

BIOLOGY 212: HUMAN PHYSIOLOGY

SPRING 2005 COURSE SYLLABUS

Instructor	Dr. Sheldon J. Cooper HS 153, Phone 424-7091, E-mail: cooper@uwosh.edu Office Hours: M 1500 – 1600, R 1100 – 1200 (also by appointment)
Lab 1,4 Instructor	Dr. Margaret Beard, HS 255, E-mail: beard@uwosh.edu Office hours to be announced at first lab meeting
Lab 6 Instructor	Dr. Memuna Khan, HS 157, E-mail: khanm@uwosh.edu Office hours to be announced at first lab meeting

Timetable

Lecture	M W	1350 - 1450	HS 109
Lab 1	T	0940 - 1140	HS 120
Lab 2	T	1320 - 1520	HS 120
Lab 3	W	1500 - 1700	HS 120
Lab 4	R	0940 - 1140	HS 120
Lab 5	R	1320 - 1520	HS 120
Lab 6	F	0800 - 1000	HS 120

Textbook and Materials for the Class

REQUIRED: Seeley, R. R., T. D. Stephens, and P. Tate 2003. *Anatomy & Physiology, 6th edition.* McGraw-Hill, New York.

REQUIRED: Cooper, S. J., and D. K. Vaughan. 2005. *BIO 212 Human Physiology Course Handbook.* UW-Oshkosh.

RECOMMENDED: A pocket medical dictionary.

Prerequisites

There are two prerequisites for BIO 212. BIOLOGY 105 "Introductory Biology: Unity". Based on this course, you are expected to ALREADY KNOW MOST of the material covered in the Physiology textbook in chapters 2 and 3. This would include basic biochemistry (the nature of proteins, carbohydrates, lipids, and nucleic acids; anaerobic and aerobic respiration), basic cell biology (the parts of the cell and their functions), and basic genetics (how DNA instructions are converted to a protein product). Do not expect your Instructor to review it.

BIOLOGY 211 "Human Anatomy". Based on this course, you are expected to already know the general anatomical arrangement of the organ systems of the body. Do not expect your Instructor to review it.

Students With Disabilities

Students with disabilities are welcome in this course. Please contact your lecture and lab instructors in the first week of class so that we may arrange all possible accommodations.

Academic Honesty Policies

Policies are clearly defined at this institution and will be followed. Cheating on an exam or quiz (including looking at someone else's paper) leads to an "F" on that exam or quiz.

Course Goals

Biology 212 is an INTRODUCTORY course. Introductory courses are HARD. It's hard to learn new concepts (as opposed to adding to old ones). Also, physiology builds on itself. What you learn today, you will use again and again; so you can't forget anything. Fortunately, themes and mechanisms repeat again and again in the body. Your Instructor will make every effort to point out repeating mechanisms, but you must do your part to study them and to learn to recognize them yourself.

In addition this being an "intro" course, we will cover the entire human body in just one semester. Therefore, we can't possibly cover all the details. Instead, our "big picture" goal is to have you acquire a knowledge base to which you can add more advanced physiology when the time comes. Toward this main goal, our *specific* objectives are:

- 1) To understand the central physiological principle of **homeostasis**
- 2) To understand physiological **systems integration**
- 3) To understand physiology on **molecular to organ system levels**
- 4) To build physiology **vocabulary skills**

Course Expectations

BIOLOGY 212 is required for two different programs at UW Oshkosh: pre-Nursing and Physical Education. Our duty in this course is to prepare each student for further physiology education: pathophysiology and pharmacology for Nurses and exercise physiology and biomechanics for Phy Eds. BIO 212's content and difficulty, AND the format of its exams, were EXAMINED AND APPROVED by Nursing and Phy Ed faculty in Summer 2002. Our concern, and the concern of those programs, is that each 212 student have the opportunity for quality preparation leading to successful licensing in his/her chosen field. Because of time constraints (just four hours of class time per week), BIO 212 cannot cover the physiology of reproduction, infants and children, the elderly, or disease -- even though these topics are covered in depth on the Nursing Boards. You will have opportunity in the future to take classes on some of these topics, but others will have to be studied ON YOUR OWN. Another goal for 212 is to prepare you for this independent work. Requiring you to BUY-READ-AND-KEEP a quality textbook that you use is one way that we address this goal.

