

BY 116-1D & 2B Human Physiology

EB 126, MWF from 11:00 – 11:50 AM

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Office Hours: MWF. 1:30 PM – 2:30 PM
T/ TH. 11:00 AM – 12:00 PM
Prearranged Visit Upon Request

Office Hours: TBA

Required Text *Human Physiology: an integrated approach* 4th Ed.

D. U. Silverthorn, Prentice Hall, New Jersey

Human Physiology Laboratory Manual, Odom and Wibbels, Outernet Publishing

Study Guide Student Workbook, Silverthorn (optional and Recommended)

Class Web Site: <http://main.uab.edu/show.asp?durki=25078>

Text Web Site www.prenhall.com/silverthorn

COURSE DESCRIPTION: We will examine Human functions in a systemic fashion. We begin with a hierarchal organization of living matter followed by cellular physiology and then progress through each physiological system. The course emphasizes requirements of human life consistent with anatomical constraints, maximal and minimal adaptive ranges, sequential and step-wise processes in achieving functional goals along with the internal and external influences that force and regulate physiological adaptability. Knowledge in human physiology is best gained through visualization and expression of processes based in a Real Time and comprehensive **MODEL**. Therefore, students should dedicate their studying toward mastery of Factual Comprehension, Meaningful Concepts, and Critical Thinking to Solve Problems. Additionally, students will benefit and be evaluated on abnormal physiology as from this vantage point our full comprehension of the system and its importance crystallizes.

LECTURE: (75% Total Grade) Lectures will primarily follow the text. There will be additional information provided as notes, handouts, imagery, and occasional discussion questions. My goal is to provide the necessary information about the physiological systems that enables students to comprehend the complexity of our bodies and their workings. Template outlines for each chapter are available on my web site (see above for address) and are intended solely as additional aids to help you better acquire the course material. Online materials are not a replacement for lecture attendance and students are not required to use them if they wish not to. PowerPoint slides **WILL NOT** be made available to students. All materials found on the web site are intended to aid you and is **NOT** a contract of any kind between the student, the instructor or UAB. The student will be responsible for any missed lecture material by obtaining notes from peers and referencing the text. I am able to assist you should you have questions beyond those efforts. I invite and look forward to constructive questions from you the student during lecture as I feel it enhances our interest and understanding. During lecture, direct your question toward a better understanding of the course material and not toward administrative practice or the evaluative process as these are individual pursuits and will be discussed at my office as such.

LABORATORY: (25% Total Grade) A critical component to physiology is the collection of data, data analysis, and data interpretation. The laboratory component is designed to give students an in depth, practical understanding of concepts covered in lecture. Your participation and attendance is required for all laboratory exercises. The student gains the most benefit from review of lab exercises prior to lab meeting and an attentive participation. A more detailed description of Lab policy and evaluation will be covered at the first laboratory meeting.

EXAMS & GRADING

Lecture Exams All lecture material, handouts, class discussions and assigned reading necessary to achieve mastered understanding of course **Objectives** are subject to evaluation. All exams are comprised of various question formats dominated by multiple choice, matching and true-false but fill in the blank, short answer and essay are occasionally used. You will need a lead number 2 pencil for the lecture exams. **Four (4) Unit** exams are scheduled for this course comprising approximately 5 to 7 chapters of text over ~4 weeks of lecture. The primary focus of each exam is the SINGLE UNIT material but may contain topics from ANY PREVIOUS UNIT. All exams take place on Regular Lecture Days and in the same Lecture Room. The Exact Date and Material Coverage Are **ANNOUNCED** in Class and posted on the class web site. Students will have only the lecture time to complete the exam **unless** the student has official UAB documentation through the office of Disability Student Services. All Students with such documentation are responsible to inform the instructor of arrangements prior to **EACH** exam. Tardiness on testing days may result in either a zero grade or makeup exam as **No one** will be allowed to participate in an exam once the first student has returned the exam. This has typically been about 30 minutes past the exam start time. The **Final Exam** is a **voluntary, comprehensive, bonus test** that may increase the **LECTURE AVERAGE** by at most 5 percent.

