

HUMAN ANATOMY & PHYSIOLOGY I

BIOLOGY 2113(02)

Anoka-Ramsey Community College, Coon Rapids Campus
Lecture Syllabus – Spring 2012

Instructor: Shawn P. Magner, Ph.D. **Office :** Science 103
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Office Hours: 9:00 – 10:00 a.m. MWF
2:00 – 3:00 p.m. M
10:00 – 11:00 a.m. Th
(Or by appointment.)

Meeting Times: 12:00 p.m. – 12:50 p.m. MWF (Science 145)

Prerequisite: BIOL 1106 (minimum grade: 2.0 GPA equivalent)

Requirements:

Text: Saladin K.S. 2012. *Anatomy & Physiology: the unity of form and function*, 6th edition. McGraw-Hill, Boston. (**including access to A&P Connect - on-line activities**)

General Course Description:

Human Anatomy & Physiology I is an intensive, detailed study of body structure and function utilizing principles of chemistry, biochemistry, anatomy and physiology. The course includes the following topics: introduction to anatomy and physiology, tissues, integument system, skeletal system, articulations, muscular system, nervous system, special senses, and endocrine system. Laboratory work will include limited animal dissection. Three lecture hours and one three-hour laboratory per week. This course also satisfies the natural sciences requirements of the Minnesota Transfer Curriculum (MnTC) Goal Area 3.

Learner Outcomes:

At the conclusion of the course, you should be able to...

- define and describe terms used in chemistry and cell biology as they relate to anatomy and physiology.
- use terms in anatomy and physiology appropriately when discussing biological concepts.
- demonstrate the ability to synthesize, analyze, compare and contrast information regarding the human body.
- demonstrate the ability to solve problems in anatomy and physiology based on an accumulation of past and present learning.
- explain cellular and systemic physiological processes.
- demonstrate an understanding of physiological processes occurring in the body and their relationship to homeostasis.
- demonstrate an understanding of the interrelationships between body structures and functions and identify how they fit together.
- demonstrate the ability to access resources to gather information about the human body.

General Policies:

Expectations of Students: As part of the transfer curriculum, this course is held to the standards set forth by the Minnesota State College and University system. As such, the students in this course are expected to perform at a level equivalent to any student taking a MnSCU science course. In general, to receive an average grade, a student is expected to do a minimum of two hours of work outside of class for every hour in class.

Attendance: Class attendance is strongly encouraged. While it is not directly factored into your grade, your attendance will have an affect your final grade. If you are absent, it is your responsibility to get any information pertaining to the missed class period. While some course information will be available for you to download, it will not make up for additional information discussed during class. In addition, graded activities will be completed during some class periods.

Furthermore, it is expected that students arrive for lecture and lab on time. Students arriving late will not be given extra time to complete graded assignments, quizzes, or exams. Also, late students are expected to enter the classroom or lab with minimal disruption to the other students. This also applies to students who must leave early.

Grades will be assigned based on your total accumulated points from exams, quizzes, written assignments, reports, and miscellaneous activities from both the lecture and laboratory portions of the course.

To calculate your cumulative grade, points earned in lecture will comprise 70% of your final grade and points earned in lab will comprise 30% of your final grade. The following formula can be used to calculate your grade:

$$\begin{array}{rcl} \text{Lecture Total} & = & [(\text{Lecture pts earned/Possible points}) * 70] \\ + \text{Lab Points} & = & + [(\text{Lab pts earned/Possible points}) * 30] \\ \hline \text{Course Total} & = & \text{Course Total} \end{array}$$

Final Grades will be determined as a percentage of the total available points:

90-100%	=	A
80-89%	=	B
70-79%	=	C
60-69%	=	D
<60%	=	F

Grading Options: A non-letter or Pass/Fail grading option is available if you so wish. If you plan to take this course with the Pass/Fail option, please notify me within the first three weeks of the semester. However, once that decision is made, it will remain in effect for the rest of the course. Changes will not be made of any reason after Week 3.