Tentative Lecture and Laboratory Schedule (The topic order is firm. However, we may go faster or slower in lecture than the schedule indicates.)

Date	Lecture Topic	Text Chapter	Lab Topic	Lab Quiz
01-31 02-02	Intro. & Physiol. Fundamentals Intracellular Homeostasis	1 2, 27	Hematology	
02-07 02-09	Blood Cardiovascular System	19 20	Heart Rate & Blood Pressure	1
02-14 02-16	Cardiovascular System Respiratory System	21 23	ADAM: Cardiac Function ECG Measurement	2
02-21 02-23	Respiratory System Nervous System	23 11	Respiratory Function	3
02-28 03-02	Nervous System Exam 1	11	Membrane Potential, EEG, and Sleep	4
03-07 03-09	Nervous System Nervous System	14 16	Reflexes Special Senses	5
03-14 03-16	Spring Break Spring Break		No Lab - Spring Break	
03-21 03-23	Sensory Mechanisms Sensory Mechanisms	15 15	Brain Function	6
03-28 03-30	Endocrine System Endocrine System	18 18	Endocrine Pathways	7
04-04 04-06	Skeletal System Exam 2	6	ADAM: Skeletal Muscle Muscle Function	8
04-11 04-13	Muscular System Muscular System	9 9	Urinalysis ADAM: pH balance	9
04-18 04-20	Muscular System Osmoregulation	9 26	Immune System	10
04-25 04-27	Osmoregulation Digestion	26,27 24	Blood Typing	11
05-02 05-04	Digestion Immune System	24 22	Digestion	12
05-09 05-11	Immune System Exam 3	22	No Lab (Last Week of Class)	

During lecture hours, your Instructor will talk about the topics shown in the Schedule of Activities above. Please feel free to stop your instructor to ask questions. Lectures will cover material in the text, but may also include outside material. Your lecture notes are of vital importance. Anything said in lecture could appear on an exam. If you miss a lecture, you should arrange to borrow another student's notes. In order to do well in this course, expect to spend 2-3 study hours per 1 lecture hour as you would in all of your college courses.

About Lab

You should plan on lab taking the full 2 hours each week. Do not register for this course if you have a class or work conflict with the lab. Lab exercises have been designed to supplement and/or reinforce concepts taught in lecture.

Lecture Exam/Lab Quiz Policy

Bring and have ready a PHOTO ID to each exam. The exams will not be handed out until your Instructor is satisfied with the seating arrangement and the room is quiet.

You will be present for every scheduled exam. No one should even *think* about missing an exam for any but the most extreme emergencies (*e.g.*, grievous illness or injury, death of a loved one). *If* such an emergency should arise, *if* you **notify** me of your intended absence **before** the start of the exam or immediately thereafter, and *if* your excuse is **documented** (hospital paperwork, obituary, etc.), then and *only* then will you be allowed to take the **comprehensive make-up exam** scheduled for Friday, 13 May 2005 in HS-120. ***This is the only opportunity to make up a missed exam, and will only be allowed if the above conditions are met. If you miss an exam and these conditions are not met, you will receive a zero for that exam.*** The sole exception is that which I am required to provide to athletes and others engaged in *official university activities*. Such students should identify themselves to me immediately, and provide me with documentation from the pertinent faculty sponsor or coach, in order to make other arrangements.

Lab quizzes will be given during the first 15 - 20 minutes of each lab. If you are late to lab you will not be allowed to make up the quiz. Your lowest quiz score will be dropped from your grade.

Point Allocation in the Course

Assignment	Points
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Exam 1	100
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Exam 2	100
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Exam 3	100
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Quizzes	220
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(11 x 20 pts. each,
drop lowest quiz)

Total Points = 520

Grading

Total Points	Percentage	Grade
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476 - 520	92 - 100	A
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450 - 475	87 - 91	AB
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424 - 449	82 - 86	B
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398 - 423	77 - 81	BC
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372 - 397	72 - 76	C
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346 - 371	67 - 71	CD
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310 - 345	60 - 66	D
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< 310	< 60	F
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Due to privacy concerns, I will NOT (1) post grades, (2) give grades out over the phone, or (3) reveal grades in phone messages.

I WILL (1) mail your grade using a stamped, self-addressed envelope that you give to me ahead of time, or (2) reply to an e-mail inquiry that is from your published CAMPUS listing.