FLORIDA ATLANTIC UNIVERSITY™

Undergraduate Programs—COURSE CHANGE REQUEST[1]

UUPC APPROVAL _____
UFS APPROVAL _____
SCNS SUBMITTAL _____
CONFIRMED _____
BANNER POSTED _____
CATALOG _____

DEPARTMENT: BIOLOGICAL SCIENCE	COLLEGE: COLLEGE OF SCIENCE
COURSE PREFIX AND NUMBER: BSC 4806	CURRENT COURSE TITLE: BIOLOGY OF CANCER
CHANGE(S) ARE TO BE EFFECTIVE (LIST TERM): FALL 2013	____ TERMINATE COURSE (LIST FINAL ACTIVE TERM):
CHANGE TITLE TO: CHANGE PREFIX FROM: TO: CHANGE COURSE NO. FROM: TO: CHANGE CREDITS[2] FROM: TO: CHANGE GRADING FROM: TO: CHANGE WAC/GORDON RULE STATUS[3] ADD*_____ REMOVE _____ CHANGE GENERAL EDUCATION REQUIREMENTS[4] ADD*_____ REMOVE _____ *WAC and General Education criteria must be clearly indicated in attached syllabus. For WAC Guidelines: www.fau.edu/WAC. Please attach General Education Course Approval Request: www.fau.edu/deanugstudies/GeneralEdCourseApprovalRequests.php	CHANGE DESCRIPTION TO: CHANGE PREREQUISITES/MINIMUM GRADES TO*: EXISTING MCB 3020, MCB 3020L NEW PRE/REQ. MCB 3020 MINIMUM PASSING GRADE C- CHANGE COREQUISITES TO*: CHANGE REGISTRATION CONTROLS TO: *Please list existing and new pre/corequisites, specify AND or OR and include minimum passing grade (default is D-).

Attach syllabus for **ANY** changes to current course information.

Should the requested change(s) cause this course to overlap any other FAU courses, please list them here.	Please consult and list departments that might be affected by the change(s) and attach comments.[5]

Faculty contact, email and complete phone number:
David Binninger; binninge@fau.edu; 561.297-3323

Approved by:	*Date:*
Department Chair:	Feb. 27, 2013
College Curriculum Chair:	3/21/13
College Dean:	3/20/13
UUPC Chair:	3/22/13
Undergraduate Studies Dean:	3/27/13
UFS President:	
Provost:	

1. **Syllabus** must be attached; syllabus checklist recommended; see guidelines and checklist: www.fau.edu/academic/registrar/UUPCinfo
2. Review **Provost Memorandum: Definition of a Credit Hour** www.fau.edu/provost/files/Definition_Credit_Hour_Memo_2012.pdf
3. **WAC approval** (attach if necessary)
4. **Gen. Ed. approval** (attach if necessary)
5. **Consent** from affected departments (attach if necessary)

Email this form and syllabus to mjenning@fau.edu **seven business days before** the University Undergraduate Programs Committee meeting so that materials may be viewed on the UUPC website prior to the meeting.

Course Syllabus
Fall 2013
BSC 4806 BIOLOGY OF CANCER
Section 001 CRN # 12486 LEC GN 101 Boca

MWF 03:00-03:50 PM Boca Raton
Instructor: Hartmann, James X.
Class Notes and Student Presentation Summaries are to be found on blackboard. You must have an i-clicker device for the class quizzes.

Dr. Jim Hartmann's email address is jhartman@fau.edu
Office Hours: MWF 1pm – 3pm or by Appointment in Room 270 Sanson Science Building. Lab: Rm 254

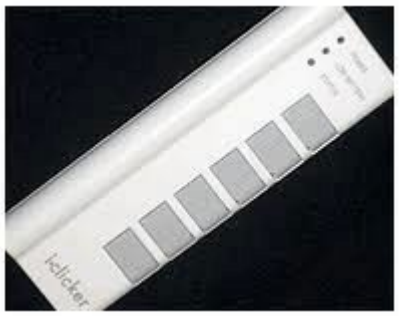
I. Course Information- Text, Goals, Testing, Attendance and Grading basis.
FAU Catalog Description:
Biology of Cancer (BSC 4806) 3 credits
Prerequisites: MCB 3020 Minimum passing grade C-
A consideration of chemical, viral and physical oncogenic agents; genetics and host factors; immunological response to neoplasia; chemotherapy.

