

ESTABLISHMENT OF A NEW PROGRAM FOR THE BACHELOR OF SCIENCE WITH A MAJOR IN STATISTICS

Recommendation

It is recommended that the Board of Governors establish a new degree program, the Bachelor of Science with major in Statistics in the Department of Mathematics and the College of Liberal Arts and Sciences, effective fall term, 2018.

Background

The purpose of the program is to provide rigorous training in statistics for students whose career goals require a high level of technical proficiency in this area. The program should greatly benefit students who pursue careers in research, business or government, or who enter graduate programs in statistics and quantitative fields. According to the Bureau of Labor Statistics, demand for statisticians will increase substantially during 2014-2024. Growth is expected to result from more widespread use of statistical analysis to make informed business and healthcare decisions. Undergraduate students at Wayne State have expressed interest in an undergraduate statistics program. Enrollment numbers of similar programs in the region suggest that there will be considerable student interest in this program because of the career opportunities that it provides. In the state of Michigan, the University of Michigan, Michigan State University, and Eastern Michigan University offer comparable degrees.

Program Description

Students gain knowledge in probability theory, statistical methods and modeling, computation, and statistical applications to prepare for a career as an applied statistician or go on to graduate school. The major program emphasizes critical thinking and problem solving skills in data analysis and empirical research. Core courses include research projects to enhance students' practical data analysis skills.

Admission Requirements

Admission requirements for the Bachelor of Science in Statistics are satisfied by the general requirements for undergraduate admission to the university.

Curriculum Requirements

The undergraduate program will be a 120-hour Bachelor of Science degree. Students will complete 45 credits of required courses within the major. The program's curriculum is divided into two parts: mathematics and statistics. The mathematics curriculum consists of a basic sequence of four courses in calculus and linear algebra and elective courses. The statistics curriculum consists of a basic course on probability and statistics, three core courses in statistics, one course on statistical computing, and elective courses. All required courses in both statistics and mathematics are offered on a regular basis. There is one required course on basic computer programming.

Graduation Requirements

Students must have a minimum GPA of 2.0 and a cumulative GPA of 2.0 or higher in all courses within the major. This program will adhere to all WSU and College of Liberal Arts and Sciences regulations governing undergraduate degrees.

Program Administration

The faculty and administrators within the Department of Mathematics will oversee the program. The current administrative and advising staff of the Department of Mathematics will support the program.

Budget and Resource Requirements

No new positions have been allocated for this program effort. The program is expected to increase student retention and enrollment in a highly cost-effective manner.

Accreditation

No accreditation review is required for the Bachelor of Science with a major in Statistics. The program will be reviewed as part of the Academic Program Review of the Department of Mathematics.

Approvals

The proposal was approved by the Chair and the faculty in the Department of Mathematics, the Faculty Council and Faculty Assembly of the College of Liberal Arts and Sciences, the Dean of the College of Liberal Arts and Sciences, and the Provost.