Graded Material:

Exams: There will be four lecture exams worth 100 points each, plus a final exam worth 150 points. Each exam will be a combination of true/false, multiple choice, matching, short answer, and/or essay questions. The final exam will be similar to the first four, but with an additional 50 points of comprehensive questions added. The exams will be based on lecture material, assigned readings, as well other sources assigned by your instructor to support and enrich your study activity. Be sure to bring a #2 pencil with you to take the exams.

Quizzes: There will also be quizzes assigned throughout the semester. While some of the quizzes will be given in class, most will be given on-line through D2L and will be completed outside of class time.

Although the on-line quizzes are considered “open-book”, you will be given a time-limit to finish each quiz. You will have two chances to take each quiz, and you will be credited with the higher of the two scores. However, the quiz questions are randomly generated, so each attempt will be different. The quizzes will be given at intervals between the exams in order to give you the opportunity to review current concepts and remain up to date on older material. Furthermore, the quizzes will be completed individually, and any cooperation or group effort will be considered a breach of the *Academic Honesty* policy and will be treated as such. It will be your responsibility to take the quizzes as they become available on-line, as you will not be allowed to take the quizzes after they close.

Assignments: In addition to exams and quizzes, there will be a number of other assignments and classroom activities from which you will receive points. These activities may be individual or group projects. You will be given specific details of these assignments in class.

Keep all of your graded papers from both lecture and lab until the final grade for the course is given. It is your responsibility to be able to verify a grade if you believe there is an error in my grade sheet.

Make-Up Policy: Exams will be allowed to be made up, but **only** in the event of a prearranged excused absence (or a documented emergency or catastrophe). You will need to contact me verbally or by e-mail prior to the absence. In some cases, I will need verification of the reason for your absence. If a make-up is necessary and approved, it must take place within three school days of the originally scheduled date. Under no circumstances will more than one make-up exam be allowed during the semester. Make-up exams will very likely be different from the original exam.

Late Work: Assignments are due at class time on the day they are due. Work turned in after the class period will be considered late. Late assignments will be penalized 10% per day late. Electronic assignments are due as they are schedule, and as such, late assignments will not be accepted.

Electronics:

Laptop Computer Use: Laptop computers are acceptable for use in class. However, “use” is defined as activities pertaining directly to class, such as note-taking or class discussion. Any other use of a computer, such as game-playing, sending e-mails, or “surfing the net” during class is completely unacceptable.

Cell Phone Use: Cell phone use (voice or text) is not allowed in the classroom or lab. All phones should be turned **OFF** prior to entering the classroom or lab. If a situation occurs that may require emergency communication, please notify the other party in advance to contact you through the school (as would happen with any other unexpected event).

Any improper use of cell phones or computers during class, especially during exams, will be considered a breach of the policy on Standards of Student Conduct, and will be dealt with in the appropriate manner.

On-Line Activities:

Desire To Learn (“D2L”) is a web site that offers an electronic connection to the course. It is available from the ARCC homepage (D2L login”) or directly at <https://www.anokaramsey.edu/onlineProg/>. This site allows students access to electronic copies of the syllabus, lecture presentations, handouts, quizzes, and other material, illustrations, photos, web sites, etc. that will be helpful. It is a good practice to regularly check this site for information regarding the course. Grades will also be available on D2L. Much of the information on D2L is made available for use by the students outside of class time. It is a bonus and should be used as such. It should not be used as a substitution for attending class. It is still the responsibility of the student to get any information that may have been distributed during class.

