

Medical Anatomy and Physiology

INSTRUCTOR

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TEXTBOOK

Hole's Essentials of Human Anatomy and Physiology, 12th ed., by David Shier, Jackie Butler, and Ricki Lewis, McGraw-Hill Higher Education, 2010.

SUPPLEMENTARY MATERIALS

Course Website: <http://www.glencoe.com/shier12>

Laboratory Manual by Terry R. Martin, McGraw-Hill Higher Education, 2011.

GRADING POLICY

	Sem 1	Sem 2
Anatomy Exams (8)	20%	20%
Assignments	20%	10%
Laboratories	20%	10%
Quizzes (12)	20%	20%
Final Anatomy Exam		20%
Final State MAP Exam		20%

COURSE DESCRIPTION

This course is a study of human anatomy and physiology and includes the topics of introductory chemistry, cells, tissues, organs, and organ systems including: skin and integumentary system, skeletal and muscular systems, nervous system, endocrine system, blood and the cardiovascular system, lymphatic system, digestive system, respiratory system, urogenital system, and the reproductive system. This course will also focus on diseases and disorders of the organ systems, careers, and laboratory experiences.

This course is a Utah Career Technology Education (CTE) course and students who complete skills requirements may receive associated certification in Medical Terminology. See skills requirements below.

1. Students will participate in a minimum of three career exploration experiences to investigate a variety of health care careers related to therapeutic services, diagnostic services, health informatics, support services, and biomedical research and development pathways. Examples include: guest speakers, field study, career fair, job shadows, and internships. Electronically delivered career exploration experiences are permissible.
2. Students will give an oral and/or written report for each WBL experience.
3. Students will select a topic and defend their position on a current medical ethical dilemma.

RATIONALE

This course is designed to assist the high school student in preparing for future careers in health care, athletics, science, or education. Serious students will gain the same level of understanding of the human body required for nursing, pre-med, pre-vet, and other health sciences. Although no college credit is given, a traditional human anatomy and physiology course at the college level is often one of the more difficult courses to pass, and unprepared students often fail and change their majors as a result. You can expect this course to be just as rigorous as its college counterpart.

BEING SUCCESSFUL

Your success in this course will come from many factors including coming to class on time each day, taking good notes, listening, observing, staying awake, doing laboratories and research, completing assignments, and acting your age by being attentive and respectful of the teacher and your fellow classmates.

High school is a busy time where you will be engaged in many activities that will take you away from your learning time. You will need to find ways to balance out-of-class activities such as athletics, FFA, Music, etc. Please understand that your day-to-day class work is MORE IMPORTANT than all the other activities that you do. You will most likely want to go to college some day. Research has shown that students who maintain HIGH ACADEMIC standards are the ones who get the scholarships and grants, and are able to attend colleges and universities of their choice. Furthermore, to aspire to prestigious and high paying jobs only comes to those who have taken their high school academics seriously, are accepted into good colleges and universities, then complete their training with the greatest amount of proficiency.

This course will be rigorous and it will be your responsibility to get your work done. We will not stop, slow down, or make exceptions for those students that are lazy, sleepy, bored, or otherwise disinterested. You will find yourself getting behind very quickly if you choose to exhibit any of these behaviors. Also, just because you miss class due to athletics or other school activities, don't expect any special treatment. You will need to keep up your work regardless of how many times you miss class. All students have the same amount of time to complete assignments. Failure to maintain a high level of discipline and increased study habits may result in your being dropped from the course.

COURSE PROCEDURES

Anatomy Tests (20%) – There will be eight (8) anatomy tests given throughout the course on the following: Body Regions & Medical Specialists, Histology, Bones, Muscles, Brain, Heart, Immune System, and the Reproductive System. At the completion of the course you will have learned more than five hundred different structures in the human body.

Assignments (20%) – The assignments in this course will vary greatly! Depending on the material presented, the learning level and attentiveness of the class, disciplinary problems, etc., different assignments will be given that reflect these attributes. You should expect to participate in discussions, Internet activities, group work, and homework assignments during every unit. You are expected to read every assigned chapter and to complete all assignments on time. Participating in sports or other activities does NOT excuse you from completing assignments. If you happen to be gone on a day that we do an assignment that cannot be made up, then accept the fact you will receive a zero on that assignment. This class does not slow down, nor does it wait for you to catch up. Be sure to keep up on everything and only miss class when it is absolutely necessary.

Laboratories (20%) – There will be several laboratories given throughout the course. The laboratories are designed to help you learn the complex anatomical structures of the human body, and the functioning of the body's many physiological systems. A laboratory preparation/discussion session will be held the day before the laboratory. Several of the labs will require the dissection of owl pellets, hearts, brains, kidneys, eyes, livers, and testicles. Please talk with the teacher if you have a problem with touching and/or dissecting real specimens. All specimens are non-human. We are also anticipating a visit to Snow College to see their human cadavers.

