

To: Gary Heiman and Martha Haviland
From: David E. Axelrod, July 17, 2020
Subject: Information for students about
Introduction to Cancer 01:447:245 Fall 2020
Instructor: David E. Axelrod, Email: axelrod@biology.rutgers.edu

Format: Synchronous live lectures with screen share and discussion with students using the Canvas course management system and Conferences (Big Blue Button or Zoom). The slides for the lecture will be available in PowerPoint or PDF format before the lecture. The live lectures will be recorded for access after the lecture. Students may make an appointment to be held with the Instructor during weekly office hours.

Expectations and Technology: Students are expected to view and participate in each class, Tuesday and Thursday 1:40 – 3:00 PM. A desktop or laptop computer with a webcam and audio capability, and internet access are necessary. A student guide to the Canvas course management system is available at: <https://community.canvaslms.com/docs/DOC-10701-canvas-student-guide-table-of-contents>

Exams: There will be three exams used for calculating the final grade. The first and second exams will each be held during a 70 minute scheduled class time, the third exam will be held during the final exam week. Each exam will be of equal weight for the final grade. Students are expected to take each of the three exams. Each exam will cover the material since the previous exam as indicated in the Syllabus schedule. Exams will use the Canvas Exam/Quiz function. Practice exam questions and study questions will be available for each week's topic.

Text book: Reading assignments each week will be from selected portions of chapters from the required textbook *The Biology of Cancer*, 2nd edition, 2014. Robert A. Weinberg, Garland Science, NY. 876 pp, DVD-ROM and Poster. Available at B&N RU Bookstore. ISBN: 978-0-8153-4220-5 (softcover). Used, rental, and eBook may be available at: <http://store.vitalsource.com/show/978-0-8153-4220-5>, or other sources.
A copy will be on reserve at the Library of Science and Medicine. RC268.4 W45 2014.

Topics: Each week's topics will be listed in the Syllabus. These will be the same topics as covered in the previous course taught on campus, including Oncogenes, Growth Factors, Signaling, Tumor Suppressor Genes, Cell Cycle Control, Apoptosis, Invasion and Metastasis, Rational Treatment of Cancer, Diagnosis and Therapy, Example tumor types such as Breast Cancer and Colon Cancer, Medical Statistics, Clinical Trials, and others.

This course is intended for Life Science majors or those with a strong background in the Biological Sciences. This course provides an overview of biomedical aspects of malignancy as deviations from the normal biological processes. It builds upon some topics covered in pre-requisite courses, including molecules, cells, tissues, and organisms; and expands upon concepts such as homeostasis and regulation. The course reviews how specific alterations in normal genetic, cellular, and physiological processes are altered in cancer, and how the human systems respond to cancer cells and tumors. The clinical application of these facts and concepts for

diagnosis, prognosis, prevention, and personalized therapy are discussed. Some specific cancer types are selected as examples, such as breast cancer, prostate cancer, colon cancer, melanoma, leukemia, and others. Current unmet medical challenges and possible future solutions are included.

How to study for this course: Students are expected learn by attending each class remotely, taking notes on the Instructor's lectures, reading and taking notes on the assigned chapters in the textbook, viewing and taking notes on the slides and videos, and reviewing all material. Students are responsible for all material assigned in the Syllabus, and covered in during class. Updates and revisions to the Syllabus will be posted in the course Canvas site and sent to the students via the email address listed in the course Canvas site.