Arizona State University Online BIO 201 - Human Anatomy & Physiology I Lecture and Laboratory (4 credits)

Faculty

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Catalog Description

Biology 201 is the study of structure and function of the human body. Topics include: Surface Anatomy, Chemistry, Cells, Genetics, Histology, Integumentary System, Skeletal System, Joints, Muscular System, Central/Peripheral/Autonomic Nervous Systems and Sense Organs.

Course Overview

BIO 201 is the first course in a two-part series. BIO 201 reviews basic biology and chemistry, and then leads into some of the major body systems: Integumentary, Skeletal, Muscular and Nervous. The course is comprised of both lecture and lab. Please be aware that some BIO 201 course content may be considered sensitive - including, but not limited to graphic images of the human body.

Learning Outcomes

At the completion of this course, students will be able to:

- Apply the Scientific Method
- Describe and apply anatomical terminology
- Describe the composition and organization of carbohydrates, lipids, proteins and nucleic acids and explain the biological role of each.
- Describe the structure and function of cellular organelles
- Outline the movement of materials across a plasma membrane.
- Distinguish and describe the histology, location and function of major tissue types.
- Describe the structure and function of the integumentary system.
- Describe the structure and function of the skeletal system.
- Describe the structure and function of the muscular system.
- Describe the structure and function of the nervous system.
- Describe the structure and function of the sense organs.
- Define homeostasis and explain specific examples for the integumentary, skeletal, muscular, and nervous systems.

Course Materials

1. **Textbook**: Anatomy & Physiology: The Unity of Form and Function by Kenneth Saladin, 7th edition, McGraw-Hill

A hardcopy of the textbook can be purchased from a variety of online vendors, or you may just use the e-book, which is already bundled with the web materials (see below). You may also use a 5th or 6th edition hardcopy of the text to save some \$. If you use an older edition of the text, you will still need 7th edition Connect Access (see below).

2. Connect Website: McGraw-Hill Connect for Saladin 7e

The majority of your course assignments will be completed through Connect. To purchase access, or register, just click the "Connect Assignments" tab to the left, or access Connect under any weekly heading. Purchasing Connect gives you access to the materials for two semesters. That means you pay once for both BIO 201 and 202!

- Anatomy & Physiology Revealed (APR) this is interactive, virtual cadaver dissection software through McGraw-Hill, and it is amazing! Access to APR is <u>included</u> with your purchase of Connect, and will be accessed through the Connect website. There is no additional charge for APR.
- 4. LearnSmart Labs these are virtual anatomy and physiology labs. Access to Learnsmart Labs is <u>included</u> with your purchase of Connect, and will be accessed through the Connect website. There is no additional charge for Learnsmart Labs.
- Lab Dissection Kit this kit will include biological specimens for hands-on dissection. Purchase the BIO 201 kit at www.Sterlexlabs.com. If you will also be taking BIO 202, you can save some money by purchasing the BIO 201/202 combo kit, rather than purchasing the two kits separately.

Course Topics, Schedule, & Grading

Activities used for instruction and assessment of learning include: discussion/presentations; textbook and supplemental readings; individual and group activities/assignments; hands-on dissections and case scenarios.

Grading

Grade	Percentage	Points Range
А	90 – 100%	900-1000 points
В	80 - 89%	800-899 points
С	70 – 79%	700-799 points
D	60 – 69%	600-699 points
E/F	Below 60%	599 and below

Grading Procedure

Grades reflect your performance on assignments and adherence to deadlines. Most graded assignments will be available within 72 hours of the due date via the Gradebook or in Connect. Lab quizzes and lab practical exams contain numerous fill-in-the-blank questions which must be hand-graded. Lab Report grades will be available within two weeks of the due date.