Makeup Exams

Makeup Exam REQUESTS will **NOT** be considered unless a University Approved excuse is submitted (**Health** of self or immediate family, Family **Death**, **Crisis** circumstances, **University** Sponsored Events) with the **Request for Makeup Form within 1 Week of the missed requirement.** The Excuse **MUST** be an **ORIGINAL** Proof and **INCLUDE a CONTACT NAME, TELEPHONE NUMBER, AND ADDRESS** for verification. The Instructor determines the Excuse authenticity and then informs the student **Within 2 WEEKS of Submission** if their Request will be **Granted or Denied.** Requests for Makeup that are **Fraudulent or Denied** results in a **Zero** score on the required evaluation.

At least two **end of the semester** optional dates are made available for those Granted requests to be made up. **Exact Dates, Times, and Location are Announced in class and by Blazer email the week of Nov. 12th - 16th.**

Failure to provide a verifiable excuse in the time allowed or failure to make up the evaluation during the optional dates will result in a Zero score for the missed course requirement. No more than **1 makeup exam for each student** is permitted unless extreme, extenuating circumstances prevail. Any Student granted a makeup that cannot PASS the course even with a score of 100% on the makeup IS NOT allowed the Makeup Attempt.

Makeup exams cover the same material but are constructed from different questions and formats as that of the **REGULARLY Scheduled class Exam.** No early exams are permitted regardless of circumstance and no makeup is available for the BONUS Final Exam.

Grading

Any Student failing either the Lecture or Lab will Fail the Course. The lecture component is calculated by averaging the four unit exams and adding the amount of bonus achieved from the final exam. This is the **Lecture Average**, which then is converted to a decimal and multiplied by 75. The laboratory component is calculated by summing all points earned and dividing by 480 This is the **Lab Average as a decimal**, which then is multiplied by 25. The **Course Average** is the sum of the Lecture component plus the Laboratory component. Final Letter grades are assigned based on the following:

100 - 89.45% (A), 89.44 - 79.45 (B), 79.44 - 69.45 (C), 69.44 - 59.45 (D), 59.44 and below (F).

Example: Exam Avg. = 73%, bonus final = 75%, Lab Avg = 88%

Lecture = $((73 + (0.75 \times 5)) \div 100) \times 75 = ((73 + 3.75) / 100) \times 75 = 0.768 \times 75 = 57.56$

Lab = $(88/100) \times 25 = 0.88 \times 25 = 22.0$

Course Avg. = Lecture. + Lab = $57.56 + 23.25 = 79.56$ (B)

Without the Bonus: Lecture = $0.73 \times 75 = 54.75$; Lab = 22.0; Course Avg. = $54.75 + 22.0 = 76.75$ (C)

ADDITIONAL INFORMATION

Class Conduct. Students are expected to conduct themselves in accordance with UAB policy covering Academic and Non-Academic conduct as set forth in the Catalog of undergraduate programs pages 45 – 47 and in UAB's *DIRECTIONS* supplement. Failure to adhere to UAB student conduct policies will result in the appropriate notification and disciplinary action if necessary. Please, at all times be respectful other students and the Instructor in every way possible. In the large lecture setting, disruptive conduct may go unnoticed by the lecturer and therefore, I ask students to notify me of any disruptive behavior.

Participation - No individuals (including children) not registered for the course are allowed admittance during regular lecture unless the Instructor grants prior approval. Under No circumstances are individuals (including children) not registered for the course allowed admittance during Exams.

Electronic Media - Only restricted Emergency use is permitted for cell phones and/or pagers during regular lecture. Cell phone and/or Pager ringers are to be **set on Vibrate or turned off**. During examinations, electronic devices are prohibited and should not be brought to the testing period.

Class discussions are restricted to the lecture topics and occur such that all students may benefit. I invite and look forward to constructive questions from you during lecture as I feel it effectively enhances our discussions. However, please refrain from asking diagnostic questions concerning self or others as I am not a medical physician and would be legally negligent if I were to render any diagnosis and or treatment suggestions. Additionally, questions should aim toward enhancing the Course Topics and not Course Administration. If you have questions about administrative policy, please schedule an Appointment.

Recording of lectures is restricted to audio only and students are responsible for all technical procedures and use. Recorders not retrieved after class are Left in the lecture room.

