Bachelor of Arts in Mathematics: Actuarial Science Specialization Suggested Plan

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

Fall of 1st Year (odd) (14-18 hours)		**Spring of 1st Year (even) (15 hours)**	
MA 151 – Calculus I	(5)	MA 152 – Calculus II	(5)
WU 101 – Washburn Experience	(3)	EN 101 – Freshman Composition	(3)
MA 140 - Statistics (pre-req for MA340/341)	(3)	MA 340 – ANOVA/Design of Experiments	(3)
Natural Science General Education	(3)	(or take MA 341 in Spr of 2nd yr, below)	
(SP 101 Beginning Spanish or FL 101)	(4)	*(SP 102 Beginning Spanish or FL 102)*	(4)
		(Hum GE AR/MU/TH if not taking MA340)	(3)
Fall of 2nd Year (even) (15 hours)		**Spring of 2nd Year (odd)) (15 hours)**	
MA 253 – Calculus III	(3)	MA 341 - Nonparametric Tests/QC	(3)
AC 224 – Financial Accounting	(3)	(or take MA 340 in Spr of 1st yr, above)	
EC 200 – Principles of Microeconomics	(3)	AC 225 – Managerial Accounting	(3)
BU 250 – Management Information	(3)	EC 201 – Principles of Macroeconomics	(3)
Social Sciences General Education	(3)	Humanities General Education	(3)
		Natural Science General Education	(3)
		(Hum GE AR/MU/TH if not taking MA341)	(3)
Fall of 3rd Year (odd) (15 hours)		**Spring of 3rd Year (even) (15 hours)**	
MA 301 – Linear Algebra	(3)	MA 345 – Math Stat II	(3)
MA 344 – Math Statistics I*	(3)	MA 347 – Stochastic Processes	(3)
BU 374 – Principles of Risk and Insurance	(3)	BU 381 – Business Finance	(3)
EN 300 – Advanced Composition	(3)	Social Sciences General Education	(3)
Social Sciences General Education	(3)	Humanities General Education	(3)
Fall of 4th Year (even) (15 hours)		**Spring of 4th Year (odd) (12-16)**	
MA 384 – Theory of Interest**	(3)	MA 385 – Actuarial Math	(3)
MA 346 – Regression	(3)	MA 348 – Time Series	(3)
BU 483 - Investments	(3)	Natural Science General Education	(3)
Natural Science General Education	(3)	Humanities General Education	(3)
Humanities General Education	(3)	Electives/300 level if needed	(0-4)

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

Fall of 1st Year (even) (14 to 18 hours)		**Spring of 1st Year (odd) (15 hours)**	
MA 151 - Calc and Anal Geometry I	(5)	MA 152 - Calc and Anal Geometry II	(5)
MA 140 – Statistics (pre-req for MA340/341)	(3)	MA 341 - Nonparametric Tests/QC	(3)
WU 101 – Washburn Experience	(3)	EN 101 – Freshman Comp	(3)
Social Sciences General Education	(3)	*(SP 102 Beginning Spanish or FL 102)*	(4)
(SP 101 Beginning Spanish or FL 101)	(4)		
Fall of 2nd Year (odd) (15 hours)		**Spring of 2nd Year (even) (15 hours)**	
MA 253 - Calc and Anal Geometry III	(3)	AC 225 – Managerial Accounting	(3)
MA 344 – Math Statistics I*	(3)	BU 250 OR BU 248	(3)
AC 224 – Financial Accounting	(3)	MA 345 – Math Stat II	(3)
BU 374 – Principles of Risk and Insurance	(3)	Natural Science General Education	(3)
Humanities General Education	(3)	Humanities Gen Ed AR/MU/TH	(3)
Fall of 3rd Year (even) (15 hours)		**Spring of 3rd Year (odd) (15 hours)**	
MA 384 – Theory of Interest**	(3)	MA 385 – Actuarial Math	(3)
MA 346 – Regression	(3)	MA 348 – Time Series	(3)
EC 200 – Principles of Microeconomics	(3)	BU 381 – Business Finance	(3)
EN 300 – Advanced Composition	(3)	EC 201 – Principles of Macroeconomics	(3)
Humanities General Education	(3)	Natural Science General Education	(3)
Fall of 4th Year (odd) (15 hours)		**Spring of 4th Year (even) (12-16 hours)**	
MA 301 – Linear Algebra	(3)	MA 347 – Stochastic Processes	(3)
BU 483 – Investments	(3)	Social Sciences General Education	(3)
Natural Science General Education	(3)	Natural Science General Education	(3)
Humanities General Education	(3)	Electives/300 level if needed	(0-4)
Social Sciences General Education	(3)		

* It is recommended that students sit for the SOA Exam P during winter break, following MA-344
** It is recommended that students sit for the SOA Exam FM during winter break, following MA-384

Course rotation schedule:

Every Fall	Odd Fall	Even Spring	Even Fall	Odd Spring
MA 301	MA 341 (FA 21 only)	MA 340	MA 346	MA 341 (start SP 23)
	MA 344	MA 345	MA 384	MA 348
		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 – ANOVA/Design of Experiments, **OR** MA 341 – Nonparametrics/Quality Control
    - 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: MA 343 - Applied Statistics, **OR** 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
- MA 384 - Theory of Interest
    - Prerequisite: MA151 - Calculus and Analytic Geometry I
- MA 385 - Actuarial Mathematics
    - Prerequisites: MA 344 - Mathematical Statistics I
    - MA 384 - Theory of Interest
- AC 224 - Financial Accounting
    - Prerequisites: EN 101 – English Composition I, MA 112 or higher
- AC 225 - Managerial Accounting
    - Prerequisites: AC 224 - Financial Accounting, BU 250 or BU 248
- EC 200- Principles of Microeconomics
    - Prerequisite: MA 112 or higher
- EC 201- Principles of Macroeconomics
    - Prerequisites: MA 112 or higher, EC 200
- BU 374 - Principles of Risk and Insurance
- BU 381 - Business Finance
    - Prerequisites: AC 224, AC 225, BU 250, MA 346 or MA 344, MA 151
- BU 483 - Investments
    - Prerequisite: BU 381

Other requirements:
- Required FL102 of a Modern Language course (**suggested plan has SP 102**)
- WU 101, EN 101, EN 300
- 15 hours of Social Sciences Gen Ed courses (EC 200 and EC 201 count toward this)
- 15 hours of Humanities Gen Ed courses with 3 hours in AR/MU/TH
- 12 hours of Natural Sciences Gen Ed courses
- 45 hours of 300 level courses (9 more 300 level hours beyond degree requirements)