Bachelor of Science in Statistics – Actuarial Science Concentration

<table>
<thead>
<tr>
<th>Wright State Core – 40 hours</th>
<th>Departmental Requirements – 41 hours</th>
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<tr>
<td><strong>Element 1 Communications</strong></td>
<td><strong>Required Core Courses (32 hours)</strong></td>
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<tr>
<td>ENG 1100 Academic Writing and Reading</td>
<td>MTH 2320 Calculus III (4 hours)</td>
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<tr>
<td>ENG 2100 Research and Argument</td>
<td>MTH 2530 Elementary Linear Algebra (3 hours)</td>
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**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, C)
  - CST 2410 (MC)
  - ML 2030
  - CST 2420 (IW, MC)

**Element 4 Arts/Humanities**
- Choose one 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**
- EC 2040 Principles of Microeconomics
- Choose one course from the list below:
  - ATH 2200
  - SOC 2000 (IW)
  - FIN 2050
  - SW 2720 (IW, MC)
  - PLS 2000
  - UH 2020 (IW)
  - PSY 1010
  - WMS 2000 (IW, MC)

**Element 6 Natural Science**
- Choose two courses from the list below:
  - ATH 2100
  - CHM 1060
  - PHY 1060/1060L
  - BIO 1050
  - CHM 1210/1210L
  - PHY 2400/2400L
  - BIO 1060
  - EES 1060
  - PHY 2410/2410L
  - BIO 1070
  - EES 1070
  - SM 1010 (IW)
  - BIO 1120
  - HPR 2500
  - BIO 1150
  - PHY 1050/1050L

**Additional Core Courses**
- MTH 2310 Calculus II
- ACC 2010 Accounting Principles I

**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

**Electives (9 hours)**
- From department approved electives (See list below)

**Related Course Requirements – 16 hours**
- CS 1160 or CS 1180 or CEG 2170 (4 hours)
- EC 2050 Principles of Macroeconomics
- FIN 2210 Financial Management I
- FIN 3110 Financial Management II

Once course from:
- ACC 2020 Accounting Principles II
- EC 4100 Mathematical Models for Economics
- FIN 3260 Risk and Insurance
- FIN 4130 Financial Derivatives

**General Elective - 23 hours**
- Choose from the Wright State University Undergraduate Catalog

**Department Approved Elective Courses**
- STT 4210 Sampling Design (3 credits)
- STT 4240 Quality Control and Improvement (3 credits)
- STT 4260 Survival Analysis (3 credits)
- STT 4310 Statistical Methods for Clinical Trials (3 credits)
- STT 4620 Theory of Statistics II (4 credits)
- STT 4640 Computational Statistics (3 credits)
- MTH 2800 Writing Mathematical Proofs (3 credits)
- MTH 3060 Mathematical Modeling (3 credits)
- MTH 3260 Numerical Methods (3 hours)
- MTH 4070 Optimization Techniques (3 credits)
- MTH 4150 Scientific Computation (3 credits)
- MTH 4310 Real Variables I (3 credits)
- MTH 4320 Real Variable II (3 credits)
- MTH 4550 Advanced Linear Algebra (3 credits)
- MTH 4810 Methods of Applied Mathematics I (3 credits)
- MTH 4820 Methods of Applied Mathematics II (3 credits)

Department of Mathematics and Statistics