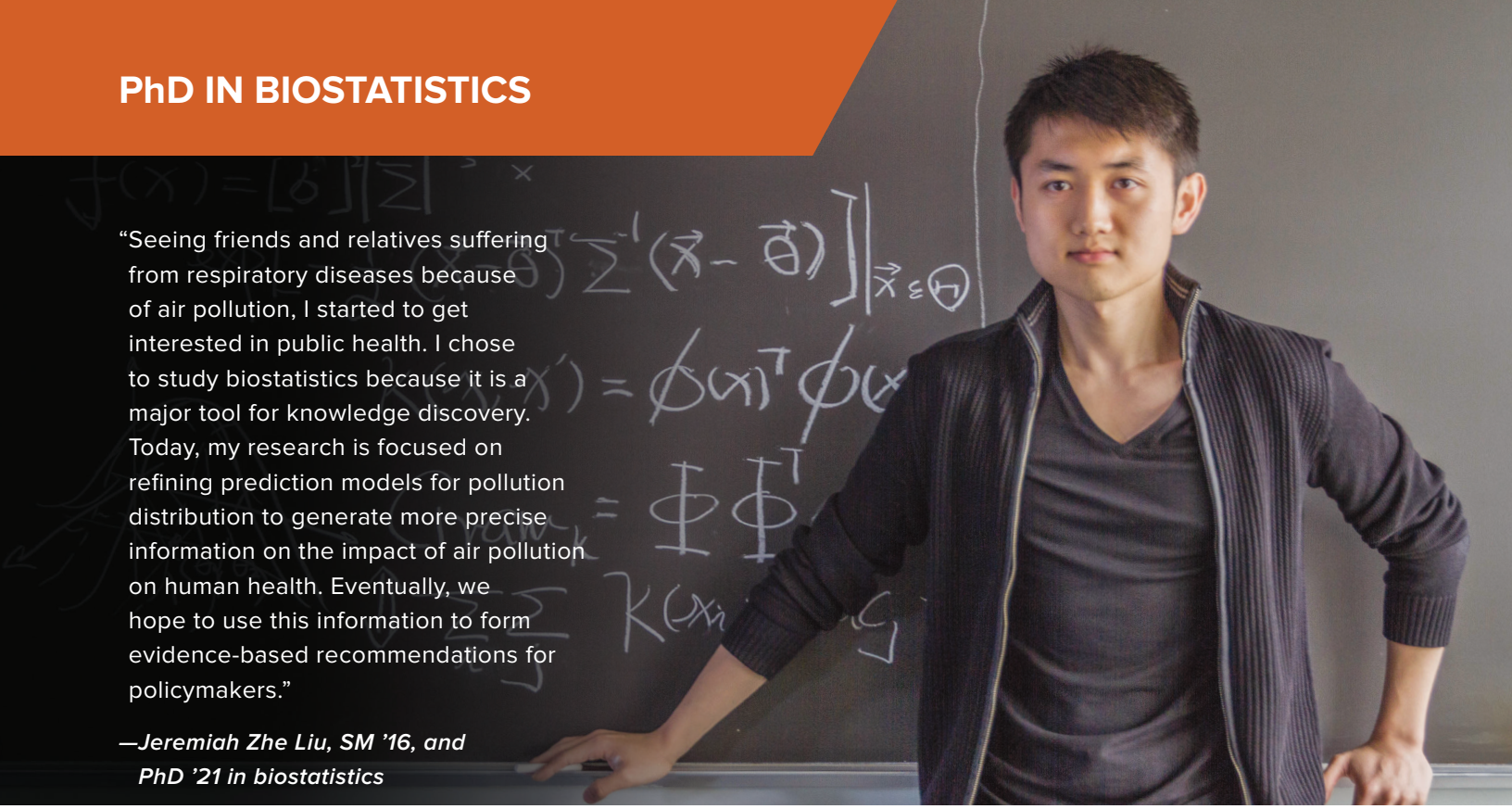
PhD IN BIOSTATISTICS



"Seeing friends and relatives suffering from respiratory diseases because of air pollution, I started to get interested in public health. I chose to study biostatistics because it is a major tool for knowledge discovery. Today, my research is focused on refining prediction models for pollution distribution to generate more precise information on the impact of air pollution on human health. Eventually, we hope to use this information to form evidence-based recommendations for policymakers."

—Jeremiah Zhe Liu, SM '16, and PhD '21 in biostatistics

Prepare for a career at the forefront of biostatistics and bioinformatics theory and practice

As a PhD in biostatistics candidate at the Harvard T.H. Chan School of Public Health, you will develop deep expertise in the theory and practice of biostatistics and bioinformatics, working alongside faculty who are leaders in both statistical theory and its application to health research. You will learn to work with big data and use powerful statistical tools to drive discovery using complex datasets. You will also conduct original research in collaboration with laboratory, clinical, and biomedical scientists from around the globe to identify and solve problems that threaten the lives and health of people everywhere.

CAREERS

With a PhD in biostatistics from the Harvard Chan School, you will be prepared for a high-impact career in academia or a research or leadership role in government or within the health care, pharmaceutical, or biomedical industries. You will also be positioned to play an important role in safeguarding public health and improving lives through quantitative research.

