



## FAU COLLEGE OF MEDICINE

Syllabus :

1. **Course title** : Respiratory system

**Course number**: BMS 6639

**Number of credit hours**: 5

Lecture Hours: up to 8 hrs/week in BC-126, unless otherwise specified.

Small-group Hours: up to 6 hrs/week for PBL, location as assigned

### 2. **Course prerequisites:**

Successful completion of the first year of MD program and promotion to the second year

### 3. **Course logistics:**

a. term: Fall 2012

b. not an online course

c. Biomedical Science Building room BC-126, small group PBL rooms.

### 4. **Instructor information:**

Course Director: Michael Falkowitz, MD  
Assistant Professor of Clinical Biomedical Science  
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Course support: Ms Mavis Brown  
Curriculum Coordinator  
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*Please note:* Any official student communication from the director or curriculum coordinator will be sent via e-mail to students at their FAU e-mail addresses. *If students would like to meet with the course director, they must call or e-mail the course director to schedule an appointment.*

### 5. **TA contact information:**

N/A

### 6. **Course description:**

This Module will introduce students to the various upper respiratory and pulmonary, many of which are common in the general population. Because many of these conditions are chronic and can impact other tissues and organs, it is important that students understand their pathophysiology and treatment.

There are several goals of this module: to introduce the upper respiratory and pulmonary disorders in terms of their basic pathophysiologic mechanisms; to discuss shortness of breath and other clinical features in the context of specific diseases; to incorporate pertinent laboratory tests and ancillary

studies into clinical problem solving; and to provide a solid background and understanding of the pharmacologic agents and non-pharmacologic interventions used to treat upper respiratory and pulmonary disorders. There are four main sections in this module:

- Upper Respiratory
- Allergy/Asthma
- Restrictive and Obstructive
- Neoplastic
- Respiratory Infections

The module will also cover smoking cessation and radiology.

### **7. Course objectives/student learning outcomes:**

At the end of this module the student will be able to:

- Review the normal anatomy and physiology of the lungs and pulmonary system.
- Assess the various presentations associated with shortness of breath and formulate a differential diagnosis.
- Describe the organization and classification of upper respiratory and pulmonary disorders.
- Incorporate laboratory data into the assessment of upper respiratory and pulmonary disorders.
- Correlate chest radiographic findings with specific upper respiratory and pulmonary disorders.
- Characterize the classic pathologic features of upper respiratory and pulmonary disorders discussed in this module.
- Discuss the goals of therapy based on the underlying pathophysiological condition.
- Explain how the mechanisms of action of the upper respiratory and pulmonary drugs lead to their therapeutic effect.
- Identify the most common side effects and toxicities of each class of upper respiratory and pulmonary drugs.

### **8. Course evaluation method:**

Exam Composition: All examination questions will be multiple-choice. Clinical vignettes will be used for many questions, and images will be incorporated as appropriate. Approximately 1-2 questions per lecture hour, 1-2 questions per PBL case hour will be used.

Exams will be delivered electronically via student laptops.

During the exams, students are required to follow the examination protocol presented by the proctors. No specific questions regarding an exam item will be answered during any exam.

Examination Scoring: *Scoring will be based solely on the answers recorded by the student on their laptop computer.* Miskeying of answers or omission of an answer will not be considered in grading a student's examination. Accuracy is the sole responsibility of the student.

Grades will be available via Blackboard in a timely fashion.

Viewing the Examination: All exams will be secure. Students can access a copy of the exam for review in the Office of Medical Education, Room BC-136.

Grading Policy:

The course grade is made up of two components (exams & mini-cases, and PBL). An unsatisfactory grade for either of the two components will result in an unsatisfactory grade for the course

*Component 1*

Exam 1	45 points
Exam 2	45 points
Mini-cases	10 points

- Three problem sets of short cases for the students to solve independently and outside of class. These problem sets are then discussed in three scheduled small-group sessions.
- Consists of independently done work handed in at the beginning of the session.
- Evaluation is based upon turning in the mini-cases and satisfactory completion as defined by the standards set forth by students in their class oath.

*Component 2*

PBL facilitators will provide narrative evaluation which will contain notations as to whether the student's academic and professional performance is on the level of "honors" (H), "high satisfactory" (HS), "satisfactory" (S), "marginally satisfactory" (MS), and "unsatisfactory" U. This will be based on the student's performance the following areas:

- Use of student's own knowledge base
- Knowledge acquisition/active learning
- Critical thinking/reasoning/problem-solving
- Teamwork/group communication and assessment

When a student obtains a "MS" or "U" on any examination, a letter is sent to the student asking them to contact the course director for assistance. The letter is copied to the student's file.

