ETIOLOGY, PREVENTION, AND CONTROL OF CANCER
340.624.01

DATES: 2nd Term, Monday Oct. 28 – Friday Dec. 20, 2019
TIME: Monday, Wednesday and Friday 1:30 – 2:50 p.m.
LOCATION: Bloomberg School of Public Health, Room W4007

COURSE DESCRIPTION
This course emphasizes the role of epidemiology in cancer etiology, prevention, and control. The descriptive epidemiology, natural history, pathologic and biologic characteristics of selected cancers are compared and contrasted. Risk factors related to the etiology of these common cancers is reviewed. The influence of environmental and genetic factors and their interplay on the development of cancer are discussed. The epidemiologic issues and methods involved in the investigation of cancer are discussed. Principles and problems involved in cancer prevention, screening, and control are also covered. The course consists of faculty and guest lectures, and student presentations.

Course Director
Avonne Connor, PhD, MPH
Assistant Professor of Epidemiology and Oncology
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Course Teaching Assistant
Doctoral Student: Maneet Kaur, MPH
Email: mkaur@jhu.edu

Course learning objectives:
After successful completion of this course, students will be able to
1) Describe the epidemiology of common cancers in the United States
2) Discuss the major risk factors for common cancers
3) Identify effective strategies for cancer prevention and control at the population level
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<td>Cancer Control/In class and take-home assignment</td>
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<td>Nov 1</td>
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<td>Global Cancer</td>
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<td>Genetic basis of cancer</td>
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<td>Obesity and Cancer</td>
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<td>Final Exam</td>
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*** ORDER OF TOPICS MAY CHANGE.

DEPARTMENT OF EPIDEMIOLOGY LECTURERS INCLUDE
Corrine Joshu, PhD, MPH, MA Associate Professor
Epidemiology, Johns Hopkins Bloomberg School of Public Health

Gypsyamber D’Souza, PhD, MA Associate Professor
Epidemiology and International Health, Johns Hopkins Bloomberg School of Public Health
Member, Cancer Prevention & Control Program, Sidney Kimmel Cancer Center at Johns Hopkins

Elizabeth Platz, ScD Professor, Deputy Chair
Epidemiology, Johns Hopkins Bloomberg School of Public Health
Director, Cancer Epidemiology, Prevention, & Control Training Program
Leader, Cancer Prevention & Control Program, Sidney Kimmel Cancer Center at Johns Hopkins

Anne Rositch, PhD, MSPH Assistant Professor
Epidemiology, Johns Hopkins Bloomberg School of Public Health
Johns Hopkins Sidney Kimmel Comprehensive Cancer Center

Kala Visvanathan, MD, MHS Professor
Epidemiology, Johns Hopkins Bloomberg School of Public Health
Director of the Cancer Epidemiology Track, Department of Epidemiology
Director of the Clinical Cancer Genetics and Prevention Service
Member, Cancer Prevention & Control Program and the Breast and Ovarian Program, Sidney Kimmel Cancer Center at Johns Hopkins

Otis Brawley, MD, Bloomberg Distinguished Professor of Epidemiology and Oncology
Bloomberg School of Public Health and Sidney Kimmel Comprehensive Cancer Center

**GUEST LECTURERS INCLUDE**

Ryan Kennedy, PhD, Assistant Professor
Health Behavior & Society, Johns Hopkins Bloomberg School of Public Health
Institute for Global Tobacco Control (IGTC), Johns Hopkins

Eric Engels, MD, MPH, Senior Investigator
Division of Cancer Epidemiology and Genetics, Infections and Immunoepidemiology Branch
National Cancer Institute, NIH

John Groopman, PhD, Anna M. Baetjer Professor of Environmental Health
Environmental Health, Johns Hopkins Bloomberg School of Public Health
Associate Director for Cancer Prevention and Control, Sidney Kimmel Cancer Center

Maria Teresa Landi, MD, PhD, Senior Investigator
Division of Cancer Epidemiology and Genetics
National Cancer Institute, NIH

Alison Klein, MHS, PhD, Professor of Oncology, Pathology, and Epidemiology
Director of National Familial Pancreas Tumor Registry
Johns Hopkins Sidney Kimmel Comprehensive Cancer Center
Bloomberg School of Public Health

Jessica Yeh, PhD, Associate Professor
Johns Hopkins School of Medicine
Epidemiology, Johns Hopkins Bloomberg School of Public Health, Division of Cardiovascular Disease and Clinical Epidemiology

Thomas J. Smith MD, Harry J. Duffey Family Professor of Palliative Medicine
Director of Palliative Medicine, Johns Hopkins Medical Institutions  
Professor of Oncology, Sidney Kimmel Comprehensive Cancer Center  

Bert Vogelstein, MD, Clayton Professor of Oncology and Pathology  
Investigator, Howard Hughes Medical Institute  
Director of the Ludwig Center for Cancer Genetics and Therapeutics  
Sidney Kimmel Comprehensive Cancer Center

**STUDENT EVALUATION AND COURSE GRADE:**
Students are evaluated on the quality of two individually-prepared assignments, two group presentations, two in-class activities, and an exam, including their application of epidemiologic language and concepts, and their contributions to class discussions.

