

# VACCINE SCIENCE AND POLICY, CERTIFICATE

## Vaccine Science and Policy Certificate Program

### EDUCATIONAL OBJECTIVES

The certificate program provides a framework for understanding vaccine science and policy, from clinical research to implementation, in both the United States and internationally.

After successfully completing this certificate program, students will be prepared to:

1. Understand the detailed process of developing, preparing, evaluating and using vaccines;
2. Identify, analyze, and critique cutting-edge strategies for approaching vaccine development;
3. Identify and describe the scientific and policy obstacles preventing development of effective vaccines for several important human pathogens;
4. Understand current national and international policy issues in vaccine research, development, manufacturing, supply and utilization;
5. Understand global finance policies and strategies for funding vaccine research and development, for purchasing vaccines, and for the implementation and evaluation of vaccine delivery programs and campaigns;
6. Communicate with the key stakeholders and institutions involved in formulating vaccine policy in the United States and globally;
7. Explain policy and regulatory requirements and their application in clinical vaccine trials to assure quality and protection of human subjects;
8. Explain the Good Clinical Practice standards for the design, conduct, performance, monitoring, auditing, recording, analyses, and reporting of clinical vaccine trials.

### ADMISSIONS

Contact information and complete certificate program admissions information is available on the certificate program page (<https://publichealth.jhu.edu/academics/vaccine-science-and-policy-certificate-program/>) on the Bloomberg School of Public Health website

### Sponsoring department

International Health (<https://www.jhsph.edu/departments/international-health/>)

### REQUIREMENTS FOR SUCCESSFUL COMPLETION

The certificate requires a minimum of 18 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://www.jhsph.edu/academics/certificate->

[programs/JHSPH\\_certificate\\_completion.html](#)) before completing certificate program requirements. The student's transcript will not indicate that the certificate was earned until the Notification of Completion form has been submitted and verified by the certificate program and processed by the School of Public Health Registrar.

### COURSE OF STUDY

Students should check the JHSPH course directory (<https://www.jhsph.edu/courses/>) for information about when the courses are offered. Students should also check for prerequisites 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)	
<b>Required Course- 2 terms are required</b>		
PH.223.867	Special Topics in Vaccine Science (1 credit per term; typically offered onsite in 2nd and 3rd terms)	1
<b>Core Vaccine Courses (select at least 3 of the 4 core courses)</b>		
PH.223.662	Vaccine Development and Application (typically offered onsite in 2nd term)	4
PH.223.687	Vaccine Policy Issues (typically offered onsite in 3rd term)	3
PH.223.689	Biologic Basis of Vaccine Development (typically offered onsite in 4th term)	3
PH.223.705	Good Clinical Practice: A Vaccine Trials Perspective (typically offered online in 4th term)	4
<i>Elective Vaccine Courses (students should select courses from the following list to complete at least 18 total credits of certificate coursework)</i>		
PH.120.603	Molecular Biology of Pandemic Influenza (typically offered onsite in 2nd term)	3
PH.223.663	Infectious Diseases and Child Survival (typically offered onsite in 3rd term)	3
PH.223.664	Design and Conduct of Community Trials (typically offered onsite in 3rd term)	4
PH.223.680	Global Disease Control Programs and Policies (typically offered onsite and online in 4th term)	4
PH.223.682	Clinical and Epidemiologic Aspects of Tropical Diseases (typically offered onsite in 4th term and online in 2nd term)	4
PH.260.611	Principles of Immunology I (typically offered onsite in 1st term)	4
PH.260.612	Principles of Immunology II (typically offered onsite in 2nd term)	3
PH.260.631	Immunology, Infection and Disease (typically offered onsite in 2nd term)	3
PH.260.656	Malariology (typically offered online in 3rd term)	4
PH.260.717	Graduate Immunology: the Immune Response (typically offered onsite in 4th term)	3
PH.306.665	Research Ethics and integrity: U.S. and International Issues (typically offered onsite in 3rd term)	3
PH.340.627	Epidemiology of Infectious Diseases (typically offered onsite and online in 2nd term)	4

PH.340.646	Epidemiology and Public Health Impact of HIV and AIDS (typically offered onsite in 1st term and online in 2nd term)	4
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