**Biology 6**

**Introductory Physiology**

(Section 1046)

**Hartnell College, Spring 2024**

Instructor: Alexander Edens Email: aedens@hartnell.edu

Office: S-233 Telephone: (831) 770-7055

Class Hours: Lectures Online asynchronous

 Discussion boards Online asynchronous

 Quizzes Online asynchronous

 Exams **On campus, synchronous**

Office Hours: Monday and Wednesday 9:00 am - 10:00 am Room S-233

 Tuesday and Thursday 3:00 pm - 4:00 pm Room S-233

 (office hours are also available by Zoom but please send me an email to

 make an appointment for a Zoom office hour)

Required textbook:

Human Physiology, 16th edition (authors: Fox and Rompolski). Published by McGraw-Hill (2022)

 This book is available from the campus bookstore. Earlier editions are acceptable.

Course websites:

 Almost all of the course material (syllabus, lecture outlines, grades, review questions, podcasts of lectures, etc) are found at this website:

 http://www.lightsinheaven.com/Hartnell/Bio6/Bio6home.html

 However, the quizzes and discussion boards will be given through the

 Canvas course shell.

 https://hartnell.instructure.com/login/canvas

Important class dates:

Last day to withdraw from class with

 a No-Grade-of-Record (NGR)-------------- Friday, February 9

Last day to withdraw from class

 with a "W"------------------------------------- Friday, April 19

Exams: There are four midterm exams and one final exam. All exams will be given on campus and synchronously. The exam questions will be based on the materials presented in the lectures. The week that each exam is given is listed below.

 Midterm 1---Week of February 5 - 9

 Midterm 2--- Week of March 4 - 8

 Midterm 3--- Week of April 1 - 5

 Midterm 4--- Week of April 22 - 26

**Final exam---** Week of May 13 - 16

Grades: Each student’s grade in the class will be determined by the total points they accumulate throughout the semester. A total of 600 points are possible:

 Point total: % of total Grade

 600 - 540 100 - 90 A

 539 - 480 89 - 80 B

 479 - 390 79 - 65 C

 389 - 300 64 - 50 D

 299 - 0 49 - 0 F

Points:

600 possible points can be earned throughout the semester. Points are earned through discussion boards, midterms, quizzes, and the final exam. Points can be lost for unsafe, disruptive, or inappropriate behavior. There is no extra credit in this course.

 Points (600) Source Computation

 300 Midterms 100 pts \* 3 highest (out of 4 midterms)

 50 Quizzes 5 pts \* 10 highest (out of 11 quizzes)

 30 Discussion boards 2 pts \* 15 highest (out of 16 discussions)

 220 Final exam

Earning points:

Midterms: There are four 100-point one hour midterm exams. Each midterm will consist of 50 multiple choice questions based the material presented in lecture. Each midterm will be given synchronously on campus. In other words, the midterms are not given online. The student must come to campus to take the midterm. See the exam schedule on the previous page for a list of which weeks are midterm weeks. On each midterm week, several 1 hour time slots will be available for the students to take the midterm. It is each students' responsibility to schedule one of the 1 hour time slots with the instructor during at least two days before taking the midterm. All missed midterms will be recorded as a zero score regardless of the reason that the midterm was missed. There are no make-up midterms. However, each student’s single lowest midterm score will not be counted so a total of 300 points (3 \* 100 points) can be earned from midterms. All midterms are to be taken with no outside resources (see next page for details).

Quizzes: There are eleven 5-point quizzes that will be given asynchronously online through the Canvas course shell. See pages 5 and 6 of this syllabus for the schedule of quiz weeks. Each quiz will consist of five multiple choice questions based the material presented in lecture during the week of the quiz. Each quiz becomes available on Monday of the quiz week. Each quiz must be completed no later than 5:00 pm on the Sunday of the quiz week. All missed quizzes will be recorded as a zero score regardless of the reason that the quiz was missed (including internet connection problems). There are no make-up quizzes. However, each student’s single lowest quiz score will not be counted so a total of 50 points (10 pts \* 10 quizzes) can be earned from quizzes. All quizzes are to be taken with no outside resources (see next page for details).

Discussion boards: There are 16 two-point discussion board assignments during the semester (there is one discussion board assignment each week of the semester). The discussion boards are accessed through the Canvas course shell. Participating in a discussion board assignment involves either (a) posting a question to your study group about something in the lecture that you did not understand, or (b) answering a question that someone else in your study group has posted. Every week, each student's discussion board questions and/or answers must be posted by Sunday at 5:00 pm. Missed discussion board postings cannot be made up and will be counted as a zero. However, each student’s single lowest discussion board posting will not be counted so at total 30 points (2 point\* 15 highest scores) can be earned from discussion boards.