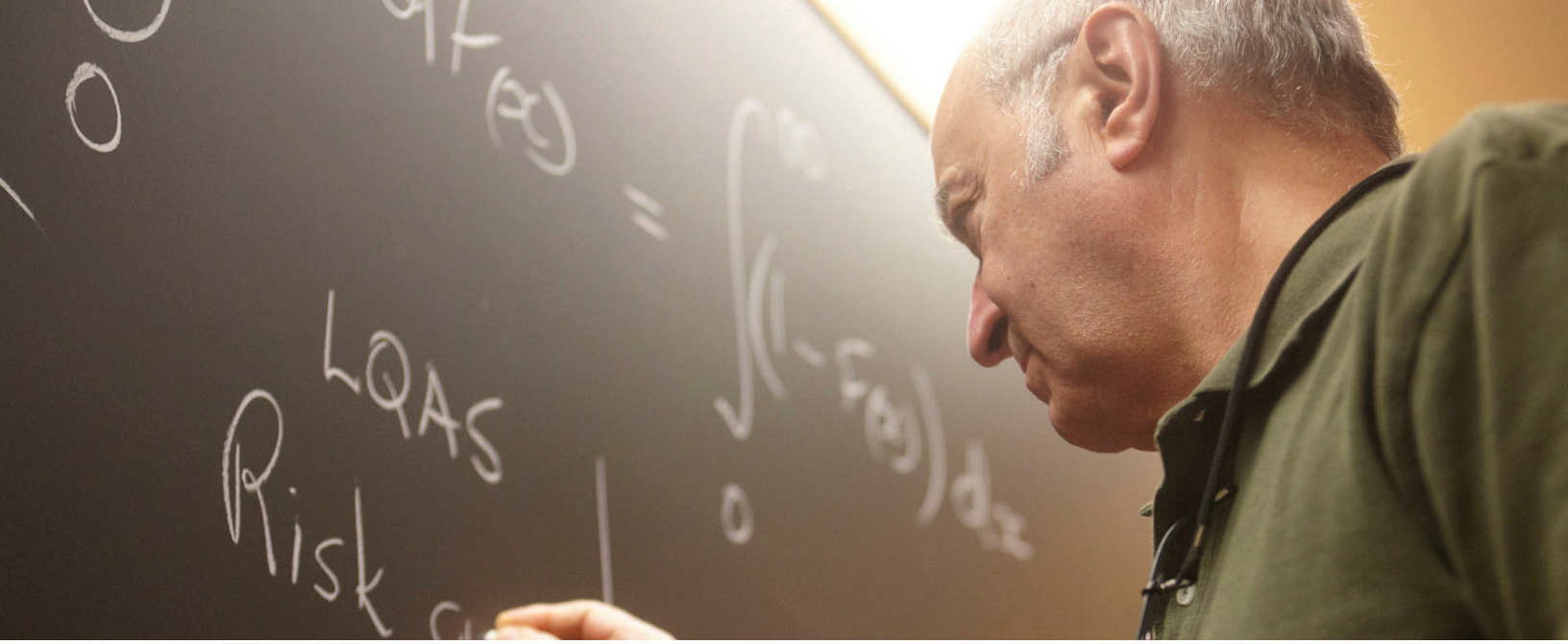
CURRICULUM

The PhD in biostatistics curriculum is focused on devising solutions to public health problems through the development of five key competencies in every student:

1. **Applying innovative probabilistic and statistical theory and computing approaches to the development of new biostatistical or bioinformatics methods, and publishing this original research in academic journals**
2. **Providing leadership in the design, conduct, and analysis of collaborative research studies in medicine and public health**
3. **Applying modern statistical and computational methods to effectively analyze complex medical and public health data, including the development of new software for nonstandard problems and simulation methods**
4. **Collaborating and communicating effectively with research scientists in related disciplines**
5. **Teaching biostatistics or bioinformatics effectively to health professionals, research scientists, and graduate students**

HARVARD T.H. CHAN
SCHOOL OF PUBLIC HEALTH

HARVARD UNIVERSITY
The Graduate School of Arts and Sciences



FUNDING

All students admitted to the PhD in biostatistics program, including international students, are guaranteed full funding, which includes a stipend as well as tuition and health insurance for five years, provided they make satisfactory progress.

WHO SHOULD APPLY?

All candidates for admission to the PhD in biostatistics program must have a strong background in mathematics—with college-level coursework successfully completed through multivariable calculus and at least one semester of linear algebra—as well as knowledge of at least one computer programming language.

We strongly encourage additional coursework in quantitative areas including probability, statistics, numerical analysis, and advanced calculus or real analysis, as well as in biology, computational biology, and genetics (if interested in bioinformatics). Experience using a statistical computing platform such as SAS, Splus, R, Stata, or SPSS is also encouraged.

Knowledge of a scripting language such as Python or Perl and some familiarity with relational databases is recommended for those interested in bioinformatics.

APPLICATION PROCESS

Like all PhD (doctor of philosophy) programs at the School, the PhD in biostatistics is offered under the aegis of the Harvard Graduate School of Arts and Sciences (GSAS). Applications are processed through the GSAS online application system located at **gsas.harvard.edu/admissions/apply**.

OUR COMMUNITY: COMMITTED, ACCOMPLISHED, COLLABORATIVE

As a student in the PhD in biostatistics program, you will join a community of leading scientists and educators from around the world, working alongside world-renowned faculty members and collaborating with peers from across the globe. Our location in the heart of Boston's Longwood Medical Area—home to Harvard Medical School, the Dana-Farber Cancer Institute, and many world-class hospitals—makes collaboration with eminent laboratory and clinical researchers a natural part of the educational experience. And when you graduate, you will benefit from Harvard's unparalleled global network of alumni leaders.

LEARN MORE

Visit our website at
www.hsph.harvard.edu/biostatistics

biostat_admissions@hsph.harvard.edu

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