

Course Syllabus, Autumnal Term 2020 C.E. (Last Modified 22 September 2020 C.E.)

Estrella Mountain Community College

BIO160: Introduction to Human Anatomy and Physiology (4 Credit Hours)

Section Number 23929

Lecture: Online

Laboratory: Online

All enrolled students are required to fully read and comply with the information found herein. Further, all enrolled students are responsible for knowing and abiding by college policies included in the college catalog and the student handbook. If information in this syllabus is changed, a notification will be posted on the course website.

Course Description

This course treats principles of the scientific method, structural organization of the human body, homeostasis and control mechanisms, concepts in chemistry, and the structures and functions of the human organ systems.

Prerequisites: None. This course is a non-majors course that treats the entire human body in one academic term.

Instructor Information

Ty C.M. Hoffman, Ph.D.

ty.hoffman@estrellamountain.edu

Office Hours: TBD, and by appointment via email

Course Competencies

1. Describe principles of the scientific method. (I)
2. Describe the structural organization of the human body. (II)
3. Describe homeostasis and homeostatic control mechanisms. (III to XV)
4. Describe specific chemistry concepts pertaining to the human body. (IV to XV)
5. Describe the structure and function of the integumentary system and body membranes. (V)
6. Describe the structure and function of the skeletal system and joints. (VI)
7. Describe the structure and function of the muscular system. (VII)
8. Describe the structure and function of the nervous system. (V to XV)
9. Describe the structure and function of the endocrine system. (V to XV)
10. Describe the structure and function of the circulatory system. (X)
11. Describe the structure and function of the lymphatic system and immunity. (XI)
12. Describe the structure and function of the respiratory system. (XII)
13. Describe the structure and function of the digestive system. (XIII)
14. Describe the structure and function of the urinary system. (XIV)
15. Describe the structure and function of the reproductive system. (XV)

Learning Outcomes

By successfully completing this course, the student will gain a deeper understanding of homeostasis, basic chemistry, and the structure and function of the following human organ systems: integumentary, skeletal, muscular, nervous, endocrine, digestive, respiratory, reproductive, urinary, circulatory, and lymphatic.

Course Websites

As stated on Canvas, you will be using my own (non-Canvas) website in addition to Canvas. The URL for the general site is:

<http://www.tycmhoffman.com>

From that site, you can find the link to your specific section (23929). Be sure to bookmark the site, so you can access it even if Canvas is down. **You are REQUIRED to check the website daily**, even if nothing changes. The website includes (or will include) various resources to help you succeed. It is also where official announcements will be posted (whether I make those announcements in class or not). Failure to notice an announcement posted on the website will not be a valid excuse, so check the website frequently.

Supporting Materials (See note about textbooks on the course website)

You are **REQUIRED** to make **two purchases** for this course:

1. You are required to purchase access to my Connect (McGraw Hill) course directly through Canvas. You cannot pass this course without purchasing access to Connect, because access is required to complete the required homework. While the Connect site is required to complete some assignments, access to Connect also provides you with access to an electronic textbook that can be used for studying and for completing other kinds of assignments in the course.
2. You are required to purchase the BIO160 Laboratory Manual (Manuelito and Currey), which is available only from the EMCC Bookstore. They can ship the manual to you during the pandemic.

The following materials are suggestions. You are not required to purchase them, but I recommend having a look at them. For instance, you might prefer a different textbook to the one to which you'll have access via Connect. No textbook is right for all students.