 Final exam: There is one 220-point 1 hour 40 minute comprehensive final exam

that will be given during the last week of the semester (May 13 - 17). The final exam will consist of 100 multiple choice questions based the material presented in lecture throughout the semester. The final exam will be given synchronously on campus. In other words, the final exam is not given online; the student must come to campus to take the final exam. It is each students' responsibility to schedule the final exam with the instructor at least two days before the student wishes to take the final exam. A missed final exam will be recorded as a zero score regardless of the reason that the exam was missed. The final exam is to be taken with no outside resources (see section below).

Student conduct:

All exams and quizzes are to be taken with no outside resources. This means that students are to answer exam and quiz questions using only their memory of the course material. In other words, students may not use books, notes, internet resources, or any other source of information during exams and quizzes. Using any source of information during an exam/quiz is considered academic dishonesty (cheating).

The exams and quizzes (including the on campus exams) are given through Canvas course shell software. Because electronically-based academic dishonesty involves opening applications and/or viewing browser tabs other than the Canvas exam/quiz window, students are not allowed to click their cursor on anything outside of the Canvas window during the exam/quiz. Be aware that Canvas software monitors student activity during the exam/quiz. Clicking your cursor on any application, any website, or anything at all outside of the Canvas window during the exam/quiz (regardless of whether or not the information relates to the exam/quiz) will be reported to your instructor and is considered breaking the course's student conduct rules.

Any form of academic dishonesty will result in receiving zero points for the assignment, loss of three times the maximum point value of the assignment, and a letter of reprimand being placed in the student’s permanent records at Hartnell College. Note that if you receive any information about exam questions or answers before the exam, you are guilty of academic dishonesty unless you notify me immediately regarding your name, what information you received, and who provided you with this information. You may notify me about the information you received in any way you wish but be aware that there is a reporting link on the course website:

http://www.lightsinheaven.com/Hartnell/Bio6/Bio6AcademicHonesty.php

Attendance and returned materials policies:

There are no extra-credit points and no make-up quizzes, exams, or discussion boards available in this class. All missed assignments will be counted as zeros.

Students have one week to review the grading and corrections on all assignments. After one week no change in score will be considered. A student absent for a total of 4 consecutive or 6 cumulative instructional hours and/or two consecutive weeks of instruction may be dropped from the class. Exceptions may be made for students who document that the cause was a medical emergency.

Lecture outlines and study problems:

All lecture outlines and all review problems are posted on the course website. They are posted as Microsoft Word files. You are encouraged to print the outlines and use them for taking study notes and working the study problems.

Lecture, quiz, and exam schedule: (subject to change)

Week Lecture topics \_\_ Exams/quizzes

Jan 22-26 Introduction to physiology (chapter 1) Quiz 1

(week 1) Basic chemistry (chapter 2)

 Water (chapter 2)

Jan29-Feb2 Biological molecules (chapter 2) Quiz 2

(week 2) Enzymes and energy (chapter 4)

Feb 5-9 Enzymes and energy (chapter 4) **Midterm 1**

(week 3) Cells and tissues (chapters 1, 3, and 4)

Feb 12-16 Cellular respiration (chapter 5) Quiz 3

(week 4)

Friday/Saturday Holiday

Feb 19-23 Osmosis, diffusion, and cell transport (Ch. 6) Quiz 4

(week 5) The nervous system (chapters 7 - 9)

(Monday Holiday)

Week Lecture topics \_\_ Exams/quizzes

Feb26-Mar1 The nervous system (chapters 7 - 9) Quiz 5

(week 6)

Mar 4–8 Sensory physiology (chapter 10) **Midterm 2**

(week 7)

Mar 11-15 Sensory physiology (chapter 10) Quiz 6

(week 8) Endocrine system (chapter 11)

Mar 18-22 Muscular system (chapter 12) Quiz 7

(week 9)

Apr 1-5 The cardiovascular system (chapters 13 and 14) **Midterm 3**

(week 10)

Apr 8-12 The cardiovascular system (chapters 13 and 14) Quiz 8

(week 11) Blood (chapter 13)

Apr 15-19 The immune system (chapter 15) Quiz 9

(week 12)

Apr 22-26 The respiratory system (chapter 16) **Midterm 4**

(week 13)

Apr29-May3 The digestive system (chapters 18 and 19) Quiz 10

(week 14)

May 6-10 The urinary system (chapter 17) Quiz 11

(week 15)

May 13-17 Reproductive system (chapter 20) **Final Exam**

(week 16)

Student learning outcomes:

(a) Given a representation of the human body, the student will correlate structure and function of cells and tissues to physiologic function, and apply this relationship to the structure and function of organ systems.

