

Medical Physiology

Course Description

The faculty and staff of the Physiology Department welcome you to Medical Physiology 100. We hope that your efforts to learn physiology will equal our efforts to teach you this important subject. Our overall aim is to help you acquire a thorough knowledge and appreciation of the function and control of normal organs that will serve as a basis for your understanding of clinical medicine. E.A. Starling, the famous physiologist of the early 20th century, said "The physiology of today is the medicine of tomorrow." The faculty of the Physiology Department will make a serious effort to demonstrate the veracity of this statement.

Attendance

Attendance is required to all of the course activities, including: lectures, laboratory exercises, conferences, demonstrations, and examinations. Attendance may be taken during all course activities.

Course Instructors

Instructor	Building	Office	Telephone	email address
Michael G. Levitzky, PhD (Director)	MEB	7252	568-6184	mlevit@lsuhsc.edu
Harvey I Miller, PhD (Co- Director)	MEB	7227	568-6177	hmille@lsuhsc.edu
William M. Chilian, PhD	MEB	7205	568-6172	chilian@lsuhsc.edu
Kathleen McDonough, PhD	MEB	7265	568-6197	kmcdon@lsuhsc.edu
Patricia Molina, MD, PhD	MEB	7250	568-6187	pmolin@lsuhsc.edu
Lisa M. Harrison-Bernard, Ph.D.	MEB	7213	568-6175	lharris@lsuhsc.edu
Jimmy Cairo, PhD	N/AH 6th floor		568-4235	jcairo@lsuhsc.edu
Johnny Porter, PhD	DS	6413	619-8541	jporte@lsuhsc.edu
Betsy Giaimo	MEB	7248	568-6178	mgiaim@lsuhsc.edu
Graduate Assistant	MEB	7F3	568-6179	
Physiology Main Office	MEB	7205	568-6171	

GRADING PROCEDURES AND EXAM SCHEDULE

Lectures

Lectures are designed to introduce the student to a specific topic of physiology. Lecturers may integrate recent advances in the field into their lectures; some of this material may not yet be found in textbooks. Other instructors may use a more classical approach. Often you will find a combination of these two approaches. In any event, the information obtained in lectures should be supplemented with reading from the text. Because of time restraints, questions during a lecture are not recommended. Questions may be answered between lectures or in the lecturer's office.

Laboratory

There are several aims of the laboratory exercises in physiology: the laboratories will enable you to acquire additional information that will help you to better understand some of the lecture material and related subjects. Laboratories will furnish you with the very valuable experience of working with living tissue and developing manual dexterity. They will also demonstrate the biological variability that is an important aspect of clinical experiences. Participation in laboratory exercises will enable you to evaluate and draw conclusions from data, and in general, become familiar with methods of obtaining information in a biological system. These experiences will help you in the future to evaluate claims concerning new methods of therapy and will also enable you to read the scientific literature more critically. Each student is required to have the surgical instruments listed in the lab notebook at each laboratory exercise. You must wear a lab coat during all lab exercises and you must wear your name pin or tag with your name printed on it. **YOU MUST WEAR GLOVES DURING ALL ANIMAL EXPERIMENTS.**

Organization of Laboratory Exercises and Conferences

Your participation in laboratories and conferences will be in small groups. The entire class will be divided into groups of four to five students. These groups of students should be able to work together in a spirit of cooperation in order to complete the lab assignments most efficiently and accurately. At the end of each lab period, each student will hand in the data sheets with all calculations. All questions should be answered. Failure to hand in the lab reports will result in a loss of some part of the laboratory grade. Missing a laboratory session will also result in a loss of some part of the laboratory grade; attendance is taken at all laboratory exercises.

Grades

All of the examinations (see schedule on following page) will be given in the MDL Laboratories.

Grades for each examination may be curved (only if necessary) by adjusting the raw scores by well-established statistical procedures. Adjusted numerical grades will then be posted. If your performance on any of these examinations is below passing or just borderline, you will be notified by the Course Director and possible remedies (tutoring, etc.) will be suggested for upgrading your performance.

Examinations

There will be four sectional examinations prepared by our faculty and a final examination prepared by the National Board of Medical Examiners. The four departmental examinations will include multiple choice type questions, similar to those found on the National Boards. All aspects of the course, including lectures, laboratories, demonstrations, and clinical correlations, will form the basis for each departmental examination. There will be questions on the clinical correlations on each examination.

2004 Examination Schedule

All exams are scheduled in the MDL Labs, 4th floor MEB.