**9. Course grading scale:**

The grading scale for the course is as follows:

(H) Honors	= or >93% and (H) in PBL
(HS) High Satisfactory	85% - 92.99% (H) or (S) in PBL
(S) Satisfactory	= or >75% and (S) or (H) in PBL
(MS) Marginal Satisfactory	= or >75% and (MS) in PBL 70%-74.99% and (H), (S) or (MS) in PBL
(U) Unsatisfactory	= or >70% and (U) in PBL <70% and (H), (S), (MS), or (U) in PBL

**10. Policy on makeup tests, etc.**

Exam Administration: All examinations will be administered in the Biomedical Sciences building on the dates and times documented in the examination schedule. A student must sit for all examinations as scheduled. A student must obtain permission for an excused absence from the course director and notify the Senior Associate Dean for Student Affairs prior to the time for sitting for a scheduled examination. In the event of a personal emergency, the course director and the Senior Associate Dean for Student Affairs must be notified of the absence as soon as possible. Missed examinations will be rescheduled at the discretion of the course director, at a time that does not interfere with other course work. Unexcused absences will result in a grade of zero (0) for the missed examination.

All absences from examinations should be documented by a PIR from the course director and will be communicated to the Office of Student Affairs. A record of excused and unexcused absences from examinations will be maintained by the Office of Student Affairs. A pattern of recurrent absences from examinations, whether excused or unexcused, will be reviewed by the MSPPSC and may result in a recommendation up to and including dismissal from the FAU medical Education Program. (See Student Rights and Responsibilities Handbook)

## **11. Special course requirements:**

Attendance Policy:

The FAU faculty and administration agree that student attendance and participation in all scheduled learning sessions are important to students' academic and professional progress and ultimate success as physicians.

Attendance at the Monday/Wednesday/Friday small-group sessions and wrap-up is mandatory.

***For an absence to be excused, a request must be made to the Course Director. Only a Course Director can excuse an absence. No missed work associated with a specific session can be made up without loss of credit for satisfactory completion unless an excused absence has been granted.***

***An excused absence from a small-group PBL session will be made up by the assignment of an additional learning issue to the student. An unexcused absence will result in the assignment of an additional learning objective for each absence, and a two point deduction from the PBL small group performance component of the final grade.***

Repeated unexcused absences from required curricular activities may result in disciplinary action, up to and including dismissal from the FAU Medical Education Program.

## **12. Classroom etiquette policy:**

Students should be considerate of each other by switching his/her cell phone to vibrate during all teaching activities.

If a telephone call is of an emergency nature and must be answered during class, the student should excuse him/herself from the lecture hall before conversing.

Laptop computer use should be limited to viewing and recording lecture notes rather than checking e-mail, playing or viewing other distracting websites. Students may be asked by faculty to turn off laptops during any session where group participation is required (such as PBL and wrap-up sessions).

### **13. Disability policy statement:**

In compliance with the Americans with Disabilities Act (ADA), students who require special accommodation due to a disability to properly execute coursework must register with the Office for Students with Disabilities (OSD) –in Boca Raton, SU 133 (561-297-3880)—and follow all OSD procedures.

### **14. Honor code policy:**

Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty is considered a serious breach of these ethical standards because it interferes with the University mission to provide a high quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the University community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility.

The FAU Honor Code requires a faculty member, student, or staff member to notify an instructor when there is reason to believe an academic irregularity is occurring in a course. The instructor must pursue any reasonable allegation, taking action where appropriate. The following constitute academic irregularities:

1. The use of notes, books or assistance from or to other students while taking an examination or working on other assignments, unless specifically authorized by the instructor, are defined as acts of cheating.
2. The presentation of words or ideas from any other source as one's own is an act defined as plagiarism.
3. Other activities that interfere with the educational mission of the University.

For full details of the FAU Honor Code, see University Regulation 4.001 at [www.fau.edu/regulations/chapter4/4.001\\_Honor\\_Code.pdf](http://www.fau.edu/regulations/chapter4/4.001_Honor_Code.pdf).

In addition to the FAU Honor Code, the FAU College of Medicine has adopted specific academic, professional and behavioral standards governing medical student conduct which the FAU COM faculty and administration believe are essential components of medical education and the development of medical students. The FAU COM academic, professional and behavioral standards are included in the COM Student Handbook

## 15. Required texts/readings

The following are textbooks that students are expected to purchase for use in the course. All the textbooks listed below are available at the FAU Bookstore.

Title	Author(s)	Publisher
Principles of Pulmonary Medicine, 5 <sup>th</sup> Edition	Weinberger, Cockrill, Mandel	Saunders, Elsevier
Respiratory Physiology-The Essentials, 8th Edition	West	Lippincott Williams & Wilkins, 2008

The texts from the Year 1 Courses remain of interest.