(b) Given an example of solute distribution on either side of a semipermeable membrane, the student will be able to predict the movement of materials across biological membranes.

(c) Given a scenario of internal physiological regulation, the student, through understanding of homeostasis, will be able to predict the body's response to specific deviations for the resting state, as well as the result if the regulatory mechanism is deficient.

(d) Given a description of a macromolecule, the student will evaluate the structure and function of biological molecules and the regulation of their catabolism and anabolism.

**In case of Emergency**

In the event of a life-threatening emergency call 911.

To report a non-life threatening incident, safety hazard, or a suspicious activity please contact campus security at (831) 755-6888. From a campus line, dial 6888.

To obtain campus status information, call the campus safety and facilities emergency status bulletin telephone number: 831-796-6222. From a campus line, simply dial 6222

Please visit Hartnell's emergency reporting link here:
[http://www.hartnell.edu/reporting-emergencies](http://www.hartnell.edu/reporting-emergencies%22%20%5Ct%20%22_blank)

Non-emergency police business. . . . . . . . . . . . . . . . . . . . . . . . .831-758-7321

**NON-LIFE THREATENING INCIDENTS, INJURIES OR ILLNESS**

During school hours call Campus Safety 831-755-6888

After school hours call 831-755-6888

**UTILITY FAILURE**

During school hours call the Facilities Office at x6950 or 831-755-6950

After school hours call 831-755-6888

**ANY INCIDENT WITH POTENTIAL FOR ADVERSE PUBLICITY TO THE COLLEGE**

Call President's Office, x6900 or 831-755-6900

After school hours call 831-755-6888

**DURING A CAMPUS EMERGENCY:**

During a campus emergency, you will generally be told to do one of two options, SHELTER IN PLACE or EVACUATE. When either of these are given, vehicle traffic coming onto campus will likely be turned away. Students are required to obey the directions of staff in a timely fashion.

**EMERGENCY TEXT NOTIFICATIONS**

In the event of an emergency, Hartnell College can contact you by email, text, and voice. [Hartnell College has partnered with the Everbridge Mass Notification](http://www.hartnell.edu/alert%22%20%5Ct%20%22_blank) system to provide emergency notifications. The system is used to send emergency notifications to Hartnell faculty, staff, and students in the event of a campus emergency such as a campus closure or hazardous situation. The system will send notifications through email, voice calls, and text messaging.

Students: If you receive an emergency notification, please tell your instructor immediately.

Students: If you have knowledge of an emergency on campus, share it immediately. If you see something suspicious or potentially hazardous, let someone know.

If you have been notified that the campus has been closed because of an emergency, please do not proceed to the campus until you have confirmed that it is clear to enter the campus.

**Evacuation:**

Please note the exit(s) in the room. For evacuation, immediately heed official directions by proceeding calmly and quickly to an exterior assembly area as indicated by trained staff. Please stay back at least 200 feet from any building until the “all clear” command is issued. In the event of an alarm or safety threat, uniformed Hartnell personnel equipped with two-way radios--including security, and maintenance staff--have up-to-date information; they also have the authority to order either shelter-in-place or immediate building evacuation.

**Shelter In Place:**

A shelter in place order is when personnel are told not to leave their immediate area. Shelter in place means that personnel should stay where they are. This could be for safety from an environmental threat, like a chemical leak off campus, to a threat of violence on campus. A LOCKDOWN is a shelter in place. In the event of an alarm or safety threat, uniformed Hartnell personnel equipped with two-way radios--including security, and maintenance staff--have up-to-date information; they also have the authority to order either shelter-in-place or immediate building evacuation.

**Lockdown**

A lockdown is a Shelter in Place. In the event of a safety threat, instructors and staff will lock classroom doors and direct occupants to stay clear of windows. Occupants are requested to remain quiet. During this time, DO NOT access any exits unless directed by first responders or staff.

In the event of an alarm or safety threat, uniformed Hartnell personnel equipped with two-way radios--including security, and maintenance staff--have up-to-date information; they also have the authority to order either shelter-in-place or immediate building evacuation.

