



Contact Information

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The Professional Science Masters Degree in Biostatistics



Center for Health Sciences

PSM
PROFESSIONAL
SCIENCE MASTER'S



**GRAND VALLEY
STATE UNIVERSITY**

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The Professional Science Masters Degree in Biostatistics



? Why would I consider a graduate degree in Biostatistics at Grand Valley State University?

? What is a Professional Science Masters and how would it benefit me?

? What is required to obtain the degree?

? Who do I contact for more information?

For the answers, read on!

Biostatistics

Biostatistics is the application and development of statistical techniques for scientific research in the life and health sciences. These disciplines include clinical medicine, biology, epidemiology, environmental health, wildlife and fisheries, forestry, and agriculture.

Biostatisticians participate at many levels in the acquisition of knowledge from biological data. Biostatisticians are involved in study design, data management, data analysis, consulting, statistical training, and the development or application of statistical software.

Masters level biostatisticians are in demand in industry, research institutions, government, and academia. This demand results in higher starting salaries within exciting scientific work environments.

GVSU Biostatistics and the Professional Science Masters Degree

At Grand Valley State University, we have a strong faculty in statistics and also in biomedical disciplines. The new graduate program in biostatistics will maintain an applied focus with a 'hands-on' approach. The objective of our M.S. program in Biostatistics is to prepare professional biostatisticians who are capable of taking leadership in the application of statistics to the biological and health sciences.

The Biostatistics M.S. will have a core statistics curriculum, but it will also be interdisciplinary. Biostatistics students will take four common courses in applied science with graduate students in Bioinformatics and Biotechnology. Completing the degree as a part-time student will also be straight forward with proper communication with faculty.

The new Biostatistics Masters is a Professional Science degree. Features of this progressive type of program include:

- a more practical and applied degree than a traditional masters,
- career-orientation,
- cross-disciplinary coursework,
- close ties to the scientific and business workforce, and
- valuable internship experience.

The Grand Valley Biomedical Community

Grand Valley State University is uniquely positioned for launching our new Biostatistics program. Grand Rapids is on the western end of the 'Life Sciences Research Corridor', the life sciences are part of the state's recent 'technology tri-corridor', and Grand Valley is partnering with the city of Grand Rapids on an economic 'SmartZone' in the biotechnology sector.

The biostatistics program will be housed in Grand Valley State's new state-of-the-art Cook-DeVos Center for Health Sciences in downtown Grand Rapids. New computer labs and the Bioinformatics Laboratory in the Cook-DeVos Center will be utilized by biostatistics students. The Center is located near the Van Andel Research Institute, Spectrum Health, and St. Mary's Mercy Medical Center. These partners in the scientific healthcare community and other businesses have already given formal support for internships and continuing assistance.

Curriculum

The Professional M.S. in Biostatistics consists of 36 credits with a minimum cumulative GPA of 3.0.

Four common courses (11 credits) are shared with the other Professional Science Masters programs in Medical Bioinformatics and Biotechnology:

- STA 610 Applied Statistics for Health Professions or STA 622 Statistical Methods for Biologists,
- CMB 610 Foundations of Biotechnology,
- CS 661 Introduction to Medical/Bioinformatics, and
- PSM 650 Ethics and Professionalism in Applied Science

Common seminar courses (PSM 661 and PSM 662) are important inter-disciplinary opportunities for the three programs. The internship (PSM 691, minimum 4 credits) takes place in partnering workplace organizations. These experience(s) will be supervised by Grand Valley faculty to meet properly outlined criteria and objectives.

Directed Courses (credits in parentheses):

- STA 616 Statistical Programming (3)
- STA 621 Design of Experiments and Regression (4)
- STA 623 Categorical Data Analysis (2)
- STA 625 Clinical Trials (2)
- STA 630 Perspectives in Advanced Biostatistics (3)

Electives (4 credit minimum) are selected, with advisor approval, based on interest and relevance.