Quizzes (20%) – The purpose of quizzes is to determine if you are grasping the basic material. There will be a quiz at the end of each of the 12 units. Quizzes will be taken in class and the end of each unit. There are practice quizzes available online at <http://www.glencoe.com/shier12>.

Final Examination (20%) – At the end of the semester, you will take two comprehensive final exams. The first will be the state MAP exam that will be done on computer. The second will be an Anatomy Final that will take over three days. You must score 80% or better on the state exam to receive pathway certification. You must also score 80% on the Anatomy Final or a re-take will be required. It is recommended that you along with your fellow students have several study sessions outside of class, prior to the final exams.

Flashcards:

There are two sets of flashcards that you are to use for study purposes during this course. The flashcards are available on the Internet, they may be printed, or you may assess them via iPod/iPad/Android/iPhone etc. We will use the flashcards in class on a daily basis. You may use your electronic devices in class during our study of the flashcards only, and only when the teacher says it is appropriate. The online website is **quizlet.com**. The app is called **flashcardlet**. Mr. Brady will demonstrate how to use the cards online, and how to access them on mobile devices.

YOUR RIGHTS

In this class you have the right to:

1. A safe learning environment that is free from physical or verbal abuse, intimidation, or harassment, including any and all forms of sexual harassment, obscenity, indecent, or inconsiderate behavior.
2. Report any and all problems or concerns to the teacher without feeling intimidated or afraid that your grade or class standing will suffer.
3. Receive a meaningful and useful education. This means that the teacher will be well prepared, have a variety of learning activities available, and will not waste your time and energy by giving your meaningless busywork.
4. Have a learning environment that is free of drugs and alcohol.
5. Get all the help you need from the teacher in order to learn the subject matter. Do not be afraid to ask the teacher for help at any time.
6. Know what your grade is at any time. Just ask.
7. Be treated fairly, make choices, and express your own thoughts and ideas openly.
8. Be yourself.

COURSE LAYOUT (Subject to change)

Units	Chapter(s)	Subject	Exercises, Laboratories, and Assignments
1	1	Body Plan and Organization	Syllabus, Worksheets (2), Unit Quiz, Careers, Body Regions & Medical Specialties Exam, Owl Pellet Lab
2	2,4	Basic Principles of Body Chemistry	Worksheet (1), Careers, Unit Quiz
3	3,5,6	Cells, Histology, Integumentary System	Worksheets (3), Diseases & Disorders, Careers, Unit Quiz, Histology Exam, Histology Lab
4	7,8	Skeletal System	Worksheets (3), Diseases & Disorders, Careers, Unit Quiz, Bones Exam, Skulls and Skeletons
5	9	Muscular System	Worksheets (2), Diseases & Disorders, Careers, Unit Quiz, Muscles Exam
6	10,11,12	Nervous System and Special Senses	Worksheets (4), Diseases & Disorders, Careers, Brain Dissection, Eye Dissection, Unit Quiz, Brain Exam
7	13	Endocrine System	Worksheets (2), Diseases and Disorders, Careers, Diabetes Reading & Activity, Unit Quiz
8	14,15,16	Blood, Lymphatic, and Cardiovascular Systems	Worksheets (4) Diseases & Disorders, Careers, Blood Lab, Heart Dissection, Unit Quiz, Immunity Exam
9	19	Respiratory System	Worksheet (1), Diseases & Disorders, Careers, Respiratory System Lab, Unit Quiz
10	17,18	Digestive System	Worksheet (1), Diseases & Disorders, Careers, Unit Quiz
11	20	Urinary System	Worksheets (3), Diseases & Disorders, Careers, Unit Quiz
12	22,23	Reproductive System	Worksheets (2), Taking a Hx, Diseases & Disorders, Careers, Unit Quiz
		Review session for the final examination	The entire material presented in course will be reviewed. A practice exam will also be given.
		State MAP Exam	The State MAP Exam will be taken online during a regular class period. Students must 80% or higher on this exam for career pathways certification.
		Final Anatomy Examination	This exam will cover all anatomy learned in the course. The exam will occur over three days (finals days).

POLICIES AND PROCEDURES CONTRACT

This class will use Classroom Dojo, which is a classroom management tool that allows the teacher to award or punish a student, based on behavior and preparedness. Following the rules and being prepared helps your grade, whereas violating the rules and not being prepared hurts your grade. In general, for every point lost in Classroom Dojo equates to a loss of 1% off your total grade.

