

Actuarial Science--Predictive Analytics Option

2017-2018 Calendar

	Course	Year/ Term	Topic	Pre-reqs	Offering	SoA/CAS exams	CIA Accreditation	Comments
1	CS 115 or CS 135 or CS 145 *	1A	CS Core I		FWS	<i>Changes are coming in 2018. See our website for updated information. We will post it as we receive it.</i>	<i>Updates are coming in 2018. See our website for updated information. We will post it as we receive it.</i>	* a few other options - see first year advisor if you have issues
2	MATH 135/145	1A	Algebra		FWS			
3	MATH 137/147	1A	Calculus I		FWS			
4	Math English course	1A	Course from English Language Competency requirements list		FWS			
5	MTHEL 131	1	Intro to Actuarial Practