

# MS - Data Science in Public Health

## ABOUT THE PROGRAM

The MS Biostatistics program with concentration in Data Science in Public Health prepares students to harness data management, mining and analytics, machine learning, and computational tools to analyze large-scale clinical and health data, identify trends, and create evidence-based solutions for improving population health. The program may be completed full-time (in four semesters) or part-time (completion varies) on-campus.

## IS THIS DEGREE FOR YOU?

- Those with a strong interest in contributing to public and population health at the level of the community, region, nation or globe as a data science expert
- Students with a desire for a deep understanding of underlying health issues and the ability to identify the most efficient computing algorithms and best analytical approaches
- If you have interest in continuing as a doctoral student in Data Science or related fields, this degree is for you

## ENHANCE YOUR EXPERIENCE AND SKILLS

Students can enhance their skills through graduate certificates in one of the following areas, or create their own plan in consultation with an academic advisor:

- Health Analytics
- Population Health Informatics
- Health Systems Leadership
- Population Health
- Applied AI in Population Health Outcomes
- Implementation Science

## WHERE OUR GRADUATES ARE

Graduates of the program are employed as health data analysts in federal, state and local health departments, pharmaceutical companies, and nonprofit organizations and hospitals.

## MASTER OF SCIENCE IN BIostatISTICS

### DATA SCIENCE IN PUBLIC HEALTH

## 36 CREDIT HOURS

### TO APPLY:

- Completed SOPHAS application
- Undergraduate degree with minimum GPA of 3.0 and have completed Calculus I and Calculus II with a grade of B or higher
- Curriculum Vitae/Resume
- Statement of Purpose (400-500 words)
- Two (2) letters of recommendation
- Credentials evaluation for foreign transcripts
- Language proficiency test if language of instruction was not English



## CURRICULUM

### CORE COURSES - 6 CREDIT HOURS

PUBH 7180 | Foundations of Public Health (0 credit hours)

PUBH 7150 | Introduction to Biostatistics

PUBH 7170 | Principles of Epidemiology

### CONCENTRATION COURSES - 18 CREDIT HOURS

PUBH 7152 | Biostatistical Modelling and Applications

PUBH 7310 | Mixed Model Regression Analysis

PUBH 7311 | Applied Categorical Analysis

PUBH 7410 | Biostatistical Machine Learning in Public Health

COMP 7115 | Database Systems

PUBH 7302 | SAS in Public Health

### ELECTIVE COURSES - 9 CREDIT HOURS

In consultation with faculty and/or academic advisors

### CULMINATING EXPERIENCE - 3 CREDIT HOURS

PUBH 7996 | Master's Thesis

## WHAT YOU WILL LEARN

Students learn to apply computational, machine learning and data mining techniques to manage and analyze large, complex and multisectoral health datasets.

## CONNECT WITH OUR TEAM



### Click or Scan

To learn more about the application and admissions process at UofM SPH!