# Mathematics Major Checklist

**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 INF 260)
- □ MAT 329 Multivariable Calculus
- □ MAT 497 Mathematical Sciences Capstone

**Elected Courses:**

- □ MAT 128 Calculus A
- □ MAT 227 Calculus B
- □ MAT 228 Calculus C

**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
  - OR
  - MAT 430 Complex Variables
- □ ONE 300 Level or above MAT/STA Course
- □ TWO 400 Level MAT/STA Courses

**Applied Mathematics Track:**

- □ MAT 325 Differential Equations
- □ TWO of:
  - MAT 330 Classical Applied Analysis
  - MAT 360 Numerical Analysis
  - MAT 375 Applied Mathematical Models
- □ THREE 300 level or above MAT/STA Courses

**General Mathematics Track:**

- □ MAT 302 Introduction to Higher Mathematics
- □ MAT 345 Introduction to Geometry
- □ MAT 310 Elementary Theory of Numbers
  - OR
  - MAT 410 Abstract Algebra
- □ STA 341 Statistics II
- □ STA 340 Probability II
  - AND
  - one other 300-level or above MAT/STA Course
- □ MAT 325 Differential Equations
  - AND
  - MAT 330 Classical Applied Analysis
- □ MAT 310 Elementary Theory of Numbers
  - OR
  - MAT 410 Abstract Algebra
  - AND
  - one other 300-level or above MAT/STA course
- □ Two 400-level MAT/STA courses

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.