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Graduate Programs—NEW COURSE PROPOSAL

DEPARTMENT NAME: **BMED**

COLLEGE OF: **COLLEGE OF BIOMEDICAL SCIENCE – MEDICAL EDUCATION PROGRAM**

RECOMMENDED COURSE IDENTIFICATION:

PREFIX BMS COURSE NUMBER 6631 LAB CODE (L or C) _____

(TO OBTAIN A COURSE NUMBER, CONTACT ERUDOLPH@FAU.EDU)

COMPLETE COURSE TITLE : **HAMATOLOGY AND ONCOLOGY**

EFFECTIVE DATE

(first term course will be offered)

SPRING , 2013

CREDITS: **4 HRS.**

TEXTBOOK INFORMATION:

Robbins and Cotran's Pathologic Basis of Disease 7th Edition

Kumar, Cotran, Robbins

Saunders

Harrison's Principles of Internal Medicine, 17th Edition

Anthony S. Fauci, Eugene Braunwald, Dennis L. Kasper, Stephen L. Hauser, Dan L. Longo, J. Larry Jameson, and Joseph Loscalzo, Eds.

McGraw Hill
(Available through online access at UM Calder Library)

GRADING (SELECT ONLY ONE GRADING OPTION): REGULAR X PASS/FAIL _____ SATISFACTORY/UNSATISFACTORY _____

COURSE DESCRIPTION, NO MORE THAN 3 LINES: The course is divided into two sections: Oncology and Hematology. In the Oncology section, the purpose is to reinforce the basic concepts and vocabulary in oncogenesis, epidemiology, the behavioral and natural history of common cancers, pathology and cancer biology introduced in the previous system-based courses. In the Hematology section, the purpose is to review the normal structure and function of erythrocytes, leukocytes, platelets, and bone marrow

PREREQUISITES W/MINIMUM GRADE: *

COREQUISITES:

OTHER REGISTRATION CONTROLS (MAJOR, COLLEGE, LEVEL):

PREREQUISITES, COREQUISITES & REGISTRATION CONTROLS SHOWN ABOVE WILL BE ENFORCED FOR ALL COURSE SECTIONS.

*DEFAULT MINIMUM GRADE IS D-.

MINIMUM QUALIFICATIONS NEEDED TO TEACH THIS COURSE : **M.D.**

Other departments, colleges that might be affected by the new course must be consulted. List entities that have been consulted and attach written comments from each.

Julie C. Servoss M.D., M.P.H.

Phone: 561-297-4133

E-Mail: jservoss@fau.edu

Faculty Contact, Email, Complete Phone Number

SIGNATURES

SUPPORTING MATERIALS

Approved by:

Department Chair: _____

College Curriculum Chair: _____

College Dean: _____

UGPC Chair: _____

Dean of the Graduate College: _____

Date:

Syllabus—must include all details as shown in the UGPC Guidelines.

Written Consent—required from all departments affected.

Go to: <http://graduate.fau.edu/gpc/> to download this form and guidelines to fill out the form.

Email this form and syllabus to diamond@fau.edu and eqirjo@fau.edu one week **before** the University Graduate Programs Committee meeting so that materials may be viewed on the UGPC website by committee members prior to the meeting.

FAU Medical Education Program. 2011-2012

Syllabus :

1. Course title : Hematology & Oncology

Course number: BMS 6631

Number of credit hours: 4

Lecture Hours: up to 10 hrs/week in classroom, unless otherwise specified.

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

2. Course prerequisites:

Accepted for matriculation in the FAU Medical Sciences program.

3. Course logistics:

a. term: spring 2013

b. not an online course

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

4. Instructor information:

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Course support:	Ms Tamara Alexander Program Assistant BC-137 561-297-1373 talexa14@fau.edu	Ms Mavis Brown Curriculum Coordinator BC-138 561-297-0899 mwbrown@fau.edu
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Please note: Any official student communication from the director or program assistant 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:

Rationale:

The Continuity Medicine Curriculum uses a chronic illness model and an integrated patient care approach to prepare students for medical practice.

