



Degree Requirements Checklist

Bachelor of Science in Mathematics, Computational Mathematics Concentration

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 425 - Numerical Analysis
- MATH 426 - Numerical Linear Algebra
- MATH 447 - Probability Models
- MATH 448 - Computational Statistics
- MATH 360 - Abstract Algebra **or** MATH 450 - Real Analysis
- Mathematics 300+ Elective: 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.