1. In class Exposure activity: 5%
2. In class Outcome activity: 5%
3. Cancer Control Project - Individually Prepared Assignment: 15%
4. Cancer Control Project - Group Presentation; one set of slides per group. All members of group receive same grade: 15%
5. Study Design Project - Individually Prepared Assignment: 15%
6. Study Design Project - Group Presentation; one set of slides per group. All members of group receive same grade: 15%
7. Exam at the end of the term: 25%
8. Participation in class discussions: 5%

**IN CLASS ACTIVITIES:**
Students will participate in two in-class activities on November 6th and November 27th. Specific instructions will be provided in class on the day of the activity. *Students unable to attend class on those dates should make arrangements in advance with instructor to complete the activity outside of class to receive credit.*

**CLASS PROJECTS:** Detailed instructions for each project will be provided in class in at least one week in advance of due dates. Below is an overview of each project.

**CANCER CONTROL PROJECT:**
Students will sign up for a cancer control topic. Students will receive a set of questions to accompany for their topic.

Individually prepared assignment – Students will individually prepare answers to the set of questions. Individually prepared answers are due via CoursePlus dropbox by 1:30pm on Wednesday, **November 13**.

Group Presentation – Together, students with the same cancer control topic will develop a 15-minute presentation that answers the set of questions for their topic. Students will present to the class on **Friday, December 6**. Group slides for the presentations are due via CoursePlus dropbox by 1:30pm on **Friday, December 6**.

**STUDY DESIGN PROJECT:**
The class will address a common research question using different study designs. Students will sign up for a study design type. Using that design, students will develop a study to address the common research question.
Individually prepared assignment – Students will individually develop a study using the selected design type. Individually prepared study design is due via CoursePlus dropbox by 1:30pm on Monday, December 16.

Group Presentation – Together, students with the same design type will develop a study to address the common research question. Groups will present a 20-minute presentation on their study. Students will present to the class on Monday, December 16. Group slides for the presentations are due via CoursePlus dropbox by 1:30pm on Monday, December 16.

The class will vote to determine which study(ies) best address the common research question.

TEXTBOOK AND READINGS:
Speakers provide citations for readings to accompany their lecture. These citations are posted on CoursePlus throughout the term. There are no required textbooks for this course. Citations for some suggested readings are listed below:

- Welch HG. Overdiagnosis in Cancer. JNCI 2010.
ADDITIONAL HELPFUL REFERENCES

Cancer Facts and Figures 2019

Cancer Prevention and Early Detection Facts and Figures 2017-2018

Cancer Facts and Figures for African Americans 2019-2021

Cancer Facts and Figures for Hispanics/Latinos 2018-2020

The Maryland Comprehensive Cancer Control Plan: Executive summary

Maryland Comprehensive Cancer Control Plan 2016-2020


Websites Relevant to Cancer Etiology, Prevention, and Control

National Cancer Institute: http://www.nci.nih.gov

SEER: http://seer.cancer.gov

CDC: http://www.cdc.gov/cancernpcr/uscs
ACADEMIC ETHICS AND STUDENT CONDUCT CODE

Students enrolled in the Bloomberg School of Public Health of The Johns Hopkins University assume an obligation to conduct themselves in a manner appropriate to the University's mission as an institution of higher education. A student is obligated to refrain from acts which he or she knows, or under the circumstances has reason to know, impair the academic integrity of the University. Violations of academic integrity include, but are not limited to: cheating; plagiarism; knowingly furnishing false information to any agent of the University for inclusion in the academic record; violation of the rights and welfare of animal or human subjects in research; and misconduct as a member of either School or University committees or recognized groups or organizations.

Students should be familiar with the policies and procedures specified under Policy and Procedure Manual Student-01 (Academic Ethics), available on the school’s http://my.jhsph.edu portal.

The faculty, staff and students of the Bloomberg School of Public Health and the Johns Hopkins University have the shared responsibility to conduct themselves in a manner that upholds the law and respects the rights of others. Students enrolled in the School are subject to the Student Conduct Code (detailed in Policy and Procedure Manual Student-06) and assume an obligation to conduct themselves in a manner which upholds the law and respects the rights of others. They are responsible for maintaining the academic integrity of the institution and for preserving an environment conducive to the safe pursuit of the School's educational, research, and professional practice missions.

DISABILITY SUPPORT SERVICES

If you are a student with a documented disability who requires an academic accommodation, please contact the Office of Disability Support Services at 410-502-6602 or via email at JHSPH.dss@jhu.edu. Accommodations take effect upon approval and apply to the remainder of the time for which a student is registered and enrolled at the Bloomberg School of Public Health.

CONFIDENTIALITY AND MANDATORY REPORTING

As instructors, one of our responsibilities is to help create a safe and inclusive learning environment on our campus. We also have mandatory reporting responsibilities related to our roles as Responsible Employees under the Sexual Misconduct Policy & Procedures (which prohibits sexual harassment, sexual assault, relationship violence and stalking), as well as the General Anti-Harassment Policy (which prohibits all types of protected status based discrimination and harassment). It is our goal that you feel able to share information related to your life experiences in classroom discussions, in your written work, and in our one-on-one meetings. We will seek to keep information you share private to the greatest extent possible. However, we are required to share information that we learn of regarding sexual misconduct, as well as protected status based harassment and discrimination, with the Office of Institutional Equity (OIE). For a list of
individuals/offices who can speak with you confidentially, please see Appendix B of the JHU Sexual Misconduct Policies and Laws located at [http://sexualassault.jhu.edu/policies-laws](http://sexualassault.jhu.edu/policies-laws).

For more information on both policies mentioned above, please see: JHU Relevant Policies Codes, Statements and Principles ([http://oie.jhu.edu/policies-and-laws/jhu-policies/index.html](http://oie.jhu.edu/policies-and-laws/jhu-policies/index.html)). Please also note that certain faculty and other University community members also have a duty as a designated Campus Safety Authority under the Clery Act to notify campus security of certain crimes, as well as a duty under State law and University policy to report suspected child abuse and/or neglect.