The CMC Hematology Oncology Course builds on the foundation in gross anatomy, pathology and imaging acquired in the year 1 Fundamentals of Biomedical Science sequence and the CMC Neuroscience and Behavior course. The course provides continued opportunities to integrate anatomy and pathology with clinical vignettes and as such complements the teaching in the Physicianship Skills courses of year 1 and year 2.

The Continuity Medicine Curriculum breaks down traditional barriers between disciplines, integrates the basic and clinical sciences, and immerses the students in an educational milieu that transcends the biological sciences and the treatment of disease to include behavioral and social sciences and the key competencies (see page 4 of this syllabus) that guide modern medical education.

The course is divided into two sections: Oncology and Hematology. In the Oncology section, the purpose is to reinforce the basic concepts and vocabulary in oncogenesis, epidemiology, the behavioral and natural history of common cancers, pathology and cancer biology introduced in the previous system-based courses. New concepts that will be taught include the role of the immune system in cancer biology, clinical syndromes associated with cancer (paraneoplastic syndromes) and principles of treatment (surgery, radiation, chemotherapy, hormonal, immunotherapy, and targeted therapies). In the Hematology section, the purpose is to review the normal structure and function of erythrocytes, leukocytes, platelets, and bone marrow. Also, the etiology, pathogenesis, and pathophysiology of the primary hematologic disorders will be discussed. These conditions include: anemias, abnormalities of hemostasis (bleeding and clotting), myeloproliferative disorders, leukemias, plasma cell disorders, and lymphoproliferative disorders. Finally, principles of blood transfusion, including the use of blood components, as well as bone marrow transplantation, will be discussed.

From an instructional viewpoint, students will experience a variety of modern educational methodologies that require them to be active and responsible learners. As such, the curriculum will employ faculty and student-led small group experiences, supported by lectures in the classroom setting which are thematically related to the disease model and used to complement problem-based learning with additional key concepts.

The goals of the medical program are to teach the attitudes and skills required for achieving competency as effective practitioners. This course provides further opportunities to acquire a fund of knowledge by encouraging students to be proactive and responsible for their learning.

7. Course objectives/student learning outcomes:

Competency Based Objectives:

At the end of the course, medical students will be able to:

Professionalism

- § Demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to their peers, patients and faculty
- § Appreciate the importance of a compassionate, non-judgmental attitude with classmates, faculty and staff
- § Understand and respect the need to collaborate with each other to promote learning
- § Apply reflective practice as a strategy to achieve personal and professional growth
- § Apply methods to reduce stress and improve wellness in oneself and others

Interpersonal Skills and Communication

- § Students must be able to demonstrate interpersonal and communication skills that result in effective information exchange and teaming with their peers and faculty
- § Demonstrate the ability to work in professional teams to solve problems.
- § Demonstrate the ability to do self and peer evaluations of performance and knowledge levels
- § Demonstrate skills to learn in a student-centered and adult learning environment
- § Recognize skills necessary to effectively communicate negative diagnoses and poor prognoses to patients and their families and/or support systems

Patient Care

- § Correlate the biomedical science aspect of model diseases of the hematopoietic system and selected organ system cancers to the clinical knowledge acquired in the Integrated Patient Care and Physicianship Skills
- § Recognize the importance of culturally competent care in the approach to patients with chronic disease
- § Recognize the impact of socioeconomic status, race, ethnicity and culture (as it relates to ethnicity as well as social context) on patients' health and medical decision-making

Medical Knowledge:

- § Understand basic concepts and vocabulary in oncogenesis, epidemiology, pathology, the biology of cancer and the role of the immune system, clinical syndromes associated with cancer (paraneoplastic syndromes), principles of treatment (surgery, radiation, chemotherapy, hormonal, immunotherapy, and targeted therapies), and the behavioral and natural history of common cancers
- § Display knowledge of normal structure and function of erythrocytes, leukocytes, platelets, and bone marrow.

- § Understand the etiology, pathogenesis, and pathophysiology of selected primary hematologic disorders including anemias, abnormalities of hemostasis (bleeding and clotting), myeloproliferative disorders, leukemias, plasma cell disorders, and lymphoproliferative disorders.
- § Understand basic principles of blood transfusion, including the use of blood components, as well as bone marrow transplantation.

