

BMS 6520 SYSTEMIC PHYSIOLOGY

SYLLABUS 2006-07

Course Faculty

Course Director (Lecturer and Small Group Facilitator):

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Course Description and Components

The course serves several important purposes: 1) to review and emphasize key physiological principles from Organ Physiology (BMS 6511; 1st year physiology course), 2) to introduce advanced, clinically relevant physiological concepts, and 3) to integrate selected physiological principles at the organ systems level with information from pharmacology and pathology.

Systemic physiology is a 2 credit hour course that consists of 18 hours of lecture/large group sessions and 12 hours of small group/case sessions. The lectures/large group sessions are designed to illustrate the selected key concepts and allow time for questions and discussion. Small group sessions will consist of a number of clinical cases. Specific objectives will accompany each lecture/large group session handout.

Course Objectives and Goals

Broad Educational Goal: Provide integrative learning in Physiology in the context of Pharmacology and Pathology.

Knowledge

1. Demonstrate the application of the scientific bases of health, disease, and medicine to common and high impact medical conditions in contemporary society.
2. Describe the function of the healthy human body and each of its major organ systems at the macroscopic, microscopic, and molecular levels.
3. Recognize and discuss the implications of altered structure and function (pathology and pathophysiology) of the body and its major organ systems that are seen in various diseases and conditions.
4. Identify changes in the function of the human body associated with the aging process and be able to distinguish normal changes associated with aging from those that denote disease.
5. Demonstrate the ability to use basic biobehavioral and clinical science principles to analyze and solve problems related to the diagnosis, treatment, and prevention of disease.

Skills

6. Demonstrate the ability to evaluate the patient's medical problems and to formulate accurate hypotheses to serve as the basis for making diagnostic and treatment decisions.
7. Demonstrate the ability to acquire new information and data and to critically appraise its validity and applicability to one's professional decisions, including the application of information systems technologies for support of clinical decision-making.

Attitudes/Behaviors

8. Demonstrate professionalism and high ethical standards in all aspects of medical practice, specifically competence, honesty, integrity, compassion, respect for others, professional responsibility and social responsibility.

The Systemic Physiology Objectives relate to the FSU COM competencies as follows:

FSU COM Competency	Physiology Objective
Professional Values, Attitudes, Behaviors	
Moral Reasoning	8
Communicating with Patients, Families & Colleagues	
Application of Basic Biomedical & Behavioral Sciences	1,2,3,4
Essential Clinical Skills	6
Problem Solving & Critical Thinking	5,6
Lifelong Learning & Information Management	7
Social, Cultural, Community Context of Health, Illness & Care	
Personal Awareness	
Organizations, Systems, and Quality Improvement	

Course Schedule

Check times for course events in the course master schedule. The most recent updated schedule can be found at the Blackboard Web Site (<http://campus.fsu.edu>) or on the Outlook calendar.

Required and Recommended Learning Materials:

Required:

Costanzo, Linda. Physiology, Saunders, 2nd Edition UPDATED, 2004.
Additional readings as assigned by course faculty.

Recommended (both available as e-books):

Ganong, William F. Review of Medical Physiology, 22nd edition, 2005.

Silbernagl, S. and F. Lang. Color Atlas of Pathophysiology, Thieme, 2000.

Examinations/Grading

The material for examinations and quizzes will come from lectures/large group sessions, small group sessions, and the required readings. The format for examinations may include the following:

- Written examination items: multiple choice questions (single best answer) worth one point.
- Practical examination items: multiple choice (single best answer) questions based upon illustrations or charts and graphs, from material covered in lectures small groups, and the textbook, worth one point.

