

SYLLABUS (tentative)
BIMM 134: Biology of Cancer Summer 2019

Instructor: Michael Burg, Ph.D.
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Office: H&SS 1145LB

Lecture Mon, Wed, 11:00am-1:50p

Peterson 110

Office Hours: TBD

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

- 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 TED**
- All powerpoint lectures, associated handouts, and other relevant material are available on TED
- Check for announcements on TED
- *Instructional Assistants/Tutors: Names, sections, and contact information will be posted on TED*

Attendance, class ethics, and additional considerations

1. Attendance to class lectures and sections are **not required** but will ensure your success in the class.
 2. Exams will be based upon material in class, assigned science articles; Class **attendance will be important for success.**
 3. Please be respectful to your instructor and other classmates by making sure your cell phones are turned off and by **limiting conversations** within class.
- 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.**

Sections: Attendance Recommended but not required

Extra Credit: 5 extra points for attendance of 6 or more sections (cannot attend > 2/week though...)

Extra Credit: 5 extra points for >80% CAPE response rate

Exams and other assignments

1. There will be two exams (midterm 100pts; final 120pts) 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. A makeup exam *may* be granted with proper documentation of a hospitalization or death in the immediate family. There are no makeup final exams. Exams will include both multiple choice (using scantron) and short answer (must be in pen for possibility of a regrade).
2. You must show a photo ID when turning in your exams.
3. Exams will not be returned and may not be photographed or copied. They can be reviewed in your IA section in the week after they are graded. If you and your instructional Assistant feel a regrade may be warranted, I will take up the matter. The exams may be compared to a scan on the original exam to ensure no changes have been made
4. There will be a written assignment (worth total 40-50 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% of the total possible points
- B⁺ = 88% - 89% of the total possible points
- B = 80% - 87% of the total possible points
- C⁺ = 78% - 79% of the total possible points

C = 70% -77% of the total possible points
 D = 60% -69% 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 Mon	Aug 5	Introduction	1 (2) + supplemental pdfs
		Oncogenes:Cell signaling Ras/MAPK/others	4(4-6) + supplemental pdfs
1 Wed	August 7	Oncogenes: Myc/BCR/ABL	4 (4-6) + supplemental pdfs
		Oncogenes: Therapeutics	4 (4-6) + supplemental pdfs
2 Mon	Aug 12	Tumor suppressor: Rb and cell cycle	5-6 (7-9) + supplemental pdfs
		Tumor suppressor: P53;Tumor suppressor: Therapeutics	5-6 (7-9) + supplemental pdfs
2 Wed	Aug 14	Apoptosis: Pathways/mutations/Therapeutics	
		Finish material/review	
3 Mon	Aug 19	Exam 1 (Oncogene/TS/APOPTOSIS)	
		Immortalization: Telomerase/inhibitors	3.7, 3.10 (10) + supplemental pdfs
3 Wed	Aug 21	Cancer immunology	12 (15) + supplemental pdfs
4 Mon	Aug 26	Metastasis	9 (14) + supplemental pdfs
4 Wed	Aug 28	Metastasis/ Angiogenesis	10 (13) + supplemental pdfs
5Mon	Sept 2	HOLIDAY ; NO CLASS	
5 Wed	Sept 4	Angiogenesis	14 + supplemental pdfs
		(Review for final exam)	Review for final exam
Final:Sat	Sept 7	Final	11:30am-2:29pm