Practice-Based Learning and Improvement

- § Reflect on the importance of dedication to life-long learning and strive for excellence in order to consistently provide optimal performance in class, small group and ultimately in patient care
- § Take charge of their own learning and effectively elicit feedback from faculty and peers in order to optimize learning

Systems-Based Practice

- § N/A

8. Course evaluation method:

Examination Policy:

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 and 1-2 questions per laboratory hour, if applicable, will be used. Exams will be delivered electronically via student laptops.

Exam Administration: All examinations will be administered in the Biomedical Sciences 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 Assistant 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 Assistant 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 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 class promotions committees and may result in a recommendation up to and including dismissal from the FAU Medical Education Program. (See the Student Rights and Responsibilities Handbook)

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:

Activity	Date	Percentage of Grade
Exam #1	Friday January 15	37.5%
Exam #2	Friday January 29	37.5%
PBL Small Group Performance		25%

Total

100%

1. Exam #1

- Consists of questions covering objectives from lectures and PBL cases.
- Includes material up to and including Wednesday January 13.

2. Exam #2

- Consists of questions covering objectives from lectures and PBL cases.
- Includes material up to Wednesday January 27. *The exam is not cumulative but builds on prior knowledge.*

3. PBL Small Group Performance

- Active participation and attendance are expected in all small groups (See Attendance Policy).
- Consists of the Core Facilitator Evaluation of the student performance during the course.
- Students are expected to meet with their Core Facilitator half-way through the course for a 10-15 minute review of their performance and to use the course evaluation form to guide this formative feedback.
- *Copies of the form used to evaluate students may be found under the "Handouts and links" of the student e-Dossier on Blackboard.*

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When a student obtains a "D" or "F" 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:

A = 93-100; A- = 90-92; B+ = 88-89; B = 83-87; B - = 80-82;
C+ = 78-79; C= 73-77; C- = 70-72; D+ = 68-69; D = 63-67; D- = 60-62; F = 59 and below.

10. Policy on makeup tests, etc.

Failure on examinations:

- a) If a student passes a course, but has failed one of the written examinations, the student will be asked to meet with the Course Director to discuss any problems the student may have had with the material. A plan of action for improving the student's performance will be determined.
- b) If a student passes a course, but has a written examination average that is below passing (as determined by the course director), the student will receive a "Fail" for the course and will also be asked to meet with the Course Director. The student will be discussed at the Promotions Committee meeting.
- c) Course Directors may designate a student's performance for the grade report as a grade of "D." While not failing, a grade of "D" identifies an unsatisfactory performance for graduate level training, and could result in a recommendation by the Course Director to perform remedial work. Students with "D" grades will be reviewed by class promotions committees. Earning one or more grades of "D" could signify that the student is not making sufficient academic progress, and may result in a recommendation by the promotions committee for the student to repeat a course or courses, repeat an academic year, or be dismissed from the school of medicine.

Failure in problem-based learning:

- a) If a student fails the problem-based learning portion of a course (as determined by the course director), the student will receive a grade of "D" for the course and be asked to meet with the Course Director. A plan of action for improving the student's performance will be determined. Evidence of successful completion of the remediation must be provided by the Course Director for inclusion in the student file. The student will be discussed at the Promotions Committee meeting.

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.

Attendance at the Tuesday morning anatomy sessions is expected for all scheduled activities. Students are expected to be on time: in that each session will start with a short written quiz, being on time is defined as being ready to start at the assigned time so as to not be pressured to finish the web-based quiz within its assigned time.

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.

The Code of Honorable and Professional Conduct should serve as a guide to medical students in matters related to academic integrity and professional conduct. The Code of Honorable and Professional Conduct provides a mechanism for peer evaluation of student conduct which the FAU faculty and administration believe is an essential component of medical education and development of medical students.

15. Required texts/readings:

Required Textbooks: None

In this course, the textbook of medicine should be used to clarify points and supplement classroom discussions.