All weekly assignments are due at 11:59 PM Arizona time on Sunday of each week. There is a 24 hour grace period for completion of assignments, therefore the final weekly deadline is 11:59 PM Arizona time on Monday each week. This grace period is to be used in cases of emergency. If an unavoidable issue occurs over the weekend, you may use Monday to complete assignments. If you choose to put off assignments until Monday and then experience any personal or technical issues, please be aware that you may not have enough time to fix the situation and deadlines for due dates will NOT be extended for any reason. DO NOT schedule exams during the Monday grace period. If technical issues arise with an exam, accommodations can be made to take the exam during the grace period, but you should never initially schedule an exam during that period of time.

Proctored Exams

Due to the nature and importance of the subject matter, all lecture and lab exams for BIO 201 will be Proctored through ProctorU. No notes will be permitted. There are four lecture exams and two lab practical exams. There may be an additional fee for this service - ASU Online has picked up the costs for the proctored exams in the past, but this is not a guaranteed every semester. On average, you can expect to pay around \$120 in total. Please go to www.ProctorU.com for more information. For all exams you will need to be in a secure environment and your computer will have to be equipped with a functioning camera and microphone. You are not permitted to take exams in a public place, in the presence of other people, in a vehicle, etc.

Communicating With the Instructor

This course uses a discussion board called "Hallway Conversations" for general questions about the course. Prior to posting a question, please check the syllabus, announcements, FAQ document and existing posts. If you do not find an answer, post your question. You are encouraged to respond to the questions of your classmates. Students must maintain a cordial atmosphere and use tact in hallway conversations. Inappropriate, negative or rude posts may be deleted by the instructor.

Email questions of a personal nature to your instructor (Delon.Washo@asu.edu). You can expect a response within 24 hours.

Address any Connect/Learnsmart lab technical issues to McGraw-Hill Tech Support at 1-855-423-9041 (always tell the technician that you access Connect/LearnSmart Labs through Blackboard)

Online Course

This is an online course. There are no face-to-face meetings.

Email and Internet

ASU email is an official means of communication among students, faculty, and staff. Students are expected to read and act upon email in a timely fashion. Students bear the responsibility of missed messages and should check their ASU-assigned email regularly.

All instructor correspondence will be sent to your ASU email account.

Course Time Commitment

This four-credit, lab-based course requires approximately 20-25 hours of work each week. Some students may spend more time, and some may spend less. Please budget your time each week. It is recommended that you spend time each day reading assignments, watching lectures and completing lecture and lab assignments. If you save all of your work until the weekend, you likely will not have time to effectively learn the material and complete assignments.

Late or Missed Assignments

No late assignments will be accepted! The online forum requires the use of technology, and sometimes students may experience technological issues. Students will not be granted any extensions for assignments due to technical issues, therefore it is strongly recommended that all assignments are completed and submitted 24 hours <u>prior</u> to the final due date/time. Published assignment due dates (Arizona time) are firm. Please follow the appropriate University policies to request an accommodation for religious practices or to accommodate a missed assignment due to University-sanctioned activities. Since you are allotted the entire week to complete most assignments, no extensions will be granted for missed work due to religious practices, holidays or University-sanctioned activities.

Due to the accelerated nature of an online course, extended absences are not permitted. Students will need to withdraw from the course for absences that will cause a student to miss a week or more of assignments.

Submitting Assignments

All assignments, unless otherwise announced, MUST be submitted to the designated area of Blackboard. Do not submit an assignment via email.

Drop and Add Dates/Withdrawals

This course adheres to a compressed schedule and may be part of a sequenced program, therefore, there is a limited timeline to drop or add the course. Consult with your advisor and notify your instructor to add or drop this course. If you are considering a withdrawal, review the following ASU policies: Withdrawal from Classes, Medical/Compassionate Withdrawal, and a Grade of Incomplete.

Grade Appeals

You must contact your TA or instructor within one week of a grade posting if you want to dispute any question/grade on an assignment, quiz or exam. You must provide the question and a statement of what the issue is, or why you believe that your answer was correct for each disputed question. Final course grade disputes must first be addressed by discussing the situation with the instructor. If the dispute is not resolved with the instructor, the student may appeal to the department chair per University Policy for Student Appeal Procedures on Grades.

