The mission of the Cancer Epidemiology Area of Concentration is to train future epidemiologists armed with the knowledge and skills to investigate:

- The causes of cancer, including host and environmental factors in human populations, and

- The strategies for cancer prevention and control in the general population and within disproportionately affected populations by i) providing a better understanding of cancer-related behaviors, ii) identifying new markers for the early detection of cancer, iii) providing a better understanding of cancer-related health disparities, and iv) identifying and addressing barriers to care.

The Cancer Epidemiology Area of Concentration provides education and research training to master's and doctoral students, and to post-doctoral fellows. This area of concentration is also the home of the Cancer Epidemiology, Prevention, and Control T32 training program; pre- and post-doctoral trainees supported by the training program should refer to their handbook for additional educational and research requirements.

Listed below is the required coursework for all master's and doctoral students in the Cancer Epidemiology Area of Concentration. With his or her advisor, each student should develop a tailored educational program consisting of the required and other methodologic and substantive courses to fit the student's cancer research and career interests. For example, some recent students have focused their educational programs on cancer etiology, cancer prevention, the genetic epidemiology of cancer, the epidemiology of cancer disparities, and cancer control. Post-doctoral fellows are not required to take courses, but they should discuss with their mentors the merits of taking methodologic or substantive courses to fill in the gaps in their pre-doctoral training or to complement their current research.

340.624 Etiology, Prevention and Control of Cancer (4) (2nd term, year 1)
340.611 Methodologic Issues in Cancer Epidemiology (3) (2nd term, year 2)
340.664 Introduction to Genetic Epidemiology (4) (1st term, year 1)
340.630 Population Genetics and Genetic Epidemiology (4) (2nd term, year 1)
120.615 Molecular Biology of Carcinogenesis (2) (3rd term, year 1)*
180.640 Molecular Epidemiology and Biomarkers in Public Health (4) (3rd term, year 2)

* The Department of Oncology / Sidney Kimmel Comprehensive Cancer Center plans to offer a new course the will cover cancer biology, treatment, and other topics relevant for students in cancer epidemiology starting in 2009-2010 academic year. Students may enroll in this new course in place of 120.615. Details on the course should be forthcoming. Contact Dr. Platz for an update.

In addition, all master's and doctoral students should take the Department of Epidemiology Basic Core Curriculum. To meet the Departmental requirements, students are required to take one or more epidemiologic survey courses outside of their area of concentration for a minimum of 3 total credits (see Basic Core Curriculum list of survey courses). For students in the Cancer Epidemiology Area of Concentration, the two following survey courses are recommended:
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340.627 Epidemiology of Infectious Diseases (4)
   (2\textsuperscript{nd} term, year 1 or 2)
340.607 Epidemiologic and Preventive Aspects of Cardiovascular Diseases (4)
   (3\textsuperscript{rd} term, year 1 or 2)

Some of the required and recommended courses are offered as internet courses. As consistent with Departmental and School requirements, taking the internet version of these courses is acceptable.

In addition to the Departmental and Cancer Epidemiology Area of Concentration course requirements and the course requirements, master’s and doctoral students and post-doctoral fellows are required to attend the two following venues for interactive information exchange:

Cancer Epidemiology, Prevention, and Control Journal Club:
4\textsuperscript{th} Monday of each month, 12:15-1:15 pm
Students, fellows, and faculty critically review recent articles focusing on population-based cancer research.

Cancer Epidemiology, Prevention, and Control Research in Progress:
2\textsuperscript{nd} Tuesday of each month, 12:15-1:15 pm
Students and fellows present their planned or ongoing research to obtain feedback from peers and faculty on handling of issues in the conduct of their data collection, statistical analysis, and inferences. Priority is given to doctoral students preparing for their thesis proposal presentation seminar.

Students and fellows also are encouraged to attend:

LunchLearnLink: Cancer Prevention and Control Seminar: ([http://cpc.onc.jhmi.edu](http://cpc.onc.jhmi.edu))
2\textsuperscript{nd} and 4\textsuperscript{th} Thursday of each month, noon to 1 pm
This seminar series provides a forum for faculty, fellows, and students from a number of disciplines to come together to hear faculty engaged in cancer prevention and control research from both the Bloomberg School of Public Health and the Sidney Kimmel Comprehensive Cancer Center.
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Required Courses by Term

1st term, year 1:
340.751 Epidemiologic Methods 1
*140.651 Methods in Biostatistics I (or 140.621 Statistical Methods in Public Health I)
550.865 Public Health Perspectives in Research, part 1
340.664 Introduction to Genetic Epidemiology
550.860 Research Ethics offered as an internet course each term (or 306.665 Research Ethics and Integrity offered 3rd term)

2nd term, year 1:
340.752 Epidemiologic Methods 2
*140.652 Methods in Biostatistics II (or 140.622 Statistical Methods in Public Health II)
550.866 Public Health Perspectives in Research, part 2
340.624 Etiology, Prevention, and Control of Cancer
340.630 Population Genetics and Genetic Epidemiology
340.627 Epidemiology of Infectious Diseases (or 340.607 Epidemiologic & Preventive Aspects of Cardiovascular Diseases offered 3rd term)

3rd term, year 1:
340.753 Epidemiologic Methods 3
*140.653 Methods in Biostatistics III (or 140.623 Statistical Methods in Public Health III)
120.615 Molecular Biology of Carcinogenesis (or new course offered in the Department of Oncology / Sidney Kimmel Comprehensive Cancer Center – contact Dr. Platz for details)
306.665 Research Ethics and Integrity (or 550.860 Research Ethics offered as an internet course each term)
340.607 Epidemiologic & Preventive Aspects of Cardiovascular Diseases (or 340.627 Epidemiology of Infectious Diseases offered 2nd term)

4th term, year 1:
*340.754 Methodologic Challenges in Epidemiologic Research
*140.654 Methods in Biostatistics IV (or 140.624 Statistical Methods in Public Health IV)

1st term, year 2:
**340.863 Doctoral Seminar in Epidemiology, part 1

2nd term, year 2:
**340.863 Doctoral Seminar in Epidemiology, part 2
340.611 Methodologic Issues in Cancer Epidemiology

3rd term, year 2:
**340.863 Doctoral Seminar in Epidemiology, part 3
180.640 Molecular Epidemiology and Biomarkers of Public Health

4th term, year 2:
**340.715 Problems in the Design of Epidemiologic Studies

*Doctoral students are encouraged to take the Methods in Biostatistics series (140.651, 140.652, 140.653, 140.654). May be taken in the 2nd year after taking the Statistical Methods in Public Health series (140.621, 140.622, 140.623, 140.624) in the 1st year.
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*Required for doctoral students. Master’s students may also enroll in this course.

**Doctoral students only.

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