

Biochemistry of Cancer (11:115:421)

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Required Book: *The Biology of Cancer*, Weinberg 2013

This book is **required** for the course, and students will need the book for the quizzes. Amazon offers the rental of a kindle/ebook version for a significant savings.

Link: http://www.amazon.com/Biology-Cancer-Second-ebook/dp/B00D2J17GW/ref=sr_1_1?ie=UTF8&qid=1370442159&sr=8-1&keywords=the+biology+of+cancer+2nd+edition

Learning Goals: This is a 3 credit course upper level Biochemistry elective. The learning goals of this course are to introduce the student to the basic concepts of the mechanisms of carcinogenesis and to begin applying these concepts to research problems. Students will also become adept at reading and analyzing research papers.

Course Organization: This course meets two times a week. On Monday, lectures will be given in **138A Foran Hall**. For Thursday classes, half the class will meet in **138B Foran Hall**, and the other half will be in **207 Lipman** (details in "Journal Club" section below). Groups will meet every other week as indicated on the syllabus. During the Thursday class students will participate in a journal club analysis of a specific recent scientific article.

Student Requirements/Assessment:

Exams: There are two exams in this course, a midterm exam covering the first 7 weeks, and a non-cumulative final. The midterm will be a take home exam. The final will be multiple choice and short answer.

**Students with an above A average in the class are exempt from the final; students with an above B average can opt out of the final.*

Quizzes: Students will be given questions pertaining to the following week's material on sakai. The quizzes are OPEN BOOK and will be uploaded onto sakai prior to lecture.

Journal Clubs: Each week students will be given a paper that they will have to read and answer questions on in the Thursday journal club. **GROUP 1 (A → F) & 3 (H → MA) will be with Dr. Dani (in 138B Foran Hall) and GROUP 2 (ME→ Ro) & 4 (Ry→Z) will be with Dr. White (in 207 Lipman Hall).** The paper will be a recent scientific article pertaining to the topics being covered in class. All students will be expected to have read the paper, and attend the Thursday class. However, only the *presenting group* (listed on the syllabus) will be expected to discuss the paper's relevance, techniques and results. Students will be graded on their participation in journal club and will be asked specific questions concerning the paper.

Final Paper: The final assignment will be to write a grant proposal focusing on the topics that we have covered in class. A detailed description of the format and expectations will be given to students following the midterm assignments. Student workgroups will be assigned and on the last Thursday class, groups will meet to talk about each other's proposals. Drs. Dani, and White will be on hand to help with questions concerning the final projects.

Student performance in this course will be evaluated based on:

Quiz	(10%)
Journal Club participation	(20%)
Midterm exam	(25%)
Final Exam	(15%)
Final report	(30%)

Grades are based on the writing assignments *and participation in class discussions*. Students are expected to come to class prepared for the class. Cell phones and beepers must be turned off during class. Late papers will not be accepted unless the student makes prior arrangements with Dr. White.

****Note: This syllabus/schedule is subject to change. You will be notified of changes before or in the class.**