

# RISK SCIENCES AND PUBLIC POLICY, CERTIFICATE

## Risk Sciences and Public Policy Certificate Program OVERVIEW

**NOTE: This certificate program can be completed entirely online**

Risk professionals are under increased pressure to interpret complex environmental and health situations in creative ways. The certificate program provides multidisciplinary education designed to increase awareness of the scientific underpinnings of risk assessment and provide a bridge between science and policy that allows innovative public health solutions to complex problems. Risk assessment methods are applied to address a wide range of environmental and public health issues including chemical, microbiological, radiological exposures, natural and man-made disasters, and to evaluate new technologies. Risk assessors are employed in academic, governmental and non-governmental organizations across multiple sectors such as agriculture, energy, environmental protection, armed forces, public health, and transportation.

## EDUCATIONAL OBJECTIVES

Upon conclusion of the Risk Sciences and Public Policy certificate program, the student will:

1. Be able to describe the importance of risk assessment in examining public health problems;
2. Be able to describe the methods of risk assessment and their applicability to public health problems;
3. Be able to discuss the scientific basis for assessing environmental and other public health risks;
4. Be able to complete and document a basic quantitative risk assessment for a chemical exposure;
5. Be familiar with the policy implications of the scientific relationships for reducing public health risks.

## Admissions

Complete certificate program admissions information is available on the certificate program page (<https://publichealth.jhu.edu/academics/risk-sciences-and-public-policy-certificate-program/>) on the Bloomberg School of Public Health website.

## Sponsoring Departments

Health Policy and Management (<https://publichealth.jhu.edu/departments/health-policy-and-management/>)  
Environmental Health and Engineering (<https://ehe.jhu.edu/>)  
Epidemiology (<https://publichealth.jhu.edu/departments/epidemiology/>)

## REQUIREMENTS FOR SUCCESSFUL COMPLETION

The certificate program requires a minimum of 26 term credits. All required and elective courses must be taken for a letter grade; a minimum grade of C is required in all certificate coursework and students must

maintain a 2.75 or better overall GPA for all certificate coursework. The certificate program length is flexible; it varies from student to student, however, the certificate program must be completed within three years.

The student should review the section of the website that addresses completion (<https://publichealth.jhu.edu/academics/certificate-programs/requirements-for-successful-completion-of-a-certificate-program/>) before completing certificate program requirements.

The student's transcripts will not indicate that the certificate was earned until the Notification of Completion has been submitted, verified by the certificate program, and processed by the Registrar.

## COURSE OF STUDY

The core curriculum consists of four core risk assessment and policy courses as well as three risk science courses that will introduce students to methods of risk assessment and its applications to public policy.

Students should check the BSPH course directory (<https://publichealth.jhu.edu/courses/>) to confirm when the courses are offered. Students should also check for pre-requisites and whether instructor consent is required.

Code	Title	Credits
PH.550.860	Academic & Research Ethics at BSPH (All students are required to complete this online noncredit course in their first term of study)	

Required Courses		
PH.317.600	Introduction to the Risk Sciences and Public Policy (typically offered onsite in 1st and online in 4th term)	4
PH.317.605	Methods in Quantitative Risk Assessment (typically offered online in 1st term and onsite in 3rd term)	4
PH.317.610	Risk Policy, Management and Communication (typically offered onsite in 2nd term and online in 4th term)	3
PH.317.615	Topics in Risk Assessment (typically offered online in 2nd term and onsite in 4th term. Of the 4 required courses, this one should be taken last)	2

*In addition to the four core courses, students must also take three risk sciences courses which must include one toxicology course, one course in Epidemiology and one course in Biostatistics*

PH.187.610	Public Health Toxicology (typically offered online in 2nd term and onsite in 1st term)	4
PH.187.632	Molecular Toxicology	4
PH.187.645	Toxicology 21: Scientific Applications	3

*Students must select one of the following courses in epidemiology:*

PH.340.601	Principles of Epidemiology (typically offered onsite in Summer and Summer Institute)	5
PH.340.680	Environmental and Occupational Epidemiology (typically offered onsite and online in 4th term)	4
PH.340.721	Epidemiologic Inference in Public Health I (typically offered online in 1st and 3rd term)	5
PH.340.722	Epidemiologic Inference in Public Health II (typically offered onsite in 2nd term and online in 4th term)	4
PH.340.751	Epidemiologic Methods 1 (typically offered onsite and online in 1st term)	5

PH.340.769	Professional Epidemiology Methods (typically offered onsite in 3rd term)	4
<i>To satisfy the Biostatistics requirement, students must select either (140.612 and 140.613), or 140.616, or 140.622, or 280.345</i>		
PH.140.612	Statistical Reasoning in Public Health II (please note course prerequisites; course must be taken with 140.613; course is typically offered onsite and online in 2nd term and Summer Institute)	3
PH.140.613	Data Analysis Workshop I (course must be taken with 140.612; course is typically offered onsite and online in Summer and Winter Institutes)	2
PH.140.622	Statistical Methods in Public Health II (course is typically offered onsite and online in 2nd term)	4
PH.140.616	Statistics for Laboratory Scientists II (typically offered onsite in 4th term)	4
AS.280.345	Public Health Biostatistics (This is an undergraduate level course offered at the Johns Hopkins University's Krieger School of Arts and Sciences campus. The course is an acceptable course only for those Johns Hopkins University undergraduates who are accepted into the Risk Sciences and Public Policy certificate program.)	4
<i>Optional Data Analysis Supplement Option for Students who Complete 140.612 Statistical Reasoning in Public Health:</i>		
PH.182.613	Exposure Assessment Techniques for Health Risk Management (typically offered onsite and online in 3rd term)	3
PH.340.701	Epidemiologic Applications of Gis (typically offered online in Summer Institute and 3rd term)	2