BIO160: Introduction to Human Anatomy and Physiology
Essentials of Human Anatomy & Physiology (12th Edition), by Marieb and Keller (ISBN [9780134395326](#))
Earlier Editions (Any of these is fine for this course, and they are substantially cheaper.)
11th Edition (ISBN [0073378259](#))
10th Edition (ISBN [0073525693](#))
9th Edition (ISBN [0073316083](#))

More In-depth A&P Textbooks:

Anatomy & Physiology: The Unity of Form and Function (7th ed.), by Saladin (ISBN [0073403717](#))
Earlier Editions (Substantially cheaper.)
6th Edition (ISBN [0073378259](#))
5th Edition (ISBN [0073525693](#))
4th Edition (ISBN [0073316083](#))

An optional book that might be helpful:

Dictionary of Word Roots and Combining Forms, by Borror (ISBN [0874840538](#))

Open-source textbook:

<https://openstax.org/details/books/anatomy-and-physiology>

Rules Consent Form

You will not receive any credit in the course unless you electronically submit the Rules Consent Form found on the website. I cannot overstate how important it is to fully read and understand that form. You can easily receive a zero if you take this lightly. Believe me; it happens every term.

Scoring (This could still be adjusted.)

Examinations	4 @ 10% ea.; 40% total
Summary Sheet	4 @ 2% ea.; 8% total
Reading Quizzes on Connect	17 @ 1 ea.; 17% total
Study Activities	16 @ ca. 0.49% ea.; ca. 7.8% total
Laboratory Activities	15 @ ca. 0.49% ea.; ca. 7.3% total
Dissection Activities	4 @ ca. 0.49% ea.; ca. 1.9% total
Project Milestones	3 (0.2%, 4.8%, and 3%); 8% total
Laboratory Practicum	1 @ 10%

Grades

The minimum final scores for the respective letter grades are given below.

86%	A
76%	B
66%	C
56%	D

My Absolutely Rigid Policy on Missing Lecture Examinations

It's important for everyone to be aware of the policy regarding make-up lecture examinations. If you fail to complete a scheduled lecture examination by the deadline for that examination, there will be no official penalty for missing the examination. However, it is my strict policy that multiple-choice lecture examinations may be taken only when they are scheduled to be taken (i.e., per the most recently updated syllabus). This means that all make-up lecture examinations will consist of short-answer or essay type questions. **NO MAKE-UP LECTURE EXAMINATION WILL EVER BE A MULTIPLE- CHOICE TEST.** To ensure that you fully understand my policy, please re-read the previous sentence. The material treated on a make-up examination will be the same material treated on the corresponding multiple-choice version. In that sense, one can say that the make-up examinations are therefore no more difficult. But for many students in my experience, scores on short-answer tests are significantly lower than those on multiple-choice tests. This is because doing well on a short-answer test requires that you truly know what you're talking about. Guessing is much less likely to net you a correct answer. I'm telling you this, on the one hand, to make the official policy known. But even more importantly, I'm telling you this to strenuously dissuade you from missing a lecture examination for any but the most unavoidable of reasons. Doing well in this class **REQUIRES** that you make the class a priority. Therefore, if you'd like to receive a good grade, you would do well to save excuses for the other things that might coincide with the test dates, not vice-versa.

Laboratory

You must be concurrently enrolled in Section 23930, and your final grade is a combination of credit earned in both sections (lecture and laboratory).

MCCD Policies and Procedures

Estrella Mountain and all Maricopa Community Colleges are governed by the same policies and procedures which include information about nondiscrimination, compliance with regulations, health concerns, admissions, residency guidelines, financial assistance, academic advising, assessment, articulation, registration, tuition and fees, refunds, attendance, grading, records, and scholastic and disciplinary standards. These policies can be found in the academic catalog and student handbook and it is each student's responsibility to be informed of this information.

General Education Abilities

EMCC recognizes seven general education areas that our courses address. Targeting these abilities will not only advance students' academic success, but help them to be more productive in their careers. Each semester, one of these abilities is targeted for campus-wide assessment.

Communication
Composition/Writing
Quantitative Reasoning
Critical Inquiry
Information Literacy
Technological Literacy
Social, Civic and Global Responsibility

For more information, visit <http://www.estrellamountain.edu/employees/committees/saac/gen-ed-abilities>.

