Applied Mathematics Specialization Checklist

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

1. **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

   (*for any option*: grade of C- or better in CSC220)

2. **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

3. **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

   _____MAT275 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)

5. 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, PHY 401, CSC 335, or CSC 445

Applied Math Options List:

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 4xx Seminar in Dynamical Systems

MAT 454 Seminar in Applied Mathematics

STA 318 Operations Research