



What next?



«My goal is to work in a pharmaceutical company and analyze medical data or data related to public health. I have been in the program for one year now and I get more and more convinced that it is a very good choice for me. It provides very practical and interesting statistical knowledge; meanwhile, the curriculum structure is arranged in a systematic way so that I can follow it easily with my bachelor in Chemistry. I will start my master thesis in the coming semester, it is about using linear mixed models to analyze HIV data. This topic is exactly what I would like to do in the future. There is still a long way to go for my goal but I know I am on the right path now!»

Ruizhu Huang, master student

Application

To apply for the program send a motivation letter, a complete CV, a complete set of transcripts, detailed contents of all mathematical classes and proof of a sufficient level in English to

Prof. Dr. Reinhard Furrer
Institute of Mathematics
University of Zurich
Winterthurerstrasse 190
CH-8057 Zurich

Application deadlines

Spring semester: September 15

Fall semester: February 15

It is recommended to start the program in the fall semester.

Admission

All applications will be considered on a case-by-case basis by the admission committee. The selected candidates are afterwards invited to apply for admission to UZH by the University Admission Office.

Information

→ www.int.uzh.ch/in_en.html for international students

→ www.uzh.ch/studies/studentlife_en.html for life at the UZH

Contact

→ masterbiostat@math.uzh.ch

→ www.math.uzh.ch/biostat



Master of Science in Biostatistics

The science of analyzing and interpreting
biomedical data



Master of Science in Biostatistics

Overview

Biostatistics as a scientific discipline is driven by a strong interaction between problems from biomedical research and rigorous mathematical analysis.

Appropriate statistical methodology is necessary to solve complex challenges for example in:

- environmental and infectious disease epidemiology
- personalized and evidence-based medicine
- molecular life sciences, e.g., genomics, proteomics, epigenomics

Outstanding features of the program

- only degree in Biostatistics in Switzerland
- excellent career perspectives for quantitative scientists
- broad perspective since jointly offered by the Division of Biostatistics of the Faculty of Medicine and the Institute of Mathematics of the Faculty of Science
- direct link to new PhD program in Epidemiology and Biostatistics at UZH

Structure

- For candidates with sufficient background in statistics and mathematics
- English language program
- 90 ECTS required, completed in most cases in three to four semesters
- Concluded with a master's thesis of approximately six months full-time, independent research and a master's exam

Prerequisites

Bachelor or master degree including

- probability and statistics (9 ECTS)
- analysis (6 ECTS)
- linear algebra (3 ECTS)
- sufficient level of English

If not all prerequisites are met by a candidate the admission committee may decide that these can be acquired at UZH at the beginning of the program.

«I chose the Biostatistics Master and UZH because my interest in statistics is in the applications that make a difference for people. The courses have had a good mix of statistical theory, applied problems, computer programming and the ethical and other real life challenges that come from doing research on people. Although I had a background in mathematics and statistics, I found the lectures to be challenging and interesting and I have learnt a lot.»

Isaac Gravestock, master student

Semester 1

Statistical Methods in Clinical Research

Likelihood Inference

Generalized Regression

Statistical Methods for Microarray and Short-Read Sequencing

Concepts of Modern Genetics

Semester 2

Statistical Methods in Epidemiology

Biostatistics Journal Club

Statistical Consulting

Statistical Methods in Infectious Disease Epidemiology

Survival Analysis

Bayesian Inference

Bioinformatics

Semester 3

Master's thesis

Master's exam

Compulsory modules

Examples of elective modules