## 16. Supplementary resources:

Web Resources:

(These resources and others may be accessed via the “*Handouts and links*” of the student e-Dossier on Blackboard)

Medline Dictionary, an online dictionary provided by the US National Library of Medicine and the National Institutes of Health is a potentially useful resource during the PBL small group sessions.

Aperio Microscope Images: These virtual microscope images, which can be accessed through the Blackboard site, via the “Handouts and Links” tab, can be found at: <http://med.fau.edu/aperio>.

The Internet Pathology Laboratory for Medical Education, which can also be accessed through the Blackboard site via the “Handouts and Links” tab, is a comprehensive learning tool, encompassing the latest edition of the world-famous WebPath© software. Individual PBL-based exercises will utilize this resource. In addition, the application contains useful anatomy, radiology, histology, and microbiology images and tutorials, in addition to thousands of general and systemic pathology images. Students and faculty alike may wish to utilize this resource for learning and teaching purposes. In addition, WebPath contains a section of case-based laboratory exercises and examination questions (with fully-explained answers) that are very helpful resources for learning and review.

## 17. Web-based postings:

Students are encouraged to carry their laptop with them as much as possible in order to access resources, patient log and other resources.

Session handouts	<i>Yes</i>	Session Objectives	<i>Yes</i>	Quizzes	<i>No</i>
Required Activities	<i>Yes</i>	Grades	<i>Yes</i>	Exams	<i>Delivered via laptop</i>

## 18. Course topical outline:

### Content outline:

<b>Session Topic</b>
Course Introduction
Review of Pulmonary Anatomy and Histology
Pulmonary Imaging I
Structure, Function and Mechanics of Ventilation
Gas Exchange/ Acid Base Status
Pulmonary/Bronchial Circulation and Ventilation/ Perfusion Relationships
Ventilation/Perfusion Relationships and Mechanisms of Hypoxia
Control of Ventilation and Altitude/Hyperbaric Physiology
Pulmonary Function Lab
Pathology of Obstructive Lung Disease
Management of Obstructive Lung Diseases
Pathology of Lung Neoplasms
Respiratory Physiology Case Reviews
Asthma
Overview of Respiratory Medications
Restrictive Lung Disease
Chest Bellows, Perioperative Changes, Neuromuscular Disease
Pathology of Interstitial Lung Disease
Pulmonary Imaging II
Pulmonary Infections
Defense Systems of the Lungs
Lung Development and Pediatric Pulmonary Disorders
TB and Atypical AFB Infections of the Lungs
Manifestations of HIV and Immunosuppression on the Lungs
Larynx and Sinus
Clinical Cases
Sleep Disorders
Pulmonary Hypertension
Pleural Disease
DVT/Pulmonary Embolism
Hypoxic and Hypercarbic Respiratory Failure
Mechanical Ventilation
Simulation Lab
Advances in Pulmonary Medicine and Lung Transplant

*Please refer to Blackboard for up-to-date information and session-related objectives and handouts.*

### **19. Study habits:**

A major contribution to your learning is active engagement, which includes participation in the learning of other students and interaction with the instructors. Students are expected to be proactive and to access the Blackboard system to review items associated to individual sessions.

Learning in the field of medicine is a life-long endeavor that is not only necessary, but can and should be fun. One of the most important factors for learning is curiosity and sometimes, the best way to keep this curiosity stimulated is through our interaction with colleagues and peers. When learning in small groups, we have a chance to try to explain topics to each other, brainstorm solutions together, give each other constructive feedback, and support and validate each other. We encourage balancing studying alone with learning in small groups. It is important to develop a study routine to avoid “putting things off” and “cramming” and to minimize the stress we may add to our lives in that way.

### **20. Independent study time:**

Independent Study Time allocated within the day time schedule is provided for students, on average about 9 hours per week.

Students are expected to use this time to further their learning. The time should be used for independent study or with peers. It is an opportunity to seek out faculty to interact with them outside the formal teaching setting. Since the PBL small-group format requires that students research learning objectives, the time may be used to prepare for the subsequent sessions. Finally, the time may be used to work on assignments, problem-solving cases, off-campus visits or other tasks that are required by the courses.

Occasionally, some Independent Study Time sessions may be used for curriculum-related activities (e.g. standardized examinations): notice will be given as early as possible for these occasions.

### **21. Course and faculty evaluation:**

FAU highly values the process of formal program evaluation and feedback. FAU students are required to complete all course evaluations and program evaluation surveys which are the Students Perception of Teaching (SPOT).

Grades and transcripts may be held for failure to submit required surveys. Evaluations should be constructive, to help improve individual faculty’s teaching, and the content and format of the courses.

Moreover, the timely completion of evaluations at the level of undergraduate medical education assists students in developing the administrative and organizational skills required throughout their academic and professional career. We appreciate your completing evaluations to help continue with improvement of the learning experiences and environment for all students.

**22. Faculty** (in alphabetical order):

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