Bachelor of Arts - Dual Major in Mathematics

### Wright State Core – 42 hours

**Element 1 Communications**
- ENG 1100 Academic Writing and Reading
- ENG 2100 Research and Argument

**Element 2 Mathematics**
- MTH 2300 Calculus I

**Element 3 Global Traditions**
- Choose one (1) interdisciplinary course:
  - AFS 2000 (IW, MC)
  - CST 2430 (IW, MC)
  - RST 2620 (IW, MC)
  - ATH 2500
  - CST 2510 (IW, MC)
  - RST 2710 (IW, MC)
  - CS 1000
  - EC 2100
  - RST 2810 (IW, MC)
  - CST 2210 (IW, MC)
  - EC 2500 (IW, MC)
  - RST 2910 (IW, MC)
  - CST 2310 (IW, MC)
  - EC 2900 (IW, MC)
  - RST 2920 (IW, MC)
  - CST 2320 (IW, MC)
  - ED 2100 (MC)
  - URS 2000 (IW, MC)
  - CST 2410 (MC)
  - ML 2030
  - CST 2420 (IW, MC)
  - RST 2610 (IW, MC)

Choose one (1) History course:
- CLS 1500
- HST 1100
- HST 1200

**Element 4 Arts/Humanities**
- Choose one (1) course:
  - ART 2140
  - ENG 2050 (IW, MC)
  - PHL 2040 (IW)
  - CLS 2040 (IW)
  - MP 1310
  - PHL 2100
  - CST 2310 (IW)
  - MUS 1210
  - REL 2040 (IW)
  - CST 2420 (IW)
  - MUS 2140
  - TH 2140
  - ENG 2040 (IW)
  - MUS 2900 (IW, MC)
  - UH 2010 (IW)

**Element 5 Social Science**
- Choose two (2) courses from different disciplines
  - ATH 2200
  - EC 2500 (IW, MC)
  - SOC 2000 (IW)
  - EC 2000 (IW)
  - EC 2900 (IW, MC)
  - SW 2720 (IW, MC)
  - EC 2040
  - FIN 2050
  - UH 2020 (IW)
  - EC 2050
  - PLS 2000
  - WMS 2000 (IW, MC)
  - EC 2100
  - PSY 1010

**Element 6 Natural Science**
- Choose two (2) courses:
  - PHY 2400/2400L
  - PHY 2410/2410L

**Additional Core Courses**
- MTH 2310 Calculus II (4 hours)
- One additional approved Wright State Core course from any of the Elements

**Multicultural Competence**
- Two Multicultural Competence (MC) courses from the Wright State Core, Study Abroad, or Service Learning courses

**Writing Across the Curriculum**
- Two Integrated Writing (IW) courses from the Wright State Core.

### Departmental Requirements – 22 hours

**Required Core Courses (3 hours)**
- MTH 2530 Elementary Linear Algebra (3 hours)

**Electives (19 hours)**
- Choose two (2) of the following:
  - MTH 2320 Calculus III (4 hours)
  - MTH 2330 Differential Equations (3 hours)
  - MTH 2350 Differential Equations w/ Matrix Algebra (4 hours)
  - MTH 2800 Writing Mathematical Proofs (3 hours)

Choose two (2) of the following:
- MTH 4310 Real Variables I (3 hours)
- MTH 4320 Real Variables II (3 hours)
- MTH 4510 Modern Algebra I (3 hours)
- MTH 4520 Modern Algebra II (3 hours)
- MTH 4570 Combinatorics & Graph Theory (4 hours)

Choose two (2) additional department approved electives from the list below.

**Related Course Requirements – 4 hours**
- CS 1160 or CS 1180 or CEG 2170 (4 hours)

**General Electives – 54 hours**

Students must complete a major program in another department.

**Department Approved Elective Courses**
- MTH 3060 Mathematical Modeling (3 hours)
- MTH 3260 Numerical Methods (3 hours)
- MTH 3320 Complex Variables (3 hours)
- MTH 3330 Partial Differential Equations (3 hours)
- MTH 4070 Optimization Techniques (3 hours)
- MTH 4150 Introduction to Scientific Computation (3 hours)
- MTH 4240 Coding Theory (3 hours)
- MTH 4260 Matrix Computations (3 hours)
- MTH 4290 Cryptography and Data Security (3 hours)
- MTH 4310 Real Variables I (3 hours)
- MTH 4320 Real Variables II (3 hours)
- MTH 4510 Modern Algebra I (3 hours)
- MTH 4520 Modern Algebra II (3 hours)
- MTH 4550 Advanced Linear Algebra (3 hours)
- MTH 4570 Combinatorics & Graph Theory (4 hours)
- MTH 4710 Geometry (3 hours)
- MTH 4810 Applied Mathematics I (3 hours)
- MTH 4820 Applied Mathematics II (3 hours)
- MTH 4920 Undergraduate Mathematics Seminar (3 hours)
- STT 3600 Applied Statistics I (3 hours)
- STT 4610 Theory of Statistics I (4 hours)
- STT 4620 Theory of Statistics II (4 hours)
- STT 4660 Statistical Methods I (4 hours)
- STT 4670 Statistical Methods II (4 hours)
- STT 3610 Applied Statistics II (4 hours)