Required Text: Principles of Cancer Biology.2006. Lewis J. Kleinsmith. Pearson Benjamin Cummings. ISBN 0-8053-4003-3. Yes, you need this textbook to do well in the class!

Another excellent text: Molecular Biology of Cancer by Lauren Pecorino.2005. Oxford University press. ISBN 0199264724

Previous Texts: The Biological Basis of Cancer. McKinnell et al. Eds. 1998. Cambridge University Press. ISBN: 0-521-59298-5 (paperback).
The Basic Science of Oncology. 2005. Tannock, I.F. et al. 4th edition. McGraw Hill Co. ISBN: 0-070138774-9

You Must purchase: i-clicker remote for taking quizzes-no credit given without an i-clicker.



iclickers are available used online. You must bring one to class on August 29 for first quiz.

Goals for the course:

1. Understanding the molecular and cellular origins of the cancer cell, the basis for vascularization of a tumor and its spread, immunological responses to cancer, prevention of cancer development and an understanding of the approaches to the treatment of the disease.

2. Learning to read, understand and critically evaluate cancer research literature.

3. Presenting the primary literature in a power point format with in-depth data analysis.

4. Improving your level of information literacy, medical search engines.

Expectations for the Course:

1. **Understand the molecular and cellular basis for the origins of cancer and the role played by viruses, chemicals and radiation in causation of cancer.**
2. **Understand the phenotypic changes that occur and attributes of the cancer cell.**
3. **Know the role of the immune system in responding to cancer and the suppressive effects of the cancer cell on immunity.**
4. **Understand modern techniques for the diagnosis and prognosis of cancer based largely on genomic and proteomic analysis.**
5. **Analyze the role of the endothelial cell in providing nourishment to cancers and how angiogenesis or blood supply to the tumor is regulated.**
6. **Be able to critically read and evaluate research papers in cancer biology.**
7. **Be able to present cutting edge scientific literature in powerpoint format and stimulate discussion of the purpose, methods, data and conclusions presented.**

8. **Write a concise summary of the research paper you have presented in a format readily understood by fellow students.**

<u>Office Hours</u>: MWF 1-3 or by appointment. Note- irregularly scheduled meetings may prevent my being in my office. Leave a note in my box or email me for appointment and check if I am in my lab.

<u>Grading Basis</u>:

Exam I:	**100 points**
Exam II:	**100 points**
Quizzes (I clicker)	**50**
Ppt Presentation	**25 (20 pts for oral presentation, 5 pts for posting)**
Ppt Summary	**25 (20 pts for posted written, 5 pts mc ques/refs)**
Total:	**300 points <u>unless more quizzes are given</u>.**

%	Grade
A	94 or higher
A-	90-93
B+	87-89
B	84-86
B-	80-83
C+	77-79
C	74-76
C-	70-73
D+	67-69
D	64-66
D-	60-63
F	59 or less

Missed an exam? Take the cumulative final and it will replace the missing exam. Anyone can take the cumulative and eliminate their lowest exam grade if the cumulative is higher. If the cumulative is lower it will not be used in calculating your grade. The cumulative can not harm your grade and it is not mandatory.

<u>Oral Presentation</u>:25 points toward your grade.
Each student is required to make an exact ten-minute power point presentation on a cutting edge research paper and post on our blackboard discussion a ONE PAGE summary with three key references.

Powerpoint pointers:

Please Note: Your grade on your power point presentation will suffer if you make the terrible mistake of reading from your slides. Please, please do not torture the class or myself by reading from your power point slides! The key to avoid reading from them and thus insulting your audience is to list just the main points you want to make on the slide- NEVER USE entire sentences! If you omit a thought, or are too nervous to remember a particular detail on a slide, just move on and no one will notice.
Don't be like your most hated professor who just reads from power point slides or his notes. Interject your own emotions and feelings! A survey of students found that most evaluate a teacher based upon *tone of voice and emotion*. If you cannot get excited about your topic, choose another! Talk with conviction- you are the expert on the topic or paper you are presenting!