Student Conduct and Academic Integrity

ASU expects and requires its students to act with honesty, integrity, and respect. Required behavior standards are listed in the Student Code of Conduct and Student Disciplinary Procedures, Computer, Internet, and Electronic Communications policy, ASU Student Academic Integrity Policy, and outlined by the Office of Student Rights & Responsibilities. Anyone in violation of these policies is subject to sanctions.

ACADEMIC DISHONESTY - Cheating, including but not limited to copying another student's work and plagiarism of published literature, will not be tolerated. Academic honesty is expected of all students in all examinations, papers, and laboratory work, academic transactions and records. The possible sanctions include, but are not limited to, appropriate grade penalties, course failure (indicated on the transcript as a grade of E), course failure due to academic dishonesty (indicated on the transcript as a grade of XE), loss of registration privileges, disqualification and dismissal. For more info, see http://provost.asu.edu/academicintegrity DO NOT even give the appearance that you may be cheating on an exam. You could fail the course if you have any notes, materials or electronics out during an exam.

Students are entitled to receive instruction free from interference by other members of the class. An instructor may withdraw a student from the course when the student's behavior disrupts the educational process per Instructor Withdrawal of a Student for Disruptive Classroom Behavior.

Appropriate online behavior (also known as netiquette) is defined by the instructor and includes keeping course discussion posts focused on the assigned topics. Students must maintain a cordial atmosphere and use tact in expressing differences of opinion. Inappropriate discussion board posts may be deleted by the instructor.

The Office of Student Rights and Responsibilities accepts incident reports from students, faculty, staff, or other persons who believe that a student or a student organization may have violated the Student Code of Conduct. Prohibition of Commercial Note Taking Services

In accordance with ACD 304-06 Commercial Note Taking Services, written permission must be secured from the official instructor of the class in order to sell the instructor's oral communication in the form of notes. Notes must have the notetaker's name as well as the instructor's name, the course number, and the date.

Course Evaluation

Students are expected to complete the course evaluation. The feedback provides valuable information to the instructor and the college and is used to improve student learning. Students are notified when the online evaluation form is available. Syllabus Disclaimer

The syllabus is a statement of intent and serves as an implicit agreement between the instructor and the student. Every effort will be made to avoid changing the course schedule but the possibility exists that unforeseen events will make syllabus changes necessary. Please remember to check your ASU email and the course site often.

Accessibility Statement

In compliance with the Rehabilitation Act of 1973, Section 504, and the Americans with Disabilities Act of 1990, professional disability specialists and support staff at the Disability Resource Center (DRC) facilitate a comprehensive range of academic support services and accommodations for qualified students with disabilities.

Qualified students with disabilities may be eligible to receive academic support services and accommodations. Eligibility is based on qualifying disability documentation and assessment of individual need. Students who believe they have a current and essential need for disability accommodations are responsible for requesting accommodations and providing qualifying documentation to the DRC. Every effort is made to provide reasonable accommodations for qualified students with disabilities.

Qualified students who wish to request an accommodation for a disability should contact their campus DRC.

- Tempe Campus <u>http://www.asu.edu/studentaffairs/ed/drc/</u> 480-965-1234 (Voice); 480-965-9000 (TTY)
- Polytechnic Campus http://www.asu.edu/studentaffairs/ed/drc/ 480-727-1165 (Voice); 480-727-1009 (TTY)
- West Campus http://www.west.asu.edu/drc/ University Center Building (UCB), Room 130; 602-543-8145 (Voice)
- Downtown Phoenix Campus and ASU Online http://campus.asu.edu/downtown/DRC University Center Building, Suite 160; 602-496-4321 (Voice); 602-496-0378 (TTY)

Computer Requirements

This course requires a computer with Internet access and the following:

- A web browser (Chrome, Internet Explorer, Mozilla Firefox, or Safari)
- Adobe Acrobat Reader (free)
- Adobe Flash Player (free)
- Microphone, webcam and speaker

Technical Support

This course uses Blackboard to deliver content. It can be accessed through MyASU at http://my.asu.edu or the Blackboard home page at https://myasucourses.asu.edu

To monitor the status of campus networks and services, visit the System Health Portal at http://syshealth.asu.edu/.