Materials: You will have access to an iPad on a daily basis. You may choose to use the iPad for taking notes. Many assignments will also be done on the iPad. You must also bring with you a writing utensil and a notebook. If you must borrow a writing utensil, then you will be required to give up a shoe or your cell phone as collateral.

Quieting: When the bell rings, you are expected to be quiet. The student(s) who violate this rule will lose points in Classroom Dojo. You are required to raise your hand if you have questions. Failure to do so will also cost you points.

Tardies: A tardy has occurred when the bell rings and you are not in your seat. You will also get a tardy if you attempt to line up at the door prior to the bell ringing at the conclusion of class. Not only will you receive a tardy, but you will also lose points in Classroom Dojo. The third tardy will cost you one hour of restitution and one hour per tardy after that. The fifth tardy will bring about a parent meeting. The sixth tardy will cost you 5 hours of restitution.

Absences: You are required to keep up on all your work, regardless of being absent. See late work policy below. School policy says that you are absent if you miss more than 15 minutes of class time. On the 5th absence parents/guardians will be notified. On the 6th absence, you will be required to make up time by attending restitution. As per district policy, after 10 absences you will lose all credit for the class.

Late work: You will have one extra day for each day you are absent to make up your work. After that, you will lose 10% on the assignment up to the 5th day. After the 5th day, your work will not be accepted and you will receive a zero on that assignment.

Extra credit: Only occasional extra credit will be given, such as during "Giving it back". You cannot use extra credit to make up for incomplete, late, or missing assignments. Extra credit will only be added to your final grade at the end of the quarter.

Leaving class: Leaving class is not allowed unless it is an absolute emergency or if you have been called to the office. You must carry a hall pass with you. You will be given two free passes per quarter. After that, you will lose credit in Classroom Dojo for each time you must leave class. Do not abuse this policy or you may not be allowed to leave class at all.

Disruptions: A disruption includes talking out of turn, talking back to the teacher, or doing anything that requires the teacher to stop instruction. For the first offense you will get a verbal warning, and it will cost you a point in Classroom Dojo. For the second offense, you will be excused from the class to meet with the vice principal, you will lose credit in Classroom Dojo, and it goes on your school record. For the third offense, you will meet with your parents and/or guardians and the principal, it goes on your school record, and you may be removed from the class.

- Cheating:** Cheating will not be tolerated. For the first offense you will receive a zero on that assignment and loss of points in Classroom Dojo. The second offense will result in an F for the quarter.
- Language:** School policy is to address teachers as Mr., Mrs., or Miss. Coach or principal is also acceptable. Swearing or vulgar language will not be tolerated. You will receive a verbal warning for the first offense and loss of points in Classroom Dojo. Multiple offenses will cost you more points, and you may be referred to the vice principal. Using the "F" word will result in your immediate suspension from school for one day.
- Classroom:** You are not allowed to sit on desks, putting feet on tables, throwing trash in drawers, sinks, or on the floor, or write on school property. If you violate these rules, you will lose credit in Classroom Dojo. The classroom must be cleaned up and put back in order prior to leaving class. Some classes will require the use of the laboratory. The same rules apply in the lab. Any violations will cost you points in Classroom dojo, and you will be required to cleanup after yourself.
- Electronics:** iPads will be used throughout this course. You will sign a care and use agreement before you are allowed to use the iPads. iPads are for school use only. You are not allowed to use the iPads without permission. The iPads are to be left on your desk at all times. The iPads may not be removed from the classroom. Cell phones must be on your desk in plain sight. We will use cell phones from time to time in class for specific activities. If you are caught using a cell phone at all, without permission, you will lose your cell phone and it will be given to the vice principal. Any violations will cost you points in Classroom Dojo. If you have your own tablet device or laptop that you would like to use in class, then please talk personally with the teacher to make proper arrangements to use these devices in class.
- Other rules:** Violating any of the following will cost you points in Classroom Dojo: Lining up at the door before the bell rings, asking the teacher "what are doing today?", forgetting to put your name, date, and period on assignments, not taking notes during class, changing seats without the teacher's permission, talking while the teacher is talking, violating the school dress code in any way, doing other work or reading in class while the teacher is teaching, falling asleep in class, eating food in class (bottled water is ok), not taking the class seriously, not being prepared for class each day, not pushing in your chair when you leave class, touching things in the classroom without the teacher's permission, doodling and drawing while the teacher is teaching, and not being respectful to the teacher and/or fellow students.
- Testing:** All testing for this course will be done online. The tests may be taken on any device that has the Internet. Tests may be taken at home or at school. If you do not have access to a computer at home, then please talk with the teacher. You may use school computers or iPads to take tests. Tests are also available in a written format if needed. All students must score 80% or higher on all tests. Students are required to retake tests until 80% is achieved. Students may only score 80% on a retake.