**Mathematics Major Checklist 2016-2017**

**Core Courses:**
- □ MAT 129 Calculus I
- □ MAT 229 Calculus II
- □ MAT 194 Mathematical Sciences Seminar
- □ MAT 234 Linear Algebra
- □ STA 250 Probability and Statistics I
- □ CSC 270 Mathematics Software Programming (or CSC 260)
- □ MAT 329 Calculus III
- □ MAT 489 Comprehensive Exam
- □ MAT 128 Calculus A
- □ MAT 227 Calculus B
- □ MAT 228 Calculus C

**Elective Courses:**

**Pure Mathematics Track:**
- □ MAT 302 Introduction to Higher Mathematics
- □ MAT 310 Elementary Theory of Numbers OR MAT 410 Abstract Algebra
- □ MAT 420 Real Variables I AND MAT 430 Complex Variables
- THREE 300-level or above courses, including at least TWO 400-level courses (excluding MAT/STA 490/491)

**Applied Mathematics Track:**
- □ CSC 270 Mathematics Software Programming OR (not chosen in core)
  - CSC 260 Object-Oriented Programming I
- □ MAT 325 Differential Equations
- □ TWO of: MAT 330 Classical Applied Analysis; MAT 360 Numerical Analysis; MAT 375 Applied Mathematical Models; MAT 430 Complex Variables; MAT 483 Cryptology
- THREE 300-level or above courses (excluding MAT/STA 490/491)

**General Mathematics Track:**
- □ MAT 302 Introduction to Higher Mathematics
- □ MAT 310 Elementary Theory of Numbers OR MAT 410 Abstract Algebra
- □ MAT 345 Introduction to Geometry
- □ STA 341 Statistics II
- □ ONE additional 300-level or above course

AND ONE OF THESE SEQUENCES OF COURSES:

- □ STA 340 Probability II AND one other 300-level or above course
- □ MAT 310 Elementary Theory of Numbers OR MAT 410 Abstract Algebra I AND ONE other 300-level or above course
- □ MAT 325 Differential Equations AND MAT 375 Applied Mathematical Models
- □ TWO 400-level courses (excluding MAT/STA 490/491) and

A grade of 'C-' or better is required in each course applied to the major. At least 9 semester hours towards the major must be taken at NKU.

**The Double Major in Mathematics and Statistics:** A double major in mathematics and statistics consists of satisfying the degree requirements of both majors with a minimum of 58 credit hours of courses applicable to either major.

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