecture materials posted in the module for this week.</p>	<p>Module 2 Graded Quiz</p> <p>Module 2 Lab Exercises &amp; Physiology Revealed APR Assignment</p> <p>Module 2 Post-Lab Quiz</p>
<p><b>Module 3: Skeletal System II &amp; Muscular System I</b></p>	<ul style="list-style-type: none"> <li>· Cytoskeletal fibers</li> </ul>	<p>Saladin, K. S. (2020). <i>The unity of form and function (9th ed.)</i>. New York, NY: McGraw-Hill Higher Education.</p> <ul style="list-style-type: none"> <li>· Chapter 8: The Skeletal System</li> <li>· Chapter 9: Joints</li> <li>· Chapter 11: Muscular Tissue</li> </ul> <p>Review the lecture materials posted in the module for this week.</p>	<p>Module 3 Graded Quiz</p> <p>Module 3 Discussion Board</p> <p>Module 3 Lab Exercises &amp; Physiology Revealed APR Assignment</p> <p>Module 3 Post-Lab Quiz</p>

Module	Module Subtopics	Learning Activities, Formative Assessment & Resources	Evaluative Assessment
<b>Module 4: Muscular System II</b>	<ul style="list-style-type: none"> <li>· Synovial joints</li> <li>· Diarthroses</li> <li>· Skeletal muscle</li> <li>· Nerves</li> </ul>	<p>Saladin, K. S. (2020). <i>The unity of form and function (9th ed.)</i>. New York, NY: McGraw-Hill Higher Education.</p> <ul style="list-style-type: none"> <li>• Chapter 5: Histology</li> <li>• Chapter 10: The Muscular System</li> <li>• Chapter 11: Muscular Tissue</li> </ul> <p>Review the lecture materials posted in the module for this week.</p>	<p>Module 4 Graded Quiz</p> <p>Module 4 Discussion Board</p> <p>Module 4 Lab Exercises &amp; Physiology Revealed APR Assignment</p> <p>Module 4 Post-Lab Quiz</p>
<b>Exam 1</b>	None	Review content in Module 1 through Module 4	
<b>Module 5: Cardiovascular System</b>	<ul style="list-style-type: none"> <li>· Cardiac conduction system</li> <li>· Electrical and contractile activity</li> <li>· Cardiac cycle and output</li> </ul>	<p>Saladin, K. S. (2020). <i>The unity of form and function (9th ed.)</i>. New York, NY: McGraw-Hill Higher Education.</p> <ul style="list-style-type: none"> <li>• Chapter 19: The Circulatory System: Heart</li> </ul> <p>Review the lecture materials posted in the module for this week.</p>	<p>Module 5 Graded Quiz</p> <p>Module 5 Discussion Board</p> <p>Module 5 Lab Exercises &amp; Physiology Revealed APR Assignment</p> <p>Module 5 Post-Lab Quiz</p>

<b>Module</b>	<b>Module Subtopics</b>	<b>Learning Activities, Formative Assessment &amp; Resources</b>	<b>Evaluative Assessment</b>
<b>Module 6: Respiratory System</b>	<ul style="list-style-type: none"> <li>· Pulmonary ventilation</li> <li>· Gas exchange and transport</li> <li>· Respiratory disorders</li> </ul>	<p>Saladin, K. S. (2020). <i>The unity of form and function (9th ed.)</i>. New York, NY: McGraw-Hill Higher Education.</p> <ul style="list-style-type: none"> <li>· Chapter 22: The Respiratory System</li> </ul> <p>Review the lecture materials posted in the module for this week.</p>	<p>Module 6 Graded Quiz</p> <p>Module 6 Lab Exercises &amp; Physiology Revealed APR Assignment</p> <p>Module 6 Post-Lab Quiz</p>
<b>Module 7: Cranial System (Brain &amp; head)</b>	<ul style="list-style-type: none"> <li>· Forebrain, hindbrain, and midbrain</li> <li>· Cranial nerves</li> </ul>	<p>Saladin, K. S. (2020). <i>The unity of form and function (9th ed.)</i>. New York, NY: McGraw-Hill Higher Education.</p> <ul style="list-style-type: none"> <li>· Chapter 14: The Brain and Cranial Nerves</li> </ul> <p>Review the lecture materials posted in the module for this week.</p>	<p>Module 7 Graded Quiz</p> <p>Module 7 Discussion Board</p> <p>Module 7 Lab Exercises &amp; Physiology Revealed APR Assignment</p> <p>Module 7 Post-Lab Quiz</p>
<b>Exam 2</b>	None	Review content in Module 5 through Module 7	



<b>Module</b>	<b>Module Subtopics</b>	<b>Learning Activities, Formative Assessment &amp; Resources</b>	<b>Evaluative Assessment</b>
<b>Module 8: Digestive System</b>	· Chemical digestion and absorption	<p>Saladin, K. S. (2020). <i>The unity of form and function (9th ed.)</i>. New York, NY: McGraw-Hill Higher Education.</p> <p>· Chapter 25: The Digestive System</p> <p>Review the lecture materials posted in the module for this week.</p>	<p>Module 8 Graded Quiz</p> <p>Module 8 Discussion Board</p> <p>Module 8 Lab Exercises &amp; Physiology Revealed APR Assignment</p> <p>Module 8 Post-Lab Quiz</p>
<b>Module 9: Urinary System</b>	· Urine and renal function tests	<p>Saladin, K. S. (2020). <i>The unity of form and function (9th ed.)</i>. New York, NY: McGraw-Hill Higher Education.</p> <p>· Chapter 23: The Urinary System</p> <p>Review the lecture materials posted in the module for this week.</p>	<p>Module 9 Graded Quiz</p> <p>Module 9 Lab Exercises &amp; Physiology Revealed APR Assignment</p> <p>Module 9 Post-Lab Quiz</p>

<b>Module</b>	<b>Module Subtopics</b>	<b>Learning Activities, Formative Assessment &amp; Resources</b>	<b>Evaluative Assessment</b>
<b>Module 10: Reproductive System</b>	<ul style="list-style-type: none"> <li>· Puberty</li> <li>· Sexual response</li> </ul>	<p>Saladin, K. S. (2020). <i>The unity of form and function (9th ed.)</i>. New York, NY: McGraw-Hill Higher Education.</p> <ul style="list-style-type: none"> <li>· Chapter 27: The Male Reproductive System</li> <li>· Chapter 28: The Female Reproductive System</li> </ul> <p>Review the lecture materials posted in the module for this week.</p>	<p>Module 10 Graded Quiz</p> <p>Module 10 Lab Exercises &amp; Physiology Revealed APR Assignment</p> <p>Module 10 Post-Lab Quiz</p>
<b>Exam 3</b>	None	Review content in Module 8 through Module 10	