To contact the help desk call toll-free at 1-855-278-5080.

Student Success

This is an online course. To be successful:

- check the course daily
- read announcements
- read and respond to course email messages as needed
- complete assignments by the due dates specified
- communicate regularly with your instructor and peers
- create a study and/or assignment schedule to stay on track

*Please see next page for a sample schedule. Please be aware that the schedule is a sample only. It may vary each semester, so please print the semester course schedule for your specific class once blackboard becomes available.

Course Schedule

All assignments are due at **11:59PM Arizona time on Sunday** of each week. There is a 24 hour grace period for completion of assignments, therefore the final weekly deadline is 11:59PM on Monday each week. This grace period is to be used in cases of emergency. If an unavoidable issue occurs over the weekend, you may use Monday to complete assignments. If you choose to put off assignments until Monday and then experience any issues, please be aware that you may not have enough time to fix the situation and deadlines for due dates will <u>NOT</u> be extended for any reason. You should <u>NEVER</u> schedule an exam to be taken on Monday! Too many technical issues can arise in an online course and you do not want to take the chance of receiving a zero on an exam.

WEEK	TOPICS	ACTIVITIES/ASSIGNMENTS	POINTS
WEEK 1 8/20-8/23	Introduction	Syllabus Quiz in Blackboard Discussion topic in Blackboard (Week 1 homepage)	5 5
	Lecture: Chapter 1 Introduction	Chapter 1 Worksheet in Connect Chapter 1 Learnsmart (LS1) in Connect Chapter 1 Quiz in Connect	10 4 ec 10
	Lab: Language of Anatomy	Language of Anatomy Worksheet in Connect Language of Anatomy Quiz in Blackboard	10 10
	Lab: Scientific Method	LearnSmart Labs - Scientific Method in Connect	10
	Lecture: Chapter 2 Chemistry of Life	Chapter 2 Worksheet in Connect Chapter 2 Learnsmart (LS2) in Connect Chapter 2 Quiz in Connect	10 4 ec 10
WEEK 2 8/23-8/30	Lecture: Chapter 3 Cells	Chapter 3 Worksheet in Connect Chapter 3 Learnsmart (LS3) in Connect Chapter 3 Quiz in Connect	10 4 ec 10
	Lab: Membrane Transport	LearnSmart Labs – Diffusion in Connect LearnSmart Labs – Osmosis in Connect	5 5
	Lab: Enzymes	LearnSmart Labs – Enzymes in Connect	10
	Lecture: Chapter 5 Histology	Chapter 5 Worksheet in Connect Chapter 5 Learnsmart (LS5) in Connect Chapter 5 Quiz in Connect	10 4 ec 10
	Lab: Histology	Histology Worksheet in Connect Histology Quiz in Blackboard (Don't miss this lab quiz located in blackboard!)	10 10

