

## Cancer Biology – Topics in Biology

BIOL 4330

Spring 2021

**Instructor:** Dr. Giulio Francia **Phone:** (915) 747-8025 **Email:** gfrancia@utep.edu

**Office:** Biological Sciences Bldg Rm: 5.144/Online **Class Videos Posted:** MT 5:00-6:20 p.m.

**Office Hrs:** M 6:00-7:00 pm or by appointment (Except during University Holidays or when there is no class) - Online

**What will you learn:** In this course, you will learn about various aspects of Cancer Biology. Students will also be given a variety of examples of how academic research is helping us understand how cancers evolve, and how to treat them. At the end of this course you will have gained an understanding of the Cellular and Molecular Biology of Cancer.

Keep in mind that the level of your success as an individual student is largely dependent on **your** effort. I highly encourage your active participation. Grades will be awarded based on your performance, with no additional/extra credit or grade negotiation. Your course feedback can be submitted via websites such as <http://www.ratemyprofessors.com/>, and the University will invite you to submit an electronic feedback on this course by the end of the semester.

**Covid-19 considerations** – This Syllabus is for a course taught during a semester affected by covid-19, and it is expected that all classes will be online. Every effort has been made to ensure this syllabus accurately describes the components of this course. Below some sections have been greyed out and these cover aspects that we will NOT be using as long as this class remains online only due to covid-19

### **Required Materials(Iclicker is NOT required while classes remain online due to covid-19) :**

You will need your own iclicker, **now available as a UTEP FREE REEF**, and any iclicker version is acceptable for this class. You may therefore want to check with other UTEP courses that you plan to take, to see if they require specific iclickers (e.g., UTEP Biochemistry courses may specifically require iclicker2) as that information will save you from having to change clickers from one semester to the next. For this class you can use iclicker, iclicker +, iclicker-2, or REEF polling (phone/tablet app) – this last one is an economical version (**free for SPRING 2021**) for phone or laptop and can be activated for just one semester. I also recommend you check at the bookstore (for purchase or rental), online at sites such as Amazon.com, and you may also consider purchasing a used iclicker from past UTEP students. The important thing is that you settle on an iclicker system that works, and that you let me know your iclicker code so I can award you your points from the quizzes. Around 15% of your grade will reflect your participation in class via your use of your iclicker.

**quizzes.** Please check regularly (i.e., once per week) your email and Blackboard posting as there may be class quizzes assigned during the semester

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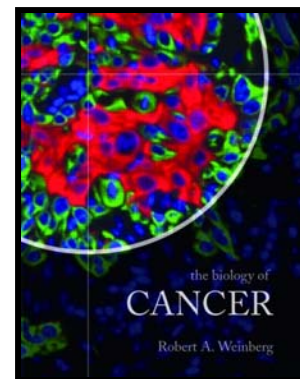
**Textbook:** I encourage you to add the book on the right to your personal library. The chapters are not too lengthy and it serves as an excellent reference to guide you along this course.

**Title:** *The Biology of Cancer*

**Author:** Robert A. Weinberg

**Edition:** 1<sup>st</sup> (or 2<sup>nd</sup>)

**ISBN-10:**0815340761 (0815342209)



**Important - All the material to be covered in class will be posted on the Blackboard. You are expected to read any posted material before class, so check the Blackboard regularly for updates. Exam dates, and Exam details, will be confirmed on the Blackboard. It is your responsibility to check the Blackboard for the Exam dates, and for Exam details.**

**Course Grading:** *Final grades in the course will be determined using scores on quizzes, exams, and attendance only. No extra credit assignments be given (please do not ask). Final grades are not based on a curve. You will receive a grade that is reflective of the effort you put in, what you learned, and the skills acquired during the course. You **earn** your grade; I don't give you a grade.*

- I. **Quizzes: THERE WILL BE FREQUENT QUIZZES.** So, class attendance is strongly recommended. There will be a quiz given at the start, middle or at the end of every lecture that will also serve as a record of attendance. In other words, there may be an unlimited number of quizzes during the lecture.

*NOTE: Anyone caught using someone else's i>clicker will receive a zero for all quizzes and will be reported to the Dean of Students for academic dishonesty (cheating will show up on transcripts).*

- II. **Exams: \*\* NO ZEROES WILL BE DROPPED \*\***  
Two in-class exams and a two final exams will be given. Each exam, except for the final exams, will cover specifically the topics dealt in the classes that preceded the test up to the previous test, but not including the material already tested. The final exams will cover all the content covered during the semester. See the tentative class schedule for the precise date of all the exams. Students must bring a new green scantron for each exam, including the pre-test. If an exam is missed for inevitable and justified reasons, a make-up may be granted on a case-by-case basis. Otherwise, there will be **NO MAKE-UP EXAMS IN THIS COURSE.** If you know ahead of time that you will not be available to take an exam, notify me and I will schedule for you to take another exam one or two days before the scheduled date. However, you will have a different exam from that offered to the rest of the class. If you miss an exam and cannot provide justification, then you will get a zero in that exam.