There will be five integrated block examinations and a final comprehensive examination in the Spring semester. Each block examination will cover material in all the courses, including physiology, for the weeks prior to each of these examinations. The final examination will cover material for the whole semester. The physiology components for the integrated and final examinations will be as follows:

Section	Points
Cardiovascular/Pulmonary section	25
Renal/Gastrointestinal section	22
Reproductive/Endocrine section	22
Hematology/Musculoskeletal section	4
Neuroscience/Dermatology section	12
Final Comprehensive exam	30

There will be 6 small group sessions with a 6 point quiz given at the beginning of each of these sessions. Thus, the final grade in will be determined as follows:

115 multiple choice/short answer questions
36 Small group quiz questions

151 total points

Grading for the course is based upon a numeric score calculated as a percentage achieved from all possible points, as follows:

- A = > 90 % correct
- B+ = 87 – 89.9% correct
- B = 80 – 86.9 % correct
- C+ = 77 – 79.9% correct
- C = 70 – 76.9 % correct
- D = 65 – 69.9 % correct
- F = < 64.9 % correct

Student Evaluations of Course and Faculty

Student evaluations of the course are an important way of improving medical education. Your thoughtful and constructive comments are valued. Peer review is an important quality management function in all branches of medicine. In order for peer review to work properly, it must be taken seriously both by the evaluators as well as those being evaluated. Therefore, we ask that you give careful consideration to evaluations. When making comments, consider what you would say if you were face to face with the person to whom the comments are directed. How would you react if the comments were directed at you? One strategy is to provide your perspective on the strengths and weaknesses of the course. What worked for you and what did not? How is your time used optimally? Be specific and provide constructive comments. Can you provide one reasonable suggestion for course improvement? Ultimately, your use of the evaluation process can help you learn how to improve your own medical practice.

The following Attendance, Remediation, Honor Code, and ADA policies have been adopted by the Florida State University College of Medicine for all courses:

FSU COM ATTENDANCE POLICY

COM Philosophy

We believe that:

Professionalism is a major component of our medical curriculum. We believe students should conduct themselves appropriately in the various educational activities of the curriculum. This conduct includes coming to educational activities on-time, using the laptop computers only for course work during the educational activity, and not disrupting the class if late. The faculty should also demonstrate professionalism, by starting and ending all scheduled educational activities on time and providing a course schedule with clearly explained course policies in the course syllabus. Any changes in the schedule should be given to the students in a timely manner.

Students will be accountable and personally responsible for attending all educational activities (small groups, labs, clinical experiences, examinations, lectures, computer sessions, etc.).

Unexcused absences reflect negatively on the goals and objectives of the medical curriculum and demonstrate unprofessional behavior by the respective student.

We owe it to our state legislature and the citizens of the State of Florida to provide a quality educational program that meets the needs of our students in preparing them for the M.D. degree.

Attendance Policy

Students are expected to attend all scheduled activities. Students are expected to be on time. Being on time is defined as being *ready to start* at the assigned time. If a student has an emergency that prevents her/him from attending a scheduled activity, s/he is to call and notify the Office of Student Affairs and request that they inform the supervisors/professors/clerkship faculty/education director for that activity. If at all possible, the student should also call and at a minimum, leave a message with one of the course/clerkship directors. *It is important that students realize that their absence or tardiness negatively impacts a number of other people.* Attendance, including tardiness, is part of the student's evaluation for professionalism. Negative evaluations may result in decreased grades and in severe cases, referral to the Student Evaluation and Promotion Committee.

Procedure for Notification of Absence

If the student knows in advance of an upcoming legitimate absence, the "Advance Notification of Absence from Educational Activity(ies)" form should be completed with signatures from the student, the Assistant Dean for Student Affairs, the course faculty member and the Course Director. The form will be filed in the Office of Student Affairs. The implications for the absence (e.g., remediation, course grade adjustment, make-up exam, etc.) will be given to the student by the course director and final decisions regarding these actions shall rest with the course director.

If the absence occurs due to an unforeseen emergency, the student should contact the course director and the Assistant Dean for Student Affairs immediately to report the absence including the reason for the absence. The implications for the absence (e.g., remediation, course grade adjustment, make-up exam, etc.) will be given to the student by the course director and final decisions regarding these actions shall rest with the course director.