Exam#	Date	Time	Lectures Included From – Through	Labs Included From - Through
I	Mon. Feb 9	9:00 am	1/12 - 2/6	1/12- 2/6
II	Mon. Mar 15	9:00 am	2/11 - 3/11	2/11 - 3/11
III	Mon. Apr 19	9:00 am	3/16 - 4/15	3/16 - 4/15
IV	Fri. May 14	9:00 am	4/21 - 5/ 13	4/21 - 5/13
Final	Fri. May 19	8:00 am	Cumulative National Board Shelf Exam	

Final Grade

The cognitive evaluation of the entire course will constitute 95% of the course grade and will be computed as follows:

Each sectional examination will represent 17.5% of the final grade.

The final examination will represent 25% of the final grade.

The final 5% of the grade will be made up of laboratory performance and participation in all aspects of the course. An unexcused absence from laboratory or failure to hand in a lab report will result in a loss of 1.0% of the final grade for each instance. If the laboratory report is handed in late there will be a loss of 0.1% per day off the final grade, up to a total of 1% for each lab.

Attendance may be taken at each lecture. A bonus credit of 1.0% will be added to the final grade of those students who attend 90% of those lectures where attendance was taken. A bonus credit of 0.5% will be added to the final grade for those students who attend greater than 50% of those lectures.

The final grades will be calculated as follows:

H	>	91
HP	=	86-90
P	=	75-85
F	<	75

Remediation

In the unlikely event that it becomes necessary to remediate a failure in Physiology, a student must pass an approved summer medical physiology course before the next semester begins.

Ethical Considerations

Although almost all Medical and Graduate students are honest and abhor cheating, there are a few who might consider it. The Department of Physiology will not tolerate such antisocial behavior. Therefore, we along with the other Basic Science Departments, have agreed on the following policy:

It is expected that all students will maintain a high standard of honesty. During examinations, any verbal or written communication will be with the examination proctors only. If the proctors feel that your actions suggest that you are copying answers from another student or are engaged in similar acts of cheating, their responsibility is to seek other witnesses and gather all available evidence in an attempt to determine whether or not you are cheating. You will therefore not be warned, confronted or moved during the examination. Because no material (including calculators) are allowed at your examination seat, any extraneous material seen in your possession will be confiscated. Refusal to give such material to proctors upon their request will be construed as an attempt to cheat. In all cases, you will be allowed to finish the examination.

In addition, signing an attendance sheet for someone else will be considered an act of cheating and will be dealt with in the same manner.

Summer Research

Those medical students interested in doing research in the Department of Physiology during the summer should contact Dr. Harvey Miller during the first week of the course in order to determine what areas of research are being performed in the department and what fellowships are available.

The Department of Physiology hopes that your experience with Physiology will be both successful and rewarding.

TEXTBOOKS

Physiology 100 consists of lectures, laboratory experiments, demonstrations, clinical correlations and conferences. To both complement and supplement these activities we require the purchase of

Medical Physiology by Boron and Boulpaep. Reading assignments will come from this required text.

Two other texts, written by course faculty members, are recommended:

1. Pulmonary Physiology , 6th ed. – Levitzky (Lange/McGraw-Hill)
2. Endocrine Physiology – Molina (Lange/McGraw-Hill)

If you find that a different comprehensive physiology text is better suited for you, by all means use it in addition to the recommended texts. Both the bookstore and the library have been alerted so that monographs will be available.

3. Our laboratory manual, " Experimental Physiology," which was written by the faculty, is required for the laboratory section of the course and can be downloaded from the departmental site. The schedule and course description should be brought to the first class.

URL: www.physiology.lsuhsu.edu/courses.html Click on Medical Physiology. You must enter lsumc-master\logon id and your password.

Check this site out as a possible reference for the ECG part of the course:

<http://www.fammed.wisc.edu/pcc/ecg/index.html>

Several computer programs are available for additional instruction.

Interactive Electrocardiography ECG. A software product. (CD-ROM). Scheidt S, Meyers JH, Netter FH: Moorestown, NJ, Ciba Medical Education and Publications (Novartis), 1996. Available through the Physiology Department on request.

A.D.A.M. Interactive Physiology, 7 modules. All seven Interactive Physiology modules — Cardiovascular System, Muscular System, Respiratory System, Nervous System Urinary System, Fluids & Electrolytes and Nervous II. One copy. Available through the Physiology Department on request.

A.D.A.M. Interactive Physiology, 3 modules. Three Interactive Physiology modules — Cardiovascular System, Muscular System, Respiratory System. 12 copies. Available through the CAI office on request.

SimNerv. Thieme Interactive. Available through the Physiology Department on request

SimBioSys Physiology Labs. Version 2, Critical Concepts. Available through the Physiology Department on request.

Cellular Mechanisms in Cardiac Physiology. Andromeda Interactive. Two-disc set. Available through the CAI office on request.

Acid Base Disorders. Available through the CAI office on request.

Physiological Origins of Heart Sounds and Murmurs. Available through the CAI office on request.