Participation Policy

Being successful in a biology course requires a great amount of self-discipline, and students are expected to spend about three times as many hours outside of class as will be spent in class. These hours outside of class should be devoted to listening to lecture recordings, revising notes, studying slides shows, reading, and completing assignments.

Technology Policy

Students who take online courses need reasonable computer competence and good study, Internet, and reading comprehension skills to be successful. Skills specific to individual courses may also be required; for example, proficiency with a word processing package may be needed for an online English course.

Please visit **Is Your Computer Ready for E-Learning?** (<http://www.estrellamountain.edu/academics/distance-learning/orientation>) for complete list of requirements.

Your instructor is not the technology support staff. Questions and problems concerning technology, computers, Canvas, software, etc. must be directed to the Information Commons in Estrella Hall: 623-935-8150. A 24/7 Maricopa Canvas help desk is also available at My .Maricopa.edu.

It is the student's responsibility to be proficient in using Canvas, its required processes, and Microsoft programs to be successful in an online/hybrid learning environment. Students need to be proactive in ensuring they are skilled in Canvas' processes in order to complete all assignments on time. Technology excuses for late or incomplete assignments will not be accepted.

Communication Policy

Every MCCC student has been issued an active Maricopa Gmail account through My.Maricopa.edu. All Communications initiated from CANVAS and official school notifications will come via your Maricopa.edu account. Every student must check their Gmail account daily, or strongly recommend you forward all maricopa.edu to a personal email address so you can review messages daily. You can expect an answer within two business days.

Please visit Gmail at Maricopa (<http://www.estrellamountain.edu/academics/classes/getting-started>) to learn how to set up your Gmail.

Canvas Notifications Policy

Canvas Notification Preferences allow you to select how and when to be notified (via email, text message, twitter or Facebook) when there's an announcement or a message sent from within Canvas. Students will be notified whenever there is a change in a due date, an updated assignment, or a message sent from within Canvas.

Canvas supports notification through email, SMS text message, twitter, and Facebook. Canvas. You can choose to receive notification alerts immediately, daily, weekly, or never.

Please follow these steps:

- Click the Setting tab on the top of orange bar.
- Click Notifications locates on the left side of navigation
- Review/update all the notification
- Click Save Preferences

You can also visit this tutorial for Notification Preferences:

<http://guides.instructure.com/s/2204/m/4144//73162-how-do-i-set-my-notification-preferences>

Academic Integrity Policy

All students assume as part of their obligation to the college the responsibility to exhibit in their academic performance the qualities of honesty and integrity. All forms of student dishonesty are subject to disciplinary action. Students are responsible for familiarizing themselves with EMCC's Students Rights and Responsibilities (<http://www.estrellamountain.edu/students/policies/rights-responsibilities>).

Academic misconduct includes but is not limited to misconduct associated with the classroom, laboratory, or clinical learning process. Some examples of academic misconduct are cheating, plagiarism, and excessive absences. For more information, please refer to the Student Handbook, Section 2.3.11

(<https://chancellor.maricopa.edu/public-stewardship/governance/administrative-regulations/2-students/2.3-scholastic-standards/2.3.11-academic-misconduct>).

Disability Policy

If you have a documented disability, including a learning disability, and would like to discuss possible accommodations, please contact the Disability Resource Center (KOM B-125) at 623.935.8863 or 623.935.8928 VP or drc@estrellamountain.edu.

To ensure equal access, all required course materials provided in web links are expected to meet AA Standard of Compliance with the Web Content Accessibility Guidelines (WCAG) 2.0. All internal and external course links should be evaluated by the WAVE Web Accessibility Evaluation Tool. Course materials are expected to be in compliance, or an alternative option provided upon a student's request. Students with disabilities must have an equally effective and equivalent educational opportunity as those students without disabilities. Students experiencing difficulty accessing course materials because of a disability are expected to contact the course instructor so that a solution can be found that provides all students equal access to course materials and technology.