PowerPoint presentations used in lecture are the sole property of the Instructor and available for viewing ONLY during the lecture presentation.

Fairness and Treatment - The instructor implements all administrative policies and reserves discretionary freedom. Policies are strictly adhered to in effort to optimize the Learning Environment and provide equal opportunity and impartiality for student Achievement. There will be NO **preferential treatment** such that any student gains benefit while their classmates are without same benefit.

Office Visits – Regular office hours is the ONLY time Unannounced visits will be attended to. All meetings outside of Regular Office Hours will need be requested NO LESS than 24 hours in advanced and have previous Agreement to by the Instructor. All student questions and concerns are important and given serious consideration. Impromptu questions and concerns following lecture is to be avoided as this does not allow ample time to give it the serious consideration for which it deserves.

Severe Weather announcements concerning UAB closings and class cancellations may be obtained by calling the instructor's office voice mail (934-3526) and listening to the announcement or by tuning and listening to 90.3 FM WBHM.

Students officially registered with **Disability Student Services** are required to submit their paperwork to the Instructor at the beginning of the semester. DSS users are responsible for scheduling with both the Instructor and the DSS office, 2 Days in advance, the arrangements agreed upon prior to **EACH** required evaluation. Failure to make arrangements voids any previous agreed to assistance.

This syllabus is not All inclusive of policies that may apply to the course and the instructor reserves discretionary authority on course policies.

BY116-1D LECTURE SCHEDULE

All Subject to schedule changes and announced during lecture

Date	LECTURE TOPICS	LABORATORY
Week 1 Aug 23	CH 1 Introduction to Physiology Concepts	No Lab
Week 2 Aug. 27 – 31	CH 2 Biomolecules Molecules CH 3 Cells and Tissues	Simple Diffusion / Osmosis
Week 3 Sept 4 - 7 Labor Day Sept. 3	CH 5 Membrane Exchange CH 4 Cellular Metabolism No Class Sept. 3	Carrier Mediated Transport
Week 4 Sept. 10 - 14	CH 4 Cellular Metabolism Cont. Appendix C - Genetics	Quiz 1 Resting and Action Potentials
Week 5 Sept. 17 - 21	CH 6 Control of Cellular Physiology Exam 1 (material and Date TBA)	EEG and Rx Times
Week 6 Sept. 24 - 28	CH 7 / 23 Endocrine Organs and Reflexes	Lab Exam 1
Week 7 Oct. 1 - 5	CH 8 Concept of Nervous Signaling CH 10 – Sensory Information Pathways	Sensory Perception
Week 8 Oct. 8 - 12	CH 9 CNS – Higher Nervous Functions	EMG & Motor Unit Recruitment
Week 9 Oct. 15 - 19	CH 11 – Motor Information Pathways Exam 2 (material and Date TBA)	Lab Quiz 2 EKG & Frog Cardio Phys
Week 10 Oct 22 - 26 Withdraw deadline Oct. 22rd	CH 12 / 13 Muscle Physiol.	BP & Cardiovascular Dynamics
Week 11 Oct. 29 - Nov. 2	CH 14 – 16 Cardiovascular Systems	Lab Exam 2
Week 12 Nov. 5 - 9	CH 25 Immune Response Exam 3 (material and Date TBA)	Pulmonary Physiology
Week 13 Nov. 12 - 16	CH 17 - 18 Pulmonary Physiol. CH 19 Renal Phys	Exercise Physiology
Week 14 Nov. 19	CH 20 Fluid Balance	Thanksgiving Day Holiday Nov. 21 – 25 No lab or Class
Week 15 Nov. 26 - 30	CH 21 – 22 Nutritional Physiol. / Energy CH 25 Exercise Physiology	Comprehensive Lab Final Exam
Week 16 Dec. 5 – last Class Meet	Exam 4 (material is TBA)	Weather Day Dec. 6
Final Exam Week Sec. 2B – Tue. Dec. 11 Sec. 1D – Fri. Dec. 7	Comprehensive Bonus Final Sec. 2B - Begins at 8 AM Sec. 1D – Begins at 10:45 AM	NO LAB

Final Course Grades can be Obtained on UAB ACCESS Dec. 18th

