# Bachelor of Science – Dual Major in Mathematics Education

## 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 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 History course:
- CLS 1500  HST 1100  HST 1200

**Element 4 Arts/Humanities**
Choose one course:
- ART 2140  ED 2650  ED 2750
- 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**
- PHY 2400/2400L
- PHY 2410/2410L

**Additional Core Courses**
- MTH 2310 Calculus II
- 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 (13 hours)**
- MTH 2320 Calculus III (4 hours)
- MTH 2530 Elementary Linear Algebra (3 hours)
- MTH 2800 Writing Mathematical Proofs (3 hours)
- MTH 4510 Modern Algebra I (3 hours)

**Electives (9 – 12 hours)**
Choose one (1) of the following courses:
- MTH 4310 Real Variables I (3 hours)
- MTH 4520 Modern Algebra II (3 hours)
- MTH 4570 Combinatorics & Graph Theory (4 hours)
- MTH 4810 Applied Mathematics I (4 hours)
- STT Applied Statistics I (3 hours)

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

**General Electives – 56 hours**
Student 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 4320 Real Variables II (3 hours)
- MTH 4550 Advanced Linear Algebra (3 hours)
- MTH 4820 Applied Mathematics II (3hours)
- MTH 4920 Undergraduate Mathematics Seminar (3hours)
- STT 3610 Applied Statistics II (3hours)
- STT 4610 Theory of Statistics I (4hours)
- STT 4620 Theory of Statistics II (4hours)
- STT 4660 Statistical Methods I (4hours)
- STT 4670 Statistical Methods II (4hours)

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Department of Mathematics and Statistics