**Run, Hide, Fight:**

In the event of an Active Shooter Event, there are three things you need to know in order to survive:

[Run, Hide, Fight](https://www.dhs.gov/sites/default/files/publications/active_shooter_pocket_card_508.pdf%22%20%5Ct%20%22_blank).

[Ready.gov Active Shooter Website](https://www.ready.gov/active-shooter%22%20%5Ct%20%22_blank)

**RUN**

Have an escape route and plan in mind

Leave your belongings behind

Keep your hands visible

**HIDE**

Hide in an area out of the shooter’s view

Block entry to your hiding place and lock the doors

Silence your cell phone and/or pager

**FIGHT**

As a last resort and only when your life is in imminent danger

Attempt to incapacitate the shooter

Act with physical aggression and throw items at the active shooter

**AFTER**

Keep hands visible and empty

Know that law enforcement’s first task is to end the incident, and they may have to pass injured along the way.

Follow law enforcement instructions and evacuate in the direction they come from.

Officers may be armed with rifles, shotguns, and/or handguns and may use pepper spray or tear gas to control the situation.

Officers will shout commands and may push individuals to the ground for their safety.

Consider seeking professional help for you and your family to cope with the long-term effects of the trauma.

Helping the Wounded

Take care of yourself first, and then you may be able to help the wounded before first responders arrive:

If the injured are in immediate danger, help get them to safety.

While you wait for first responder to arrive, provide first aid- apply direct pressure to wounded and use tourniquets if you have been trained to do so;

Turn wounded people onto their sides if they are unconscious and keep them warm.

**EMERGENCY PREPAREDNESS:**

The first 72 hours of a disaster are often the most difficult, but this period can be less stressful if everyone has extra supplies on hand.  The college has a limited amount of emergency supplies, so students and staff should have on campus their own portable emergency kit including snacks, water, and prescription medication; this is especially important for those who may need to shelter on campus.

[Ready.gov lists essential 72 Hour Kit Components here](https://www.ready.gov/build-a-kit%22%20%5Ct%20%22_blank)

**REPORTING SUSPICIOUS BEHAVIOR:**

If you see suspicious behavior on campus, please contact [Campus Safety](http://www.hartnell.edu/reporting-crimes-and-requesting-police-assistance%22%20%5Ct%20%22_blank)

**ANONYMOUS REPORTING OF INCIDENTS OR CONCERNS:**

Hartnell’s Behavioral Intervention Team (BIT) accepts and processes anonymous reports from anyone about incidents or concerns on our campus. Please visit the [Behavioral Intervention Team website](http://www.hartnell.edu/behavioral-intervention-team%22%20%5Ct%20%22_blank) for more information.

**REPORTING FORMS:**

Public Incident Report Form

Use the [Public Incident Report form](https://hartnell-advocate.symplicity.com/public_report/index.php/pid702450?rep_type=1001https://hartnell-advocate.symplicity.com/public_report/index.php/pid702450?rep_type=1001" \t "_blank) for:

Student Conduct Violations

Academic Integrity Issues

Student Complaints or Grievances

CARE Form

Use the [CARE form](https://hartnell-advocate.symplicity.com/care_report/index.php/pid639829%22%20%5Ct%20%22_blank) for:

Concerns about Well-being

Mental Health Concerns

Unusual or Disruptive Behavior

USEFUL LINKS:

[Campus Maps and Directions](http://www.hartnell.edu/locations-and-maps%22%20%5Ct%20%22_blank)

[Emergency online resources](http://www.hartnell.edu/emergency-online-resources%22%20%5Ct%20%22_blank)

[Campus Safety Policies](http://www.hartnell.edu/campus-safety-policies%22%20%5Ct%20%22_blank)

[Hartnell's Emergency Alert System](http://www.hartnell.edu/alert%22%20%5Ct%20%22_blank)

[Hartnell Emergency Action Plan 2017 - 2018](https://www.hartnell.edu/sites/default/files/library_documents/safety/emergency_action_plan.pdf)

DSPS:

The Department of Supportive Programs and Services (DSPS) coordinates academic accommodations for students with documented disabilities at Hartnell College. If you have, or suspect you may have, a disability that impacts your education, please contact the DSPS Office to determine your eligibility for accommodations. DSPS is located in the Student Services Building B, Room 107 (831) 755-6760. I encourage you to meet with Amy Lehman, Director of DSPS, to discuss your specific accommodations and to have test proctoring forms signed 5 days in advance.