

Bachelor of Arts in Mathematics: Applied Statistics Specialization Suggested Plan

For students entering in an **ODD** year:

<p><u>Fall of 1st Year (odd) (15 hours)</u></p> <p>MA 151 – Calculus I (5) WU 101 – Washburn Experience (3) MA 140 - Statistics (pre-req for MA340/341) (3) CM 111 – Structured Programming (4)</p>	<p><u>Spring of 1st Year (even) (14 hours)</u></p> <p>MA 152 – Calculus II (5) EN 101 – Freshman Composition (3) MA 340 – ANOVA/Design of Experiments (3) CM 245 – Contemporary Programming (3)</p>
<p><u>Fall of 2nd Year (even) (12-16 hours)</u></p> <p>MA 253 – Calculus III (3) MA 301 – Linear Algebra (3) MA 206 – Discrete Structures (3) Social Sciences General Education (3) (SP 101 Beginning Spanish or FL 101) (4)</p>	<p><u>Spring of 2nd Year (odd) (16 hours)</u></p> <p>MA 341 – Nonparametric Test/QC (3) CM 307 – Data Structures/Alg Analysis (3) Natural Science General Education (3) Humanities Gen Ed AR/TH/MU (3) SP 102 Beginning Spanish of FL 102 (4)</p>
<p><u>Fall of 3rd Year (odd) (18 hours)</u></p> <p>MA 344 – Math Statistics I (3) MA 342 – Statistical Computing (3) EN 300 – Advanced Composition (3) Humanities General Education (3) Social Sciences General Education (3) Natural Science General Education (3)</p>	<p><u>Spring of 3rd Year (even) (15 hours)</u></p> <p>MA 345 – Math Stat II (3) MA 347 – Stochastic Processes (3) Humanities General Education (3) Natural Science General Education (3) Social Sciences General Education (3)</p>
<p><u>Fall of 4th Year (even) (15 hours)</u></p> <p>MA 346 – Regression (3) CM 332 – Data Mining (3) Social Sciences General Education (3) Humanities General Education (3) 300 level Social Sciences Gen Ed (3)</p>	<p><u>Spring of 4th Year (odd) (15 hours)</u></p> <p>MA 348 – Time Series (3) CM 336 – Database Mgmt Systems (3) Natural Science General Education (3) 300 level Humanities Gen Ed (3) Social Sciences General Education (3)</p>

For students entering in an **EVEN** year:

<p><u>Fall of 1st Year (even) (15 hours)</u></p> <p>MA 151 - Calc and Anal Geometry I (5) MA 140 – Statistics (pre-req for MA340/341) (3) WU 101 – Washburn Experience (3) CM 111 – Structured Programming (4)</p>	<p><u>Spring of 1st Year (odd) (14 hours)</u></p> <p>MA 152 - Calc and Anal Geometry II (5) EN 101 – Freshman Comp (3) MA 341 – Nonparametric Test/QC (3) CM 245 – Contemporary Programming (3)</p>
<p><u>Fall of 2nd Year (odd) (12-16 hours)</u></p> <p>MA 253 - Calc and Anal Geometry III (3) MA 342 – Statistical Computing (3) MA 206 – Discrete Structures (3) Social Sciences General Education (3) (SP 101 Beginning Spanish or FL 101) (4)</p>	<p><u>Spring of 2nd Year (even) (16 hours)</u></p> <p>MA 340 – ANOVA/Design of Experiments (3) CM 307 – Data Structures/Alg Analysis (3) Natural Science General Education (3) Humanities Gen Ed AR/TH/MU (3) SP 102 Beginning Spanish of FL 102 (4)</p>
<p><u>Fall of 3rd Year (even) (18 hours)</u></p> <p>MA 346 – Regression (3) EN 300 – Advanced Composition (3) Humanities General Education (3) Social Sciences General Education (3) Social Sciences General Education (3) Natural Science General Education (3)</p>	<p><u>Spring of 3rd Year (odd) (15 hours)</u></p> <p>MA 348 – Time Series (3) CM 336 – Database Mgmt Systems (3) Humanities General Education (3) Natural Science General Education (3) Social Sciences General Education (3)</p>
<p><u>Fall of 4th Year (odd) (15 hours)</u></p> <p>MA 301 – Linear Algebra (3) MA 344 – Math Statistics I (3) CM 332 – Data Mining (3) Humanities General Education (3) 300 level Social Sciences Gen Ed (3)</p>	<p><u>Spring of 4th Year (even) (15 hours)</u></p> <p>MA 345 – Math Stat II (3) MA 347 – Stochastic Processes (3) Natural Science General Education (3) 300 level Humanities Gen Ed (3) Social Sciences General Education (3)</p>

Course rotation schedule:

<i>Every Fall</i>	<i>Odd Fall</i>	<i>Even Spring</i>	<i>Even Fall</i>	<i>Odd Spring</i>
MA 301	(FA21 only)	MA 340	MA 346	MA 341 (Start SP 23)
	MA 342	MA 345	MA 384	MA 348
	MA 344	MA 347		MA 385

List of Required Courses:

- MA 151 - Calculus and Analytic Geometry I
 - Prerequisites: MA 117 – Trigonometry, OR Four years of high school mathematics, including trigonometry; or, MA 123 Precalculus; or, a math ACT score of 28 or higher
- MA 152 - Calculus and Analytic Geometry II
- MA 253 - Calculus and Analytic Geometry III
- MA 301 - Linear Algebra
 - Prerequisite: MA253 - Calculus and Analytic Geometry III
- MA 340 (3) ANOVA/Design of Experiments
 - Prerequisite: MA 140 Statistics
- MA 341 (3) Nonparametric Tests/QC
 - Prerequisite: MA 140 Statistics
- MA 342 (3) Statistical Computing
 - Prerequisite: MA 140 Statistics
- MA 344 - Mathematical Statistics I
 - Prerequisites: MA 253 - Calculus and Analytic Geometry III, or concurrent
 - MA 340 – ANOVA/Design of Experiments **or** MA 341 – Nonparametrics/Quality Control
- MA 345 - Mathematical Statistics II
 - Prerequisite: MA 344 - Mathematical Statistics I
- MA 346 – Regression Analysis
 - Prerequisite: MA140 – Statistics
- MA 347 – Stochastic Processes
 - Prerequisite: MA 344 - Mathematical Statistics I
- MA 348 – Time Series Analysis
 - Prerequisites: MA 344 - Mathematical Statistics I
 - MA 346 – Regression Analysis
- CM 111 (4) – Structured Programming
 - Prerequisites: MA 116 – or higher
- CM 245 (3) – Contemporary Programming Methods
 - Prerequisites: CM 111
- CM 307 (3) – Data Structures and Algorithmic Analysis
 - Prerequisites: MA 206 and CM 245
- CM 332 (3) – Data Mining
 - Prerequisites: CM 307 and MA 140
- CM 336 (3) – Database Management Systems
 - Prerequisites: CM 307 or CM 335

Other requirements:

- WU 101, EN 101, EN 300
- 15 hours of **Social Sciences Gen Ed** courses
- 15 hours of **Humanities Gen Ed** courses with 3 hours in **AR/MU/TH**
- 12 hours of **Natural Sciences Gen Ed** courses
- SP 102 or FL 102
- 45 hours of 300 level courses