**Take-home exams** – These will be given out during the semester. It is important that you tackle these INDIVIDUALLY (i.e. by yourself). These exams will be scored according to their brevity, content, clarity, and their scientific accuracy. You should note that practically all the world's

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scientific literature is written in English, and that most grants are written in English; good scientific writing skills are therefore an essential component of modern science. Plagiarism is severely punished by the university and may provide grounds for dismissal. That is why, in fairness to you colleagues you will be asked to submit your exams as a word file (you may also submit a pdf copy, together with the word file, if you wish.).

**Oral presentations** – Each student will be required to give a short oral presentation in class. Additional details will be posted on the Blackboard.

**Self-Assessment** – Towards the end of the course I will ask you to assess your own participation in the class. This self-assessment score will be revised by me according to my own perception of your participation (and your contribution) to the class.

III. **Review Sessions:** There will be **NONE**. Questions should be addressed in class or during office hours.

IV. **Grading System:**

**Course organization and grading**

Attendance to lectures is mandatory. The weight of each assessment towards your final grade is shown below. Grading is on a straight scale: A (90-100), B (80-89), C (70-79), D (60-69), F (below 60).

**Notes:**

- 1 The Pre-test is designed to help you focus on the course. You do not have to prepare for it, and it will not affect your grade. Your participation in the pre-test will, however, affect how I judge your class participation, and your self-assessment score.
2. Exams A and B will each count 15% towards your grade.
3. Final Exams I and II will each count 10% towards your final grade.

Pretest	0%
Exams (A and B)	30%
Quizzes	10%
Participation	5%
Take Home	20%
Self Assessment	5%
Oral Presentation	10%
Final Exam (I and II)	20%

**NOTE: Quizzes and Participation/Self Assessment – these may be replaced by take home/essay assignments (Check Blackboard regularly for updates)**

**Class Policies:**

I. **Exams:**

- ✓ Arrive on time to the exam. Anyone arriving after the first exam is turned in will not be allowed to take the exam!

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- ✓ Go to the restroom before exam! Anyone requesting a restroom break will be asked to empty **and** pull out all pockets and may be accompanied by a TA.
  - ✓ You will never need a calculator for an exam in this class so put them away.
  - ✓ Place **all electronic devices** (turn cell phones off) in your purse or backpack. Absolutely nothing electronic allowed on your desk during an exam. Violating this rule will not be tolerated. *Only* a #2 pencil, an eraser, your scantron and exam are allowed on your desk during an examination.
  - ✓ All personal items (backpacks, purses, etc) must be placed at the front of room upon entrance.
  - ✓ No headphones allowed under any circumstances!
  - ✓ Baseball caps or any sort of hat with a brim must be removed.
  - ✓ Try not to disrupt those around you after you finish an exam.
  - ✓ No sharing of pencils, pens, erasers. You are to share nothing during an exam.
  - ✓ **No talking or joking** during an exam.
  - ✓ No cheat sheets (these will earn a trip to the Dean of Students to explain yourself).
  - ✓ No looking around at exams of others sitting near you.
- II. **Grading:** Exams will be graded the same day of the exam and scores will be posted on Blackboard later that evening, or as soon as the marking is complete. Due to time restraints, it is not possible to go over the exam in class but you are more than welcome to look over your exam during office hours or by appointment. *All exams must stay in my office at all times.* Grades are earned on exams, quizzes, and attendance *only*. There will be **no** extra credit assignments (i.e. reports) so do not ask for these. If you are having problems, please come see me immediately. **DO NOT wait until the end of the semester when it is too late.**
- III. **Attendance:** Class attendance is **MANDATORY**. The only exceptions are university recognized excuses for absence. Attendance will be taken routinely in the form of a daily quiz. Students are responsible for attending lecture regularly and knowing what takes place during classes. This includes: material covered during lecture, announcements, handouts, changes in the syllabus, etc. If you *must* miss a class, you need to make a special effort to learn what occurred during your absence. You are adults and you are paying tuition for this course. It is up to you to determine whether you need to be here or not. Keep in mind that the activities conducted in class cannot be made up at a later date. Also, keep in mind that exams will be based on the material covered in class.
- IV. **i>clicker Usage:** Do not answer the quizzes with someone else's i>clicker. The i>clicker is for personal use only. I may ask for specific students to justify their i>clicker answer in front of the class. If you are called to justify your answer and you are not present, but an answer is registered as coming from your i>clicker, then you will lose the opportunity to earn a grade for quizzes. Instead, you will receive an automatic grade of zero. The person who is found guilty of answering for another student will also receive the same punishment.
- V. **Courtesy:** Be respectful not only to your instructor, but to your fellow classmates as well. Please place all cell phones on vibration or silent mode prior to class and do not answer them while in class.

