Applied Mathematics Specialization Checklist

(for students declaring the specialization on or after Fall 2018)

1. Required Core Courses:

___________MAT 127 Calculus A
___________MAT 128 Calculus B
___________MAT 229 Multivariable Calculus
___________MAT 200 Proof Writing Through Discrete Mathematics
___________MAT 205 Linear Algebra
___________MAT 275 Sophomore Seminar
___________MAT 310 Real Analysis
___________MAT 326 Differential Equations
___________STA 215 Statistical Inference
___________MAT 498 Capstone (must be the Applied Mathematics section of Capstone)

(Capstone Prerequisite: attendance to 4 seminars in junior/senior year)

2. MAT/STA Options

- At most two of the six courses may have an STA prefix.
- At most one of the six courses may have a non-MAT or STA prefix.
- Students can take at most one course unit of independent study, guided study, or independent research as one of the six course units (MAT/STA 39x/49x). However, this will not count as an applied math elective course

___________400 level course from the Applied Math Options list
___________300 or 400 level course from the Applied Math Options list
___________300 or 400 level course from the Applied Math Options list
___________Any course at the 300 or 400 level with MAT or STA prefix
___________Any course at the 300 or 400 level with MAT or STA prefix
___________Any course at the 300 or 400 level with MAT prefix, OR
          BIO 471/CSC 471, CHE 372, CSC 335, CSC 445, FIN 360, PHY 401
3. Choose one of the following options for the computer science correlate:

- CSC 220 Computer Science I AND CSC 230 Computer Science II
- CSC 250 Accelerated Computer Science I and II
- CSC 220 Computer Science I AND MAT 341 Computational Mathematics

Note: Students who use MAT 341 to satisfy the correlate requirement may NOT use MAT 341 as one of their MAT/STA course options in item 2.

(for any option: grade of C- or better in CSC200)

4. Choose one of the following options for the lab science correlate:

- BIO 201 Foundations of Biological Inquiry
- CHE 201 General Chemistry I
- PHY 201 General Physics I
- Any other lab course in Biology, Chemistry, or Physics numbered 200 or higher except PHY306 or PHY390 (with departmental approval).

Applied Math Options List:

MAT 303 Cryptography and Coding Theory
MAT 315 Topics in Linear Algebra
MAT 316 Probability
MAT 317 Linear Programming
MAT 330 Mathematical Biology
MAT 331 Numerical Analysis
MAT 341 Computational Mathematics
MAT 426 Partial Differential Equations
MAT 430 Seminar in Dynamical Systems
MAT 454 Seminar in Applied Mathematics
STA 318 Operations Research