Academic Honesty:

The college policy on the student Code of Conduct, as it appears in the Student Planner, will be followed in this course. Academic dishonesty is a flagrant violation of College policy, and includes but is not limited to cheating, plagiarism, forgery, and the unauthorized use of materials prepared by another person. The term cheating includes, but is not limited to:

- use of any unauthorized assistance in taking quizzes or exams; this includes any of the following:
 - looking at another student's exam, quiz, or assignment,
 - copying from another student's exam, quiz, or assignment,
 - knowingly allowing someone to copy your answers on lecture exams, quizzes or assignments,
 - informing other students of specific or general content on an exam or quiz,
 - willingly listening to specific or general content on an exam or quiz (if unreported by you to an instructor, you will be considered a willing participant),
 - using unauthorized written material or diagrams (e.g. cheat sheets), during exams,
- dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments.
- the acquisition, without permission, of tests or other academic material belonging to a member of the College faculty or staff,
- using exact or similar wording as that of another student, textbook, website, etc. on an assignment,
- having someone else complete your assignment or quiz that is not a group activity.

ARCC Biology faculty do not tolerate plagiarism or cheating on graded material. Therefore, any incidents of plagiarism, cheating or academic misconduct will result in a zero grade for that assignment, with no possibility of dropping that grade, and will be reported to the Dean of Student Services. Subsequent incidents will result in a non-passing grade for the course. Plagiarism, cheating and academic misconduct only degrades the learning experience and is unlikely to benefit you in the long run.

Lecture Schedule: The following schedule is tentative. The sequence of topics and exam dates are unlikely to change. However, if more time is needed to cover specific topics, the exact dates of subsequent topics may change. Any changes to this schedule will be announced in class or on D2L.

Dates	Topics	Text Ch.
1/9 – 1/13	Introduction, Body Organization, Homeostasis Histology: Terminology, Epithelial, Connective	1 (omit 1.3-1.4), Atlas A 5.1 – 5.3
1/16 – 1/20	(MLK Day, Monday 1/16 – No Class) Histology: Connective, Muscle, Nervous, Tissue repair Integumentary System	- 5.3 – 5.5 6
1/23 – 1/27	Integumentary System EXAM I (Friday, 1/27)	6 (1, 5, 6)
1/30 – 2/3	Skeletal: Terminology, Histology Skeletal: Development, Bone Growth	7.1 – 7.2 7.3 – 7.5
2/6 – 2/10	Skeletal: Development, Bone Growth, Repair, Disorders Skeletal: Articulations, Movement, Joint Biomechanics	7.3 – 7.5 9
2/13 – 2/17	Skeletal: Articulations, Movement, Joint Biomechanics EXAM II (Wednesday, 2/15) Muscular: Histology, Organization, Anatomy	9 (7, 9) 10.1
2/20 – 2/24	(Presidents' Day, Monday 2/20 – No Class) Muscular: Fiber physiology (Faculty Duty Day, Friday 2/24 – No Class)	- 11.1 – 11.4 -
2/27 – 3/2	Muscular: Fiber physiology Muscular: Whole muscle physiology, Metabolism	11.1 – 11.4 11.5 – 11.6
3/5 – 3/9	Muscular: Whole muscle physiology, Metabolism Muscular: Cardiac & Smooth Muscle EXAM III (Friday, 3/9)	11.5 – 11.6 11.7 (10.1, 11)
3/12 – 3/16	Spring Break (No Classes)	-
3/19 – 3/23	Nervous: Organization, Histology	12.1 – 12.3
3/26 – 3/30	Nervous: Potentials, Synapses & Neural Integration Nervous: Spinal cord	12.4 – 12.6 13.1 – 13.2
4/2 – 4/6	Nervous: Spinal cord Nervous: Brain	13.1 – 13.2 14.1 – 14.4
4/9 – 4/13	Nervous: Brain Exam IV (Wednesday, 4/11) Nervous: Autonomic Nervous System	14.1 – 14.4 (12 – 14) 15.1 – 15.4
4/16 – 4/20	Nervous: Autonomic Nervous System General Senses Hearing	15.1 – 15.4 16.1 – 16.2 16.4
4/23 – 4/27	Hearing [& Equilibrium] Vision	16.4 16.5
4/30 – 5/4	Endocrine System	17
5/7 – 5/11	EXAM V (Wednesday, May 9, 11:50 a.m. – 1:50 p.m.)	(15 – 17) + comp.