

SYLLABUS (tentative) and more!
BIMM 134: Biology of Cancer Winter 2024

Lecture: Tuesday/Thursday 8:00am-9:20am. Galbraith hall room 242

Discussion session: Th 10:00a-10:50a RCLAS

Instructor: Michael Burg, Ph.D. mburg@ucsd.edu

Office and Office Hours: TBD

Note: Attendance to lectures/discussions not mandatory; Lectures will be videocast (however sometimes they don't work)...you will learn more and have a more positive experience if you attend lectures)

BOTH EXAMS MUST BE IN PERSON AT THE DESIGNATED DAY, TIME, LOCATION

Course Description: This course covers basic processes of transformation and tumor formation in a two-part format. The first section is focused on molecular and cellular mechanisms of carcinogenesis. The second section discusses tumor pathology and metastasis. Open to upper-division students only. **Prerequisites:** BILD1

Recommended Texts, Materials and Web-Enhancement

TEXTBOOKS ARE NOT REQUIRED!!!! TEXTBOOKS ARE NOT REQUIRED!!!!

I may use some material for these sources...but again not required

- Molecular Biology of Cancer: Mechanisms, Targets and Therapeutics; Lauren Pecorino; 4th edition (2016)
- The Biology of Cancer; Weinberg; 2nd Edition (2014). Lectures will be, in part based upon topics covered in these texts. These are available on reserve at Geisel Library
- **Some additional readings will be provided via Canvas**
- All powerpoint lectures, associated handouts, and other relevant material are available **via Canvas**
- **Check for announcements on Canvas**
- **Instructional Assistants/Tutors: Names, sections, and contact information will be posted via Canvas**

Attendance, class ethics, and additional considerations

1. Exams will be based upon material in class, assigned science articles;
- 1- **Academic dishonesty and plagiarism (the unauthorized or uncredited use of someone else's work) will result in a grade of "F" for the assignment. Its continued practice will be reported to the appropriate deans for possible disciplinary action and may result in an "F" for the course.**

2-

Extra Credit: 4 extra points for >80% SET response rate

Exams and other assignments

1. There will be two exams (midterm 100pts; final 150pts) on the material stipulated in the study sheets, text reading, supplementary readings and videos and lectures. All exams count; **You must take all exams during the scheduled times.** Exams will include both multiple choice and short answer
2. There will be several written assignments (worth total around 100-150 pts) on material to be explained later

Letter grades will be assigned as follows:

GRADING

Your grade is based upon a percentage of the total points you accumulate during the semester.

- A⁺ = 99% - 100% of the total possible points
- A = 90% - 98.9% of the total possible points
- B⁺ = 89% - 89.9% of the total possible points
- B = 80% - 88.9% of the total possible points
- C⁺ = 79% - 79.9% of the total possible points
- C = 70% - 78.9% of the total possible points
- D = 60% - 69.9% of the total possible points
- F = Less than 60% of the total possible**

Tentative Lecture Schedule (*Subject to change*)

WEEK	Date	Lecture Topic	Pecorino Chapter (Weinberg Biology cancer in para)
1	Jan. 9 Jan. 11	Lecture 1: Introduction Lecture 2: Oncogenes: Cell signaling Ras/MAPK/others	1 (2) + supplemental pdfs
2	Jan. 16 Jan. 18	Lecture 3: Oncogenes: Myc/BCR/ABL Lecture 4: Oncogenes: Therapeutics	4 (4-6) + supplemental pdfs
3	Jan. 23 Jan. 25	Lecture 5: Tumor suppressor: Rb and cell cycle Lecture 6: Tumor suppressor: P53; Tumor suppressor: Therapeutics	5-6 (7-9) + supplemental pdfs
4	Jan. 30 Feb. 1	Lecture 7: Apoptosis: Pathways/mutations/Therapeutics Begin Lecture 8: Cancer immunology	3.7, 3.10 (10) + supplemental pdfs
5	Jan. 23 Feb. 6	Lecture 8: Cancer immunology (review for exam)	
6	Feb. 13 Feb. 15	EXAM 1 Lecture 9: Angiogenesis	12 (15) + supplemental pdfs
7	Feb. 20 Feb. 22	Lecture 10: Finish angiogenesis/begin Meta metastasis Lecture 11: Finish metastasis	9 (14) + supplemental pdfs
8	Feb. 27 Feb. 29	<i>Lecture 11 and 12: Cancer experimental methods</i>	supplemental pdfs
9	Mar. 5 Mar. 7	Lecture 13: Cancer stem cells Lecture 14: TBD	supplemental pdfs
10	Mar. 12 Mar. 14	Lecture 15 TBD Review for exam	
Final: Thu	Mar. 21	Final: 8am-10:59 AM	