Scientists evaluate one another on additional factors- *knowledge of the subject and clarity of ideas.* Give a short background on your topic, ideally with a diagram. Clearly present the goals of the study, briefly summarize the methods used. Please do NOT give details about every buffer, culture medium, cell line or assay method. Do NOT present every graph or table in the paper, be selective for those that really show the key data-but you must show and analyze select data.
A picture is worth a thousand words! Make your own diagram summarizing the interactions in your talk. You can copy and paste cells, mice, molecules etc from existing diagrams into a paint or draw program. It is a great opportunity to learn about presenting your ideas and your level of creativity!

Written Summary of your presentation:
Two weeks prior to your powerpoint presentation you must post on the Blackboard discussion page a one page summary of your talk (20 points) with one key question/answer and three key references (5 points) Missing references= missing credit.

Summaries will be posted on the blackboard discussion page so you may study for examination on this cutting edge material.

You may use the medical image library in your presentation. It is found at:
www.pharma-id.com/medical-image-library/
Note: medical dictionary found at http://medical-dictionary.com/

Information literacy can be gained by going to:
Pubmed.gov
Clinicaltrials.gov

Examinations:
A blue scantron must be provided by the student for each exam.

***Elective cumulative final exam* (100 pts.) will be given for those who miss a scheduled exam or who may want to improve the grade of one of their exams. The cumulative cannot lower your grade- it will replace an exam only if it is an improvement. It should be noted that the cumulative exam is much more difficult than the regular scheduled exams- so try your best to make it to the regular exams and avoid undue stress and increased susceptibility to cancer.**

The format of the exams will be largely multiple choice and matching with the option to give short answer questions dependent on class size. You will be graded on the multiple choice questions you submit: two for each exam.

Attendance Policy:
The sequence and/or specific dates listed herein for the lecture/exams are subject to change depending on the pace of coverage. It is your responsibility as student to attend classes and ascertain any changes in lecture/exam scheduling.
Note: Scheduling for five quizzes will be announced in the classroom. Unannounced quizzes will count toward your grade when given. Quizzes are given to stimulate class discussion, keep you up to date in your review of the material, and keep you coming to class.

Questions asked in class either by students or myself will appear on the exams- another good reason to attend class.

Student Presentations are definitely on the second and cumulative exams!

Syllabus and Class Notes for Cancer Biology are SUBJECT TO CHANGE! This is especially true since we are using a new textbook.

Academic integrity is expected at all times.

Plagiarism and cheating will not be tolerated and may result in a failing grade, disciplinary action or both.
FAU Honor Code:
Academic irregularities frustrate the efforts of the faculty and serious students to meet University goals. Since faculty, students and staff have a stake in these goals, the responsibility of all is to discourage academic irregularities by preventative measures and by insuring that appropriate action is taken when irregularities are discovered. Thus, FAU has an honor code requiring 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's duty is to pursue any reasonable allegation, taking action where appropriate.

FAU Code of Academic Integrity policy statement
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. Harsh penalties are associated with academic dishonesty. For more information, see University Regulation 4.001 at http://www.fau.edu/ctl/4.001_Code_of_Academic_Integrity.pdf

Classroom etiquette:

University policy on the use of electronic devices states: "In order to enhance and maintain a productive atmosphere for education, personal communication devices, such as cellular telephones and pagers, are to be disabled in class sessions. Recording devices may be used and placed on the front desk or lecture podium.
Students are encouraged to participate in classroom discussions, bring research articles to my attention and challenge any material presented or discussed.

Examinations/Quizzes:

Exams are mostly multiple choice but may include matching, short answer and other question formats.
Students will not be penalized for absences due to participation in University-approved activities, including athletic or scholastics teams, musical

and theatrical performances, and debate activities. I will allow these students to make up missed work without any reduction in the student's final course grade. Reasonable accommodation will also be made for students participating in a religious observance. Also, note that grades of Incomplete ("I") are reserved for students who are passing a course but have not completed all the required work because of exceptional circumstances.

The following dates/topics are approximations for exam scheduling. Please Consult Blackboard for Changes That will be made as some students will have conflicts in the dates they can present and I will re-assign them and you when necessary.