Information for Pregnant or Parenting Students: If you are a pregnant or parenting student you are protected under Title IX regarding classroom accommodations. Please request please contact the Disability Resource Center (KOM B-125) at 623.935.8863 or 623.935.8928 VP or drc@estrellamountain.edu.

Classroom Accommodations for Students with Disabilities

In accordance with the Americans with Disabilities Act, the Maricopa County Community College District (MCCCD) and its associated colleges are committed to providing equitable access to learning opportunities to students with documented disabilities (e.g. mental health, attentional, learning, chronic health, sensory, or physical). Each class/term/semester that a student is in need of academic adjustments/accommodations, the qualified student is required to work with the Disability Resources & Services Office (DRS) at their individual college(s). Contact with the DRS should be made as soon as possible to ensure academic needs are met in a reasonable time. New and returning students must request accommodations each semester through DRS Connect online services. To learn more about this easy process, please contact your local DRS office.

If you have not yet established services through DRS, but have a temporary health condition or permanent disability that requires accommodations, you are welcome to contact DRS at [insert DRS office phone number] or [insert web address]. The DRS offers resources and coordinates reasonable accommodations for students with disabilities and/or temporary health conditions qualifying for accommodations/academic adjustments. Reasonable accommodations are established through an interactive process between you, your faculty, and DRS; and only those academic adjustments/reasonable accommodations granted by the DRS are recognized by the college and District. It is the policy and practice of the MCCCD to create inclusive and accessible learning environments consistent with federal and state law.

Sexual Harassment

Sexual harassment is any unwelcome, verbal or physical conduct of a sexual nature that is sufficiently severe, persistent, or pervasive that it alters learning conditions and creates a hostile environment or reasonably interferes with, limits, or deprives a student of the ability to participate in or benefit from any educational program or activity.

Maricopa County Community College District's (MCCCD) Preventing Sexual Harassment and Sexual Violence course is now available to all students. Please check for your self-enrollment link in your Message Center within your Online Student Center via My.Maricopa.edu.

Students should report any discrimination and/or harassment they experience and/or observe to the Vice President of Student Affairs/Title IX Coordinator, Dr. Patricia Cardenas-Adame, located in Estrella Hall room 221, 623-935-8812.

Updated 2/8/2017

Public Safety

The EMCC Public Safety Department provides assistance and security for people on campus, protection of district and personal property, traffic control, visitor assistance, operation of a lost and found function, loss prevention and loss reporting, identification of safety hazards, training and orientation of employees and students. The Public Safety building is located at the North-end of Parking Lot A and can be reached at (623) 935-8915.

For more information visit: <https://www.estrellamountain.edu/mems>.

Addressing Incidents of Sexual Harassment/Assault, Dating/Domestic Violence, and Stalking

In accordance with Title IX of the Education Amendments of 1972, MCCCCD prohibits unlawful sex discrimination against any participant in its education programs or activities. The District also prohibits sexual harassment—including sexual violence—committed by or against students, university employees, and visitors to campus. As outlined in District policy, sexual harassment, dating violence, domestic violence, sexual assault, and stalking are considered forms of "Sexual Misconduct" prohibited by District policy.

District policy requires all college and District employees in a teaching, managerial, or supervisory role to report all incidents of Sexual Misconduct that come to their attention in any way, including but not limited to face-to-face conversations, a written class assignment or paper, class discussion, email, text, or social media post. Incidents of Sexual Misconduct should be reported to the college Title IX Coordinator. For a list of Title IX Coordinators, click here. Reports may also be reported at: <https://district.maricopa.edu/consumer-information/reporting>.

Disclaimer

This syllabus is subject to change. Students will be notified of any changes to this syllabus. The student is responsible for making note of all such announcements concerning syllabus revisions.

Schedule of Lectures and Examinations (This could change before or after the term starts.)

