Fall 9-2004

SCN 119T.01: Human Anatomy and Physiology

Colin B. Henderson
University of Montana - Missoula, colin.henderson@mso.umt.edu

SCN 119T – Human Anatomy and Physiology **Autumn 2004**

Instructor: Colin Henderson Classroom: HB 01 Telephone: 243-7834

Class meeting times: Lecture: Monday, Tuesday, Thursday—8-10 am or 10
Laboratory: Wednesday, Friday—8-10 am or 10-12 am
Office hours: Tuesday, Wednesday 1:00 pm – 3 pm

Text: The text and lab manual are bundled in a package with free photographic atlas and online support:
Marieb, E. N. 2003. *Essentials of Human Anatomy & Physiology*, 7th Edition. Benjamin Cummings, San Francisco.
Marieb, E. N. 2003. *Essentials of Human Anatomy & Physiology Laboratory Manual*, 2nd Edition. Benjamin Cummings, San Francisco.

You may also wish to purchase one of the following as a supplementary atlas for the course. Although they are not in the bookstore, they are available through online booksellers:

Van De Graaff, K. M. and J. L. Crawly. 2003. *A Photographic Atlas for the Anatomy & Physiology Laboratory*, 5th Edition. Morton Pub., Englewood, CO.
Kapit, W. and L. M. Elson. 2002. *The Anatomy Coloring Book*, 3rd Edition. Benjamin Cummings, San Francisco.

SCN 119N - ANATOMY AND PHYSIOLOGY - COURSE POLICIES

Course Objectives:

This course will provide you with conceptual and practical information on the anatomy and physiology of the human organism. At the completion of this course, you should be able to 1) clearly understand the scientific terminology that is used to describe the structure and function of the human body, 2) demonstrate practical knowledge of human gross anatomy, 3) describe the normal function of different body systems, and 4) understand how structure and function are related in human beings.

Course Requirements:

There are no pre-requisites for enrollment in SCN 119N. The study of human form and function requires exposure to the material from a practical as well as a theoretical approach. Consequently, regular attendance at all lab and lecture meetings is required to successfully complete this course. The class is structured so that if you complete all assignments, with an appropriate level of effort, you can pass this course. This means that in addition to attending class, you must commit yourself to at least five (5) hours of intensive, individual study, plus an extra two to four hours in open labs each week. You must also accept the responsibility to ask questions if you do not understand the concepts. If absence from lab or lecture is necessary due to illness, it is your responsibility to obtain notes from another student.

Grading:
Your course grade will be determined by your performance in the lecture and lab, according to the following schedule:

Lecture Exam 1	40 points	Lab Exam 1	50 points
Lecture Exam 2	40 points	Lab Exam 2	50 points
Lecture Exam 3	40 points	Lab Exam 3	50 points
Final Exam	100 points	Quizzes	50 points
Total possible for Lecture	**200 points**	**Total possible for Lab**	**200 points**

In addition to regular exams and quizzes, there will be periodic assignments or lecture quizzes that will contribute an additional 3 percent toward your final grade. While this is a small percentage, these assignments if completed accurately and on time can make a difference in borderline totals.

Lecture and lab scores will be combined and final grades assigned as follows:

90-100%	A
80-89%	B
70-79%	C
50-69%	D
<50%	F

Examinations:
Notice that the lecture and the laboratory are each worth 50% of your final grade. Do not take either lightly. Midterms and lab practicals cover only the new materials presented since the previous exam. The lecture exams will be drawn from lecture and assigned reading. Lecture exams will be 40 multiple choice questions worth two and one-half points each. The final exam is comprehensive. Details of the final exam will be presented near the end of the semester. Laboratory examinations are based on the use of actual specimens, and therefore must be taken during the assigned laboratory time. The nature of the lab exams and quizzes will be covered in detail in your lab.

Make-up Exams:
Make-up exams and lab quizzes will only be given under extreme circumstances, and then only if: 1) permission is granted in advance by the instructor, or 2) a written excuse is provided by a medical practitioner. The burden of proof is on the student, so you must document and prove a justifiable excuse. No shows on the day of the exam will automatically be given a grade of 0. If you participate in university athletics or other activities, and must be absent from an exam, you must arrange for the makeup prior to your departure.

Dropping and Change of Grading Option:
University policies on drops, adds, changes of grading option (pass/no pass, audit) will be strictly enforced. These policies are described in the UM Catalog (www.umt.edu/catalog/acpolpro.htm). You should specifically note that after the 30th day of the semester, such changes are NOT automatically approved. They may be requested by petition, but the petition MUST be accompanied by documentation of extenuating circumstances. Requests to drop a course or change the grade basis to benefit grade point average will not be approved. The faculty senate guidelines concerning incomplete grades will be followed.

Student Conduct and Responsibilities:
Attention to critical dates for dropping this class is the student's responsibility. Students wishing to drop the class after the drop deadline will need a documented, justifiable reason for doing so. Dropping or change of grading option after deadlines for fear of a bad grade or to protect you GPA is not justifiable reasons. The principles and policies embodied in the Student Conduct code will be adhered to in this course.

