



# Degree Requirements Checklist

Bachelor of Science in Mathematics, Applied and Pure Mathematics Concentration

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**Core Class Requirement:** (11 courses, taken by all concentrations)

- MATH 140 - Calculus I
- MATH 141 - Calculus II
- MATH 242 - Multivariable and Vector Calculus
- MATH 260 - Linear Algebra
- MATH 265 - Discrete Structures in Mathematics
- MATH 270 - Applied Ordinary Differential Equations
- MATH 291 - Mathematical Software
- MATH 314 - Introduction to Proofs
- MATH 345 - Probability and Statistics
- PHYSIC113 - Fundamentals of Physics I
- CS110 - Introduction to Computer Programming

**Concentration Requirement:** (6 courses, taken for this concentration)

- MATH 358 - Complex Analysis with Applications
- MATH 360 - Abstract Algebra I
- MATH 361 - Abstract Algebra II
- MATH 450 - Real Analysis
- Mathematics 300+ Elective #1: MATH\_\_ \_\_ \_\_
- Mathematics 300+ Elective #2: MATH\_\_ \_\_ \_\_

**Science Requirement:** (4 courses)

(Please include course code and name. E.g., CHEM115 - Chemical Principles I)

- PHYSIC 114 - Fundamentals of Physics III
- Science Elective #1: \_\_\_\_\_
- Science Elective #2: \_\_\_\_\_
- Science Elective #3: \_\_\_\_\_

**Please see the reverse side of this sheet for additional requirements**

**General Requirements:**

- C Average Requirement:** Minimum of 2.0 GPA in the major  
(only includes courses taken at UMB)
- Pass/Fail Requirement:** No required courses taken as pass/fail
- Residency Requirement:** At least four (4) Mathematics courses at the 300-level or higher taken at UMB
- Capstone Requirement:** At least one (1) Mathematics course from MATH 420 through MATH 499 must be taken.