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- VI. Withdrawing from the course:** The last day for you to withdraw from any course with an automatic "W" is **Apr 1st**. Please note that it is the student's responsibility to officially withdraw from a course before the drop deadline. A grade of incomplete is issued by the instructor when a student has completed most of the course work, has a good reason for not completing the course work, has a good chance of passing, and the instructor agrees to the grade of I. A grade of "I" will never be given to "make-up" or repeat the entire course.
- VII. Academic Dishonesty:** Suspected cases or acts of alleged scholastic dishonesty (Cheating) will be automatically referred to the Dean of Students' Office. It is the policy of the University of Texas at El Paso that academic dishonesty is a completely unacceptable mode of conduct and will not be tolerated in any form. All persons involved in academic dishonesty will be disciplined in accordance with University regulations and procedures.
- VIII. Accessibility/Disabilities:** If you have, or suspect you have, a disability and need accommodations you should contact Disabled Student Services Office (DSSO) at 747-5148 or at [dss@utep.edu](mailto:dss@utep.edu) or go by Room 106 Union East Building. If you are a student with a disability (physical, learning, etc), please notify me at the beginning of the semester so that accommodations can be made for you as soon as possible.

### **Registering your i>clicker on the web:**

You are required to get an i>clicker remote for in-class participation. The i>clicker is a response system that will allow you to respond to the in-class quizzes. Each i>clicker has a unique serial number on the back of the remote. Place a piece of scotch tape over that bar code and ID to preserve it. **In order to receive credit for your in-class quizzes, you will need to register your i>clicker remote online within the first two weeks of class. You must have come to class at least once and answered at least one question, in order to complete this registration properly.** Once you have answered a question in my class, go to [www.iclicker.com/registration](http://www.iclicker.com/registration). Complete the fields with your first name, last name, remote ID, and student ID. (**IMPORTANT:** This is **NOT** your new 800 number, instead it is the ID that identifies your university email address, which is usually a combination of your last name, the initial of your first name, and sometimes a single or double digit number – if you have doubts about your ID, send me an email.) The remote ID is the series of numbers and sometimes letters found on the bottom of the back of your i>clicker remote. The i>clicker response system will be used in every class; therefore, you are expected to bring it to every class.

**Tentative Class Schedule:** *Please be aware that this schedule is subject to change! Check the Blackboard regularly for updates or alerts.*

Date	Lecture	Reference
Tuesday, Jan 19	<b>Introduction Part IA</b>	<b>Chapter 1</b>
Monday, Jan 25	<b>Introduction Part IB</b>	-
Tuesday, Jan 26	<b>Introduction Part II</b>	<b>Chapter 2</b>
Monday, Feb 1	<b>Viruses and cancer</b>	<b>Chapter 3</b>
Tuesday, Feb 2	<b>Oncogenes</b>	<b>Chapter 4</b>
Monday, Feb 8	<b>Tumor suppressor genes</b>	<b>Chapter 7</b>
Tuesday, Feb 9	<b>Metastasis I</b>	<b>Chapter 14</b>
Monday, Feb 15	<b>Metastasis II</b>	
Tuesday, Feb 16	<b>No Class</b>	-
Monday, Feb 22	<b>Exam A</b>	-
Tuesday, Feb 23	<b>Cell cycle.</b>	<b>Chapter 8</b>
Monday, Mar 1	<b>p53, guardian of the genome</b>	<b>Chapter 9</b>

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Tuesday, Mar 2	<b>Angiogenesis</b>	<b>Chapter 13</b>
Monday, Mar 8	<b>Signal transduction</b>	<b>Chapter 6</b>
Tuesday, Mar 9	<b>Growth factors and cancer</b>	<b>Chapter 5</b>
Monday, Mar 22	<b>Tumorigenesis</b>	<b>Chapter 10</b>
Tuesday, Mar 23	<b>Multistep carcinogenesis</b>	<b>Chapter 11</b>
Monday, Mar 19	<b>No Class</b>	<b>-</b>
Tuesday, Mar 30	<b>Exam B</b>	<b>Exam B</b>
Monday, Apr 5	<b>Genome integrity</b>	<b>Chapter 12</b>
Tuesday, Apr 6	<b>Cancer therapy I</b>	<b>Chapter 16</b>
Monday, Apr 12	<b>Cancer therapy II</b>	<b>-</b>
Tuesday, Apr 13	<b>Cancer therapy III</b>	<b>-</b>
Monday, Apr 19	<b>No Class</b>	
Tuesday, Apr 20	<b>Immunology</b>	<b>Chapter 15</b>
Monday, Apr 26	<b>Reading assgn.</b>	<b>TAKE HOME EXAM</b>
Tuesday, Apr 27	<b>Reading assgn.</b>	<b>TAKE HOME EXAM</b>
Monday, May 3	<b>Cancer Biology Round-up</b>	
		<b>-</b>
	<b>-</b>	
, May	<b>Final Exam []</b>	<b>-</b>