Date	Topic(s) for lecture
Always available	Course Overview
	The Human Body: An Orientation
	Basic Chemistry
	Cells and Tissues
	Skin and Body Membranes
22 September	Examination 1
Always available	The Skeletal System
	The Muscular System
	The Nervous System
	Special Senses
21 October	Examination 2
Always available	The Endocrine System
	Blood
	The Cardiovascular System
	The Lymphatic System and Body Defenses
19 November	Examination 3
Always available	The Digestive System and Body Metabolism
	The Respiratory System
	The Reproductive System
	The Urinary System
18 December	Examination 4

Schedule of All Graded Items (This could change before or after the term starts.)

Due Date (by 23:59)	Graded Item(s)
26 August	Study Activities for Introduction to Anatomy and Physiology
28 August	Laboratory Activities for The Human Body
30 August	Reading Quiz for Chapter 01: Introduction to Human Anatomy and Physiology
01 September	Laboratory Activities for Anatomical Terms
03 September	Study Activities for Chemistry, Macromolecules, and Biochemistry
05 September	Reading Quiz for Chapter 02: Chemical Basis of Life
07 September	Project Milestone 1
09 September	Reading Quiz for Chapter 03: Cells
11 September	Laboratory Activities for Tissues
13 September	Study Activities for Tissues
15 September	Reading Quiz for Chapter 05: Tissues
17 September	Study Activities for Integumentary System
19 September	Dissection Activities for Chicken Dissection
21 September	Summary Sheet Unit 1
22 September	Exam 1
	Reading Quiz for Chapter 06: Integumentary System
24 September	Study Activities for Skeletal System
26 September	Laboratory Activities for Studying the Human Skeleton
28 September	Reading Quiz for Chapter 07: Skeletal System
30 September	Study Activities for Muscular System
02 October	Laboratory Activities for Muscles with Clay
04 October	Laboratory Activities for Sliding Filament Model
06 October	Reading Quiz for Chapter 08: Muscular System
08 October	Study Activities for Nervous System
10 October	Dissection Activities for Sheep Brain Dissection
12 October	Reading Quiz for Chapter 09: Nervous System
14 October	Study Activities for Special Senses
Canceled	Laboratory Activities for Plasticity in Sensory-Motor System
18 October	Dissection Activities for Cow Eye Dissection
20 October	Summary Sheet Unit 2
21 October	Exam 2
	Reading Quiz for Chapter 10: The Senses
23 October	Study Activities for Endocrine System
25 October	Laboratory Activities for Endocrine System
27 October	Reading Quiz for Chapter 11: Endocrine System
29 October	Study Activities for Blood
31 October	Reading Quiz for Chapter 12: Blood
02 November	Study Activities for Cardiovascular System
04 November	Laboratory Activities for The Heart
06 November	Laboratory Activities for the Beast Within
08 November	Reading Quiz for Chapter 13: Cardiovascular System
10 November	Laboratory Activities for Exercise and Homeostasis
12 November	Study Activities for Lymphatic and Immune System
14 November	Laboratory Activities for Body Snatcher Questions
16 November	Dissection Activities for Rat Dissection
18 November	Summary Sheet Unit 3
19 November	Exam 3
	Reading Quiz for Chapter 14: Lymphatic System and Immunity
20 November	Project Milestone 2
21 November	Study Activities for Digestive System
23 November	Laboratory Activities for Nutrition, Metabolism, and Digestion
25 November	Reading Quiz for Chapter 15: Digestive System and Nutrition
27 November	Study Activities for Respiratory System
29 November	Laboratory Activities for Lung Models
01 December	Reading Quiz for Chapter 16: Respiratory System
03 December	Study Activities for Reproductive System
05 December	Laboratory Activities for Reproductive System
07 December	Laboratory Activities for Teen Dreams
09 December	Reading Quiz for Chapter 19: Reproductive Systems
11 December	Study Activities for Urinary System
13 December	Reading Quiz for Chapter 17: Urinary System
15 December	Practicum
16 December	Project Milestone 3
17 December	Summary Sheet Unit 4
18 December	Exam 4