WEEK 3 8/30-9/6	Lecture Exam 1	Introduction (Chapter 1), Atlas A, Chemistry (Chapter 2), Cells (Chapter 3), Histology (Chapter 5) - PROCTORED	100
	Lecture: Chapter 6 Integumentary	Chapter 6 Worksheet in Connect Chapter 6 Learnsmart (LS6) in Connect Chapter 6 Quiz in Connect	10 4 ec 10
	Lab: Skeletal System	Skeletal System Worksheet in Connect Chapter 8 Learnsmart (LS8) in Connect Skeletal System Quiz in Connect **Start the skeletal lab this week, but assignments are not due until the end of week 4. This lab is long and material is included on next week's lab practical exam. You want to get most of it done this week**	
WEEK 4 9/6-9/13	Lecture: Chapter 7 Bone Tissue	Chapter 7 Worksheet in Connect Chapter 7 Learnsmart (LS7) in Connect Chapter 7 Quiz in Connect	10 4 ec 10
	Lecture: Chapter 9 Joints	Chapter 9 Worksheet in Connect Chapter 9 Learnsmart (LS9) in Connect Chapter 9 Quiz in Connect	10 4 ec 10
	Lab: Finish Skeletal Lab from Connect Week 3	Skeletal System Worksheet in Connect Chapter 8 Learnsmart (LS8) in Connect Skeletal System Quiz in Connect	10 4 ec 10
	Lab Practical Exam 1	Language of Anatomy, Scientific Method, Diffusion, Osmosis, Enzymes, Histology, Skeletal - PROCTORED	50
	Lecture Exam 2	Integumentary System (Chapter 6), Bone Tissue (Chapter 7), Joints (Chapter 9) - PROCTORED	100
WEEK 5 9/13-9/20	Lecture: Chapter 11 Muscle Tissue	Chapter 11 Worksheet in Connect Chapter 11 Learnsmart (LS11) in Connect Chapter 11 Quiz in Connect	10 4 ec 10
	Lab: Muscle Physiology	LearnSmart Lab – Muscle Structure & Function in Connect LearnSmart Labs – Electromyography (EMG) in Connect *SAVE your EMG data! You will use data generated in the EMG LearnSmart Lab to write a Lab Report due in week 6	5 10
	Lab: Muscles	Muscles Worksheet in Connect Chapter 10 Learnsmart (LS10) in Connect Muscles Quiz in Blackboard – not available until week 6	
		Start learning the muscles this week, however the assignments are not due until the end of week 6. Get at least half done this week – there is a lot to learn!	

WEEK 6 9/20-9/27	Lecture: Chapter 12 Nervous Tissue	Chapter 12 Worksheet in Connect Chapter 12 Learnsmart (LS12) in Connect Chapter 12 Quiz in Connect	10 4 ec 10
	Lecture: Chapter 13: Spinal Cord, Nerves, Reflexes	Chapter 13 Worksheet in Connect Chapter 13 Learnsmart (LS13) in Connect Chapter 13 Quiz in Connect Discussion Topic on vaccinations in Blackboard	10 4 ec 10 5
	Lab: Muscles continued	Muscles Worksheet in Connect Chapter 10 Learnsmart (LS10) in Connect Muscles Quiz in Blackboard	10 4 ec 10
	Lab: Lab Report	EMG LearnSmart Lab Report Due	20
	Lab: Reflexes	LearnSmart Labs: Reflex Arcs and Reflexes in Connect	10
WEEK 7 9/27-10/4	Lecture Exam 3	Muscle (Chapter 11) and Nervous Tissue (Chapter 12), Spinal Cord/Nerves, Reflexes (Chapter 13) - PROCTORED	100
	Lecture: Chapter 14 Brain & CN	Chapter 14 Worksheet in Connect Chapter 14 Learnsmart (LS14) in Connect Chapter 14 Quiz in Connect	10 4 ec 10
	Lecture: Chapter 15 ANS	Chapter 15 Worksheet in Connect Chapter 15 Learnsmart (LS15) in Connect Chapter 15 Quiz in Connect	10 4 ec 10
	Lab: Brain & CN	Brain & Cranial Nerves Worksheet in Connect Hands-on Brain Dissection using lab kit Brain and Cranial Nerves Quiz in Blackboard	10 10 10
WEEK 8 10/4- 10/11	Lecture: Chapter 16 Senses	Chapter 16 Worksheet in Connect Chapter 16 Learnsmart (LS16) in Connect Chapter 16 Quiz in Connect	10 4 ec 10
	Lab: Senses	Senses Worksheet in Connect Hands-on Eye Dissection using lab kit LearnSmart Labs: Eyes and Vision in Connect Senses Quiz in Blackboard	10 10 10 10
	Lecture Exam 4	Chapter 14, 15 and 16 - PROCTORED	100
	Lab: Practical Exam 2	Muscles, Muscle Physiology, Brain and Cranial Nerves, Reflexes, Senses - PROCTORED	50

