Mathematics with emphasis in Statistics  Bachelor of Science  (BS)  A20C

At least 120 hours are required for graduation, and students must earn a 2.0 overall GPA, a 2.0 WSU GPA, and a 2.0 GPA in the major. Students must also complete all courses required for Liberal Arts and Sciences General Education. French, German, or Russian is also recommended for students contemplating graduate work in mathematics or statistics.

REQUIREMENTS FOR MAJOR:  33 hours in Math courses, including:

Core courses taken by all Math Majors:  15 hours

415  Introduction to Advanced Mathematics (3)
511  Linear Algebra (3)
547  Advanced Calculus I (3)
551  Numerical Methods (3)
555  Differential Equations I (3)

Plus twelve hours from Group B which must include one of the following sequences:

571  Statistical Methods I (3)  and  572  Statistical Methods II (3)

or

771  Theory of Statistics I (3)  and  772  Theory of Statistics II (3)

The remaining 6 hours in Group B chosen from:

460  Elementary Probability & Mathematical Stats (3)
574  Elementary Survey Sampling (3)
576  Applied Nonparametric Statistical Methods (3)

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576  Applied Nonparametric Statistical Methods (3)

571  Statistical Methods I (3)  and  572  Statistical Methods II (3)

or

771  Theory of Statistics I (3)  and  772  Theory of Statistics II (3)

The remaining 6 hours in Group B chosen from:

460  Elementary Probability & Mathematical Stats (3)
574  Elementary Survey Sampling (3)
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One Course from Group C:  3 hours

530  Applied Combinatorics (3)
545  Integration Techniques & Applications (3)
548  Intro to Complex Variables (3)
553  Mathematical Models (3)
640  Advanced Calculus II (3)*
655  Differential Equations II (3)

One additional course chosen from group B or group C above:  3 hours

_____  ____________________ (3)

All bachelor’s degrees in mathematics require a higher-level algorithmic computer language.

Math 451 Computational Math using MATLAB (3) is strongly recommended. Students under this option may select statistics courses from other departments with the approval of the department of Mathematics, statistics and Physics.

_____  ____________________ (3)

For students contemplating Graduate School, MATH 513, MATH 547 and MATH 640 are highly recommended along with one or more of French, German or Russian.

Applied Learning:  Students in the BS in mathematics statistics emphasis program are required to complete an applied learning or research experience to graduate from the program. The requirement can be met by completing one of the following:  1) The student completes a thesis; 2) The students attends a conference and presents at least a poster; 3) The student performs outreach in the local school district; 4) The student does a presentation in a venue involving members of the community such as the Science Expo at the Keeper of the Plains, or through participation in Math Circle, or Pi Mu Epsilon, or Math Awareness; 5) The student carries out a research project followed by a seminar presentation.

REQUIREMENTS FOR A MINOR:  16 hours, a grade of D will not count in the minor

242  Calculus I (5)
243  Calculus II (5)
344  Calculus III (3)

400-level or above:  _____  ____________________ (3)  Must be approved by Math advisor

Dr. Thomas Delillo, Chair  Mr. Paul Scheuerman, Undergraduate Advisor
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