Mathematics with emphasis in Computer Science  
Bachelor of Science (BS)  

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:** 34-40 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)

Math 451 Computational Math using MATLAB (3)

Select an additional higher level programming language course

_____ ____________________ (3)

**Additional courses:** 10 hours
- CS 400 Data Structures (4)
- MATH 321 Discrete Structures I (3)
- MATH 322 Discrete Structures II (3)

**Select 4 courses** chosen from the following (at least 3 of the 4 must be in computer science): 12 hours
- MATH 553 Mathematical Models (3)
- MATH 657 Optimization Theory (3)
- MATH 751 Numerical Linear Algebra (3)
- CS 194 Introduction to Digital Design (4)
- CS 238 Assembly Language Programming (3)
- CS 410 Programming Paradigms (3)
- CS 510 Programming Language Concepts (3)
- CS 540 Operating Systems (3)
- CS 560 Design and Analysis of Algorithms (3)
- STAT 774 Statistical Computing I (3)

**Electives** – for students contemplating Graduate School, the following additional courses are highly recommended along with one or more of French, German or Russian:

- 513 Fundamental Concepts of Algebra (3)
- 547 Advanced Calculus I (3)
- 640 Advanced Calculus II (3)

**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

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