Master of Science in Biostatistics

Thinking beyond the possible

Learn from and work alongside leading data scientists and clinical experts to change medical practice and save lives.
Master of Science in Biostatistics

As a biostatistician, you’ll design compelling clinical research studies, analyze health data and inform the creation of clinical standards of care that save lives and improve health. Through our rigorously designed program, we’ll prepare you for admission to a PhD program, a clinical career designing your own studies, or a rewarding job that combines coding, data management and analysis as a statistical programmer.

Earning a degree in biostatistics from Case Western Reserve University’s top-25 medical school not only gives you the knowledge and skills to help shape health care and research—it connects you with nationally renowned medical leaders on our campus and at four affiliated hospitals, including Cleveland Clinic and University Hospitals.

Our master’s program offers four specialty tracks aligned to unique career pathways.

- Biostatistics — generalist
- Health care analytics
- Genomics and bioinformatics
- Social and behavioral science

The Right Path for You

Be a generalist or tailor your professional studies to academic medical centers, pharmaceutical companies, doctoral programs, academia, genomics labs or social/behavioral science research organizations. No matter which track you choose, you’ll complete a common, comprehensive core.

You’ll receive one-on-one interaction, advising and mentoring with faculty that’ll drive your individualized experience in the program. Two-thirds of your classes (nearly all in-person) will contain fewer than 20 students, allowing you to forge real relationships and build a diverse network.

“Health research needs more attention right now because many actions and policies are not possible without the help of health research. In this field, I see our role as in-between statisticians and medical researchers because we have to be able to speak both languages—and the world is going to need more biostatisticians.”

Jason Huang, Class of 2020, Biostatistician, University of Pittsburgh
An interdisciplinary education

As a master’s student in our biostatistics program, you’ll share classes not only with students from the Department of Population and Quantitative Health Sciences’ other six graduate programs, but also students from programs across campus. Other schools often segregate biostatistics into a departmental niche, but the need for data expertise spans every specialty. Our department makes sure to expose our students to multiple synergistic disciplines. As a result, you’ll learn how future collaborators—social workers, doctors, hospital administrators and more—think and work.

Swift but flexible training

Not only will you train comprehensively—you’ll train efficiently. You can choose to complete this master’s program in either 11 or 16 months, depending on your needs and interests. (If you’re an international student, you may choose a two-year program.)

Select your pace

Our 11-month program is an intensive option most universities don’t offer. You’ll move quickly toward a degree, gaining the knowledge and experience you need to be competitive in the market. (Trust us; we talked with employers to find out exactly what they’re looking for in candidates.)

Or, to balance your training with work and other commitments, choose a less accelerated pace. You’ll receive the same personalized attention and training, just over a longer timeframe.

An internship or practicum developed for you

What exactly did employers tell us about their most competitive hires?

We learned that those looking to switch careers or “upskill” benefit most from hands-on experience with particular tools, professional settings and methodologies. So, if that’s you, we won’t make you labor over a thesis. Instead, you can choose a 160-hour internship or practicum developed for you. That way, you can make professional connections and sample life as a biostatistician before you take up this critical discipline. And that’s just one example.

Because student internships can lead to permanent jobs, we want to help you land a spot where you want to live. You can complete your internship anywhere in the world, and we’ll help set it up for you.

What Our Alumni Do Next

Our graduates typically continue on to a PhD program, work as lead investigators in research or enter the workforce in a health-care-related field. Graduates have joined professional teams and research departments at Cleveland Clinic, National Institutes of Health, University Hospitals, MetroHealth Medical Center, University of Pittsburgh, University of Utah.

Other recent graduates have gone on to PhD programs at John Hopkins University, University of North Carolina–Chapel Hill and Washington University at St. Louis.
About Cleveland
Fewer than 5 miles from Case Western Reserve’s campus is Cleveland’s bustling downtown, complete with the Rock and Roll Hall of Fame, renowned restaurants, major league teams, and Playhouse Square, the nation’s No. 1 arts district, according to USA Today. Nearby, there’s also Lake Erie and access to a 24,000-acre public park system.

Case Western Reserve University School of Medicine is affiliated with Cleveland Clinic, Louis Stokes VA Medical Center, University Hospitals and MetroHealth Medical Center (a county hospital). The first three are within walking distance, while MetroHealth is just a 15-minute drive. The school ranked No. 22 in annual National Institutes of Health funding in 2020 by Blue Ridge Institute for Medical Research.

As an incoming student, I had a bachelor’s degree in biology—I certainly didn’t have a heavy mathematical or computing background. The curriculum was well designed to allow students like myself to thrive, without sacrificing the knowledge necessary to succeed as an applied biostatistician.”

Jordan K. Fiegl, Class of 2019
Research Data Scientist, The MetroHealth System

“All of the students and the professors are really friendly. Most of my classmates did practicums at MetroHealth, University Hospitals and Cleveland Clinic. You have a lot of opportunity to access real projects and collaborate with the doctors and with researchers.”

Shufen Cao, Class of 2019
Research Associate, Case Comprehensive Cancer Center
Application Details

At Case Western Reserve, we evaluate your application as a whole, which means there are no minimum GPA requirements or GRE scores. This allows you to bring your individual strengths to a discipline requiring innovation. Your STEM-based background will serve as a foundation for new skills and approaches you’ll learn in the field of biostatistics.

How to Apply
Complete your application online at applygrad.case.edu/apply. Please indicate that you are applying to the School of Medicine’s biostatistics program.

Include required materials:
- School-issued unofficial transcripts, scanned and uploaded for all colleges or universities attended.
- Your current resume/CV outlining all work experience and volunteer roles with timeframes.
- Three letters of recommendation (at least one should be a professor who can attest to your academic or professional experience).
- A one- to two-page statement of purpose.
- $50 application fee.
- Test scores: Self-report and upload your test-taker copy of the GRE or other standardized test scores.
- For international applicants: If you are not a citizen of an English-speaking country, or if your previous college or university program was not taught in English, please submit an English proficiency exam (IELTS, TOEFL, or PTE).

Request more information
Need to know more about course offerings, faculty members or something else? Fill out a request form at applygrad.case.edu/register/med-info.

Reach out directly
Have specific questions? Contact us at ms-biostatistics@case.edu.