Date and Day	Subjects covered	Readings	Outside reading
Jan 7	Introduction to the course	Notes blackboard Chapter 1 Data Interpretation Material on BB for first exam/quiz	Begin web search for your Powerpoint presentation.
Jan 9	Terminology and concepts	Notes Blackboard Ch 1	Continue web search- Bring i-clicker to class.
Jan 11	Terminology and concepts	Notes Blackboard Ch 1	Continue web search Consult regarding choices
Jan 14	Terminology and concepts	Notes Blackboard Ch 1	
Jan 16	Terminology and concepts	Notes Blackboard Ch 1	
Jan 18	Terminology and concepts	Notes Blackboard Ch 1	
Jan 21	Terminology and concepts	Notes Blackboard Ch 1	
Jan 23	Terminology and concepts	Notes Blackboard Ch 1	
Jan 25	Profile of a Cancer Cell	Notes and Ch 2	
Jan 28	How Cancers Spread	Ch 3	
Jan 30	How Cancers Spread	Ch 3	
Feb 1	Identifying the Causes of cancer	Ch 4	Post your tentative title on BB discussion board.
Feb. 4	Identifyinig the causes of cancer	Ch 4	
Feb. 6	Chemicals and	Ch 5	

	cancer		
Feb 8	Chemicals and cancer	Ch 5	
Feb 11	Quiz Radiation and Cancer	Ch 6	
Feb 13	Exam 1	Chs 1-6 and Data Interpretation on BB	
Feb 15	Infectious agents and cancer	Ch 7	
Feb 18	Infectious agents and cancer	Ch 7	
Feb 20	Heredity and cancer	Ch 8	
Feb 22	Heredity and CA Begin Oncogenes	Ch 8	
Feb 25	Oncogenes	Ch 9	
Feb 27	Oncogenes	Ch 9	
Mar 1	Tumor Suppressor Genes	Ch 10	
Mar 4-10	Spring Break		
Mar 11	Immunotherapy	Ch 11, notes	
Mar 13	Immunotherapy	Ch11, notes	
Mar 15	Immunotherapy	Ch 11 notes	
Mar 18	Diagnosis and Preventing Cancer	Ch 12	
Mar 20	Student Presentations	Research paper Student's choice Posted on discussion board in blackboard.	
Mar 22	Student Presentations	Research paper Student's choice Posted on discussion board in	

		blackboard.	
March 25	**Quiz and Student presentations**	**Research paper Student's choice Posted on discussion board in blackboard.**	
March 27	**Student Presentations**	**Research paper Student's choice Posted on discussion board in blackboard.**	

Mar 29	**Student presentations**	**Research paper Student's choice Posted on discussion board in blackboard.**	
April 1	**Quiz and Student presentations**	**Research paper Student's choice Posted on discussion board in blackboard.**	
April 3	**Student presentations**	**Research paper Student's choice Posted on discussion board in blackboard.**	
April 5	**Student presentations**	**Research paper Student's choice Posted on discussion board in blackboard.**	
April 8	**Student presentations**	**Research paper Student's choice Posted on discussion board in blackboard.**	
April 10	**Quiz and Student presentations**	**Research paper Student's choice Posted on discussion board in blackboard.**	
April 12	**Student presentations**	**Research paper Student's choice Posted on discussion board in blackboard.**	
April 15	**Student presentations**	**Research paper Student's choice Posted on discussion board in blackboard.**	
April 17	**Quiz and Student**	**Research paper Student's choice**	

	presentations	**Posted on discussion board in blackboard.**	
April 19	**Student presentations**	**Research paper Student's choice Posted on discussion board in blackboard.**	
April 22	***Student presentations***	**Research paper Student's choice Posted on discussion board in blackboard.**	
April 24	**Second Exam- chapters in text since first exam plus student presentations**	**Chs 7-12 and student present-ations thus far with student summaries posted in blackboard**	
See next page April 30	***Optinal Cumulative Exam :* 1:15-3:45**	**Chs. 1-12 with all student presentation summaries**	**Student presentations will be on the cumulative exam as well.**
May 4	**Semester ends**		