Title	Author(s)	Publisher
Robbins and Cotran's Pathologic Basis of Disease 7th Edition	Kumar, Cotran, Robbins	Saunders
Harrison's Principles of Internal Medicine, 17th Edition	Anthony S. Fauci, Eugene Braunwald, Dennis L. Kasper, Stephen L. Hauser, Dan L. Longo, J. Larry Jameson, and Joseph Loscalzo, Eds.	McGraw Hill (Available through online access at UM Calder Library)

The following texts from prior year 1 courses remain of interest:

Title	Author(s)	Publisher
Medical Physiology 1st Edition	Boron and Boulpaep	Elsevier
The Immune System 2nd Edition	Parham	Garland Science
Medical Microbiology 5th Edition	Murray, Rosenthal, Kobayashi & Pfaller	Elsevier
Robbins and Cotran's Pathologic Basis of Disease 7th Edition	Kumar, Cotran, Robbins	Saunders
Basic and Clinical Pharmacology 10th Edition	Katzung	McGraw-Hill
Genetics in Medicine 7th Edition	Thompson and Thompson	Saunders
Biochemistry: Lippincott's Illustrated Reviews 3rd Edition	Champe, Harvey and Ferrier	Lippincott, Williams and Wilkins
Langman's Medical Embryology 10th Edition	Sadler	Lippincott, Williams and Wilkins
Histology: a Text and Atlas 5th Edition	Ross and Pawlina	Lippincott, Williams and Wilkins
Essential Clinical Anatomy 3rd Edition	Moore and Agur	Lippincott, Williams and Wilkins
Anatomy in diagnostic imaging 2nd Edition	Fleckenstein and Trantum-Jensen	Elsevier
Neuroanatomy through Clinical Cases	Blumenfeld	Sinauer, 2002
Frank Netter Anatomy Atlas 4th Edition	Netter	Elsevier
Neuroscience, 4th Edition	Purves, Augustine, Fitzpatrick, Hall, LaMantia, McNamara, White	Sinauer, 2008
Neuroanatomy through Clinical Cases	Blumenfeld	Sinauer, 2002
The Behavioral Sciences and Health Care, 2nd Edition	Sahler and Carr	Hogrefe, 2007
Pathophysiology of Heart Disease, 4th Edition	Lilly	Lippincott, Williams and Wilkins

16. Supplementary resources:

Web Resources:

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

Web Resources:

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>. Selected hematology and oncology slides are available.

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, along with 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.

Course-specific resources:

“Hematology Online Resources”: <http://www.allny.com/health/hematology.html>

Clinical Hematology Atlas, 3rd edition – by Jacqueline Carr, MS, CLSpH(NCA), CLDir(NCA) & Bernadette Rodak, MS, CLSpH(NCA)

“The Hematologist”: http://www.hematology.org/publications/hematologist/SO08/hem_training.cfm

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

17. Course topical outline, including dates:

Content outline:

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

Week of	Academic Week	Session Topic
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1/4/13	Week 23	Course Introduction
		Cancer Risk Factors and Epidemiology
		Molecular Biology of Cancer I
		Molecular Biology of Cancer II
		Cancer Pathology
		Mechanisms of Metastasis
		Tumor Immunology
		Principles of Chemotherapy
		Principles of Radiation Oncology
		Paraneoplastic Syndromes
		Oncologic Emergencies
		PBL 1
1/11/13	Week 24	Review of Circulating Blood Cells: The Red Blood Cell and Platelets
		Introduction to Anemia
		Anemias of Blood Loss and Diminished Erythropoiesis
		Introduction to Hemolytic Anemia: Immunologic Causes of Hemolysis
		Microangiopathic Forms of Hemolytic Anemia
		Hereditary and Acquired Abnormalities of Red Blood Cells
		Hemoglobinopathies
		PBL 2
		Exam # 1
1/18/13	Week 25	Microcytic Anemia
		Macrocytic Anemia
		Bleeding Disorders
		Coagulation Disorders
		Hypercoagulable States
		Heparin Induced Thrombocytopenia
		Principles of Transfusion Medicine
		Review of Circulating Leukocytes
		Inherited and Acquired Immunodeficiencies
		PBL 3
1/25/13	Week 26	Myeloaplastic and Myelodysplastic Disorders
		Myeloproliferative Disorders
		The Leukemias
		Non-Hodgkins Lymphoma
		Hodgkins Lymphoma
		Plasma Cell Disorders
		Exam # 2

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.

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.

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.

Faculty

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