

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

<b>Capstone 3 Credits</b>	<b>MAT 401</b> Capstone in Mathematics	<b>3</b>		
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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