COURSE SCHEDULE

(Chapter assignments refer to text; Exercises refer to Lab Manual)

Date	Topic	Assignment
AUG 30	First Principles: What is Anatomy? Body Systems.	
31	Chemical principles: the building blocks of life	Chapter 1, Ch. 2:36-48
SEP 1	**Lab 1**: Introduction; Language of Anatomy	Exercise 1; Ch. 1:11-17
2	Cells and tissues	Chapter 3
3	**Lab 1**: Introduction; Language of Anatomy	Exercise 1; Ch. 1:11-17
6	**LABOR DAY**	
7	Cells and tissues	Chapter 3
8	**Lab 2**: Cells and tissues	Exercise 5
9	Cell membranes; membrane potentials, molecular movement	
10	**Lab 2**: Cells and tissues	Exercise 5
13	Integument: tissues, anatomy	Chapter 4
14	Integument: function, repair	Chapter 4
15	**Lab 3**: Integumentary system	Exercise 6
16	Skeleton: bone tissue, cartilage, development	
17	**Lab 3**: Integumentary system	Exercise 6
20	Skeleton: growth, maintenance	Chapter 5
21	Skeleton: repair, adaptation, mineral balance	Chapter 5
22	**Lab 4**: Skeleton: skull & axial skeleton	Exercise 7, 8
23	**EXAM 1**: Introduction to skeleton.	Chapter 5
24	**Lab 4**: Skeleton: skull & axial skeleton	Exercise 7, 8
27	Muscle: tissue, development	Chapter 6
28	Muscle: anatomy of muscles, contraction	Chapter 6
29	**Lab 5**: Skeletal system	Exercise 7, 9
	LAB EXAM 1: Terminology to Axial Skeleton	
30	Muscle: neuromuscular junction; repair	Chapter 6
OCT 1	**Lab 5**: Skeletal system	Exercise 7, 9
OCT 4	Nerve: tissue, anatomy	Chapter 7
5	Nervous system: conduction, PNS	Chapter 7
6	**Lab 6**: Muscular system	Exercise 10, 12
7	Nervous system: CNS	Chapter 7
8	**Lab 6**: Muscular system	Exercise 10, 12
11	Nervous system: CNS	Chapter 7
12	nervous system - CNS	Chapter 7
13	**Lab 7**: Muscular system	Exercise 10, 12
14	Special senses - sight	Chapter 8

COURSE SCHEDULE

(Chapter assignments refer to text; Exercises refer to Lab Manual)

Date		Topic	Assignment
	15	**Lab 7**: Muscular system	Exercise 10, 12
	18	Special senses - smell, taste	Chapter 8
	19	**Lab 8**: Nervous system	Exercise 13, 15
	20	**EXAM 2**: Skeletal system to special senses	
		Endocrine system	Chapter 9
	21	**Lab 8**: Nervous system	Exercise 14
	22	Endocrine system	Chapter 9
	25	Endocrine system	Chapter 9
	26	**Lab 9**: Senses	Exercise 17
		LAB EXAM 2: Skeleton to nervous system	
	27	Blood	Chapter 10
	28	**Lab 9**: Senses	Exercise 17
	29	Blood	Chapter 10
NOV	1	Circulatory system	Chapter 11
	2	**ELECTION DAY**	
	3	**Lab 10**: Circulatory system	Exercise 20
	4	Circulatory system	Chapter 11
	5	**Lab 10**: Circulatory system	Exercise 21
	8	Circulatory system, Lymphatic system	Chapter 11, 12
	9	Pulmonary system	Chapter 13
	10	**Lab 11**: Pulmonary system	Exercise 23
	11	**VETERANS' DAY**	
	12	**EXAM 3**: Endocrine system to lymphatic system	
	15	Pulmonary system Fluid homeostasis (pH, electrolytes)	Chapter 13
	16	Urinary system	Chapter 15
	17	**Lab 12**: Urinary system	Exercise 26
	18	Urinary system	Chapter 15
	19	**Lab 12**: Urinary system	Exercise 26
	22	Fluid homeostasis (pH, electrolytes)	Chapter 15
	23	**Lab 13**: Digestive system	Chapter 14
	24	**THANKSGIVING**	
	25	**THANKSGIVING**	
	26	**THANKSGIVING**	

COURSE SCHEDULE

(Chapter assignments refer to text; Exercises refer to Lab Manual)

Date	Topic	Assignment
29	Digestive system	Chapter 14
30	Digestive system	Chapter 14
DEC 1	**Lab 14**: Reproductive system	Exercise 27
2	Reproductive system – male	Chapter 16
3	**Lab 14**: Reproductive system	Exercise 27
6	Reproductive system – female	Chapter 16
7	Reproductive system – fertilization	Chapter 16
8	**LAB EXAM 3**: Senses to reproductive system	
9	Reproductive system - gestation	Chapter 16
10	Development	Chapter 16
DEC 14	**FINAL EXAM (SEC 02); Tuesday, 8:10 – 10:10**	
DEC 17	**FINAL EXAM (SEC 01); Friday, 8:10 – 10:10**	