



The Florida State University  
College of Medicine

# Clinical Organ Physiology

**BMS 6511**

**Spring 2015**

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## Instructors

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# Course Overview

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## ***Learning Objectives***

### **Broad Educational Objectives for Clinical Physiology**

1. Demonstrate an understanding of the normal function and dysfunction for each organ system and how all systems interface to maintain a viable homeostatic environment.
2. Understand the physiology underlying the symptoms seen in dysfunction of each organ system and how they relate to the body as a whole.
3. Demonstrate the ability to apply clinical data to the diagnosis and treatment of physiological malfunction in the organ systems.
4. Develop an adequate basis of knowledge in physiology on which to build as the student advances through to the second year courses and clerkships.

### **Knowledge**

1. Recognize 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 patho-physiology) 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. Describe basic 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.

## Competencies

| <b>FSUCOM – Competencies -Course Title BMS 6511</b> |   |  |
|---|---|--|
| Competency Domains                                  | Competencies Covered in the Course  | Methods of Assessment                        |
| <b>Patient Care</b>                                 | Describe the causes and consequences of normal and abnormal heart sounds  | Small group, simulation exercises            |
| <b>Medical Knowledge</b>                            | <p>Demonstrate an understanding of the normal function and dysfunction for each organ system and how all systems interface to maintain a viable homeostatic environment.</p> <p>Demonstrate an understanding of the physiology underlying the symptoms seen in dysfunction of each organ system and how they relate to the body as a whole.</p> <p>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.</p> | Written exams and quizzes; NBME Subject Exam |
| <b>Practice-based Learning</b>                      | Self-assess knowledge gaps and formulate a plan for improvement   | Faculty observation                          |
| <b>Communication Skills</b>                         | Collaborate with classmates and apply knowledge to solve clinical problems.   | Faculty and peer observation                 |
| <b>Professionalism</b>                              | Work professionally and effectively in small groups   | Faculty and peer observation                 |
| <b>System-based Practice</b>                        |   |  |

## Policies

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### ***Americans with Disabilities Act***

Candidates for the M.D. degree must be able to fully and promptly perform the essential functions in each of the following categories: Observation, Communication, Motor, Intellectual, and Behavioral/Social. However, it is recognized that degrees of ability vary widely between individuals. Individuals are encouraged to discuss their disabilities with the College of Medicine's [Director of Student Counseling Services](#) and the FSU Student Disability Resource Center to determine whether they might be eligible to receive accommodations needed in order to train and function effectively as a physician. The Florida State University College of Medicine is committed to enabling its students by any reasonable means or accommodations to complete the course of study leading to the medical degree.

#### [The Office of Student Counseling Services](#)

Medical Science Research Building, G146  
Phone: (850) 645-8256 Fax: (850) 645-9452

This syllabus and other class materials are available in alternative format upon request. For more information about services available to FSU students with disabilities, contact the:

#### **Student Disability Resource Center**

97 Woodward Avenue, South  
Florida State University  
Tallahassee, FL 32306-4167  
Voice: (850) 644-9566  
TDD: (850) 644-8504  
[sdrc@admin.fsu.edu](mailto:sdrc@admin.fsu.edu)  
<http://www.fsu.edu/~staffair/dean/StudentDisability>

### ***Academic Honor Code***

The Florida State University Academic Honor Policy outlines the University's expectations for the integrity of students' academic work, the procedures for resolving alleged violations of those expectations, and the rights and responsibilities of students and faculty members throughout the process. (Florida State University [Academic Honor Policy](#))

### ***Attendance Policy***

The College of Medicine has detailed attendance policies as they relate to each cohort and events that conflict with course schedules. See the [FSUCOM Student Handbook](#) for details of attendance policy, notice of absences and remediation.

## Required Materials

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Costanzo, L.S. Physiology, Saunders, 4th Edition, 2010.

## Suggested Materials

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Supplemental readings and resources (most are available online via COM library- Go to course page):

Durbin, D. Rapid interpretation of EKG's, 6th Edition, 2000.

Costanzo, L.S. Physiology: Case and Problems, 2nd Edition, 2006

Metting, Patricia. Pretest Physiology Self-Assessment and Review 12th Ed (2008).

### **Access Medicine Library Web site monographs**

1. Cardiovascular Physiology, 7th Edition  
David E. Mohrman, Lois Jane Heller
2. Vander's Renal Physiology, 8th Edition  
Douglas C. Eaton, John P. Pooler
3. Pulmonary Physiology, 8th Edition; Michael G. Levitzky
4. Gastrointestinal Physiology; Kim E. Barrett
5. Endocrine Physiology, 4th Edition; Patricia E. Molina

## Grading

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### ***Assignments***

There will be 3 integrated block exams which include content from all Year 1 Spring semester courses. Physiology items on each exam will be in a "board-type" multiple choice format that emphasizes problem solving rather than rote memory. The course endorses a criterion-referenced teaching philosophy in which exams test the specific ideas that all students are expected to master (criteria), with no attempt to rank order student performance. Thus, there is no reason for students to feel competitive with each other. On the contrary, higher achievement can be expected when students work cooperatively. While all students are expected to pass each exam with a score  $\geq 70\%$ , we encourage you to aspire to mastery (100%) of the material and will do everything we can to help you achieve scores of 80% or higher.

Weekly quizzes are mandatory but formative, i.e., you must take them when scheduled, but they do not contribute to the exam average. Each quiz is not only a formative assessment, but an active learning process. These formative quizzes will allow students and the course director to track progress on a weekly basis.

At the end of the semester, students will take the NBME subject exam in Physiology. We have given this subject exam every year and are aware that the exams are difficult and sometimes contain items not specifically covered in the course. Be confident that the course director takes that into account in setting the “passing” performance level.

### **Grading System**

FSU COM has adopted a pass/fail grading system which is used in the curriculum for the first and second years (See [FSUCOM Student Handbook](#)). To achieve a grade of Pass in BMS 6511 (Physiology) a student must meet all of the following requirements:

- 1) A final average  $\geq 70\%$  on the combination of all examination questions. An average  $<70\%$  will receive a grade of fail, which will require remediation or repetition of the course, as determined by decision of the Student Evaluation and Promotion Committee.
- 2) A student whose performance is  $<70\%$  (below passing) on any individual exam is required to
  - a. attend the exam review,
  - b. contact the course director within 24 hours of that exam review, and
  - c. meet with the course director. Students may be asked to complete a Performance Improvement Program, the purpose of which is to assist the student in developing the skills and habits necessary to succeed in the curriculum as well as to address specific performance deficits.
- 3) Satisfactory performance on the NBME subject examination in Physiology, as determined by the Course Director. The score will be normalized based on class average and historical data.
- 4) Attendance and satisfactory participation in all required sessions, as determined by the Course Director. Unexcused absence from an activity for which attendance is required (for example, Small Group session) may require remediation. Multiple unexcused absences from required activities will be considered a Professionalism concern and may result in a Report of Concern for Unprofessional Behavior..
- 5) Demonstration of the attitudes and behaviors of Medical Professionalism in all aspects of the course.