

UMaine Mathematics BS Worksheet

Student Name: _____

Advisor Name: _____

Students should use this worksheet in consultation with their advisor to develop an appropriate program of study to meet the requirements for a BS degree in Mathematics. BS students are not required to have a double major or a minor.

Required courses for the BS in mathematics are divided into:

- Required mathematics courses 30 Credits
- Core mathematics electives 12 Credits
- Upper level MAT or STS electives 9 Credits
- MAT 401 - Capstone in Mathematics 3 Credits

Courses outlined in the student's program below must be completed with a C or better.

Required Courses - 30 Credits	Credit Hours	Semester & Year Completed	Grade
MAT 126 Calculus I	4		
MAT 127 Calculus II	4		
MAT 228 Calculus III	4		
MAT 259 Differential Equations	3		
MAT 261 Introduction to Abstract Mathematics	3		
MAT 262 Linear Algebra	3		
MAT 425 Introduction to Real Analysis	3		
MAT 463 Introduction to Abstract Algebra	3		
STS 434 Probability Theory	3		

Capstone 3 Credits	MAT 401 Capstone in Mathematics	3		
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Core Electives: 12 Credits from the following list of courses. At the department chair's discretion, 500-level alternatives to these electives may be substituted.

Students *must* choose at least one of MAT 426 or MAT 464, so as to guarantee a year-long experience in either abstract algebra or real analysis.

- **MAT 426** Introduction to Real Analysis II 3 Credits
- **MAT 451** Dynamical Systems 3 Credits
- **MAT 452** Complex Analysis 3 Credits
- **MAT 453** Partial Differential Equations I 3 Credits
- **MAT 464** Introduction to Abstract Algebra II 3 Credits
- **MAT 465** Theory of Numbers 3 Credits
- **MAT 471** Differential Geometry 3 Credits
- **MAT 487** Numerical Analysis 3 Credits

Core Elective Courses - 12 Credits	Credit Hours	Semester & Year Completed	Grade

Electives: 9 Credits of upper level MAT or STS courses or other approved courses.

Students may not count more than six credits of elective STS courses toward the BS in Mathematics. Electives should be at the 300-level or above, with at least one at the 400-level or above.

Upper Level Electives - 9 Credits	Credit Hours	Semester & Year Completed	Grade