ME.510 (ONCOLOGY CENTER)

Courses

ME.510.602. Organ Systems Foundations of Medicine - Neoplasia. 0 - 0 Credits.

ME.510.696. Research Elective in Oncology.

ME.510.697. Extramural Elective in Oncology. 0 - 0 Credits.

ME.510.699. Oncology Elective.

ME.510.700. Biology of Cancer. 1 Credit.
Emphasis is placed on the fundamental biological processes underlying oncogenesis, and factors affecting the progression of various neoplastic diseases. A basic foundation will be developed that will permit the student to approach various aspects of oncology including epidemiology, carcinogenesis, environmental issues, biologic behavior of the neoplastic cell, and the rationale for the use of various treatment modalities with understanding.

ME.510.701. New Approaches to Cancer Prevention and Therapy. 1 Credit.
Selected timely topics relevant to novel diagnostic and treatment techniques being developed for the management of patients with cancer are considered with a view toward illustrating the underlying principles. Emphasis is placed on illuminating the chemical and biologic basis of therapeutics and their translation impact on clinical practice.

ME.510.707. Statistics and Data Analysis Using R. 1 Credit.
The Data Analysis using R course is a hands-on introduction to the R statistical software suite. We assume that you are familiar with the plots and statistical summaries that are commonly used in biomedical papers, but no formal background in statistics or programming is necessary. Most class sessions are conducted as labs, so please bring your laptop and power cord, and be prepared to jump right into data analysis. In this course, you will find a mix of contents on data visualization techniques, data structure, basic statistical concepts and programming, etc. We hope that you will get comfortable working with data, and through this course, you will learn useful data visualization/analysis techniques.

ME.510.708. Cancer Screening and Prevention: History, Pitfalls, and Opportunities. 0.5 Credits.
This new course will review the history of successful and failed trials in early cancer detection and prevention. It will focus on the epidemiologic evidence and the political and public health ramifications of cancer screening. The course will trace the history of cancer prevention trials, including using dietary supplementation. Experiences in mammography, prostate cancer screening, and potential caveats for testing cancer screening approaches will be discussed. The interaction between scientific and public perception of these exchanges will be discussed. Methodology of study design, biases, and interpretation will be addressed. The course will be open to graduate and post-doctoral fellows across Johns Hopkins University. Undergraduate students may be able to attend with permission.