Remediation Policy for Absences from Examinations, Quizzes, Small Group Sessions, Laboratory Sessions, Clinical Learning Center Sessions, Preceptor visits, and Clerkship Call

The remediation policies for absences from examinations, quizzes, small group sessions, laboratory sessions and clerkship call are:

1. **POLICY ON MISSED EXAMINATIONS:** Students are required to take major in-term and final examinations. According to the curriculum committee a student can only be excused from an examination by a course/education director decision based on the personal situation of the student. The course/education director will determine the time of the exam make-up session. **All examinations must be made up within 1 week of returning to class.** Also, according to the curriculum committee decision and the existence of the FSU-COM honor code, the student will be given the same examination given to the other students.
2. **POLICY ON MISSED QUIZZES:** Students are required to take scheduled and unscheduled quizzes in the courses. A student can only be excused from a quiz by a course director decision based on the personal situation of the student. The student must make arrangements with the course/education director to make up a missed quiz. **All quizzes must be made up within 1 week of returning to class.** Also, according to the curriculum committee decision and the existence of the FSU-COM honor code, the student will be given the same quiz given to the other students.
3. **POLICY ON MISSED SMALL GROUP SESSIONS, LABORATORY SESSIONS, CLINICAL LEARNING CENTER SESSIONS, PRECEPTOR VISITS, AND CLERKSHIP CALL:** The student should contact the course director, small group leader or education director for instructions on remediation of the missed session and material covered. Missed small group sessions must be made up within 1 week of returning to class. They will be made up by handing in the answers to the questions in the small group session and a 1 page discussion of the material covered in the session. In BMS 6601, some small group sessions include a quiz as well as case discussions; in such a case, arrangements must be made, according to these policies, for remediating both missed activities.

Remediation Policy for Students Who Fail a Course

Remediation of courses/clerkships will be planned and implemented by a combined decision of the Evaluation and Promotion Committee in collaboration with the course/education director.

Un-excused Absences

“It will be the responsibility of the course/education directors to clearly state in their respective course/clerkship syllabi the implications for having an un-excused absence from a scheduled educational or examination activity in a course or clerkship.” **For BMS 6520, students who have an unexcused absence from an examination or a quiz will lose the entire score (points) awarded for that examination or quiz, and the final grade for the course will reflect this loss.**

FSU Academic Honor Policy (Effective August 22, 2005)

(<http://www.fsu.edu/%7Edof/honorpolicy.htm>)

Students with Disabilities (ADA Statement):

Students with disabilities needing academic accommodations should:

1. Register with and provide documentation to the student disability Resource Center (SDRC);
2. Bring a letter to the instructor from the SDRC indicating you need academic accommodations. This should be done within the first week of class. Specific arrangements should be settled with the instructor 5 working days prior to each exam for which accommodations are being requested.

Topical Outline for the Course

Cardiopulmonary System

Session	Format	Faculty	Topic(s)
11/06	Lectures	Ryerson	Arterial Blood Gases/Hypoxemia
11/09	Lectures	Ryerson	Pulmonary Edema/ Heart Failure
11/16	Small Group	Facilitators	Cardiovascular physiology cases
11/21	Lecture	Ryerson	CO poisoning
11/21	Lecture	Overton	Exercise Testing
12/04	Small Group	Facilitators	Pulmonary physiology cases

12/08 Exam 4

Renal System

Session	Format	Faculty	Topic(s)
1/02	Lecture	Ryerson	Renal Physiology
1/09	Small Group	Facilitators	Renal physiology cases

Gastrointestinal System

Session	Format	Faculty	Topic(s)
1/18	Lecture/Large Group	Patrick	Gastrointestinal Physiology
1/23	Small Group	Facilitators	Gastrointestinal physiology cases

2/02 Exam 5

Reproductive System

Session	Format	Faculty	Topic(s)
2/06	Lecture	Olcese	Reproductive physiology - male
2/07	Lecture	Shepard	Reproductive physiology – female

Endocrine System

Session	Format	Faculty	Topic(s)
2/19	Lecture	Olcese	Endocrine Physiology
2/23	Small Group	Facilitators	Endocrine/Reproductive physiology cases

3/02 Exam 6

Musculoskeletal System

Session	Format	Faculty	Topic(s)
3/19	Lecture	Patrick	Neurophysiology of Pain

4/06 Exam 7

Central Nervous System

Session	Format	Faculty	Topic(s)
4/09	Lecture	Patrick	Neurophysiology
4/26	Small Group	Facilitators	Neuro/Psycho/Pharmacology cases

5/04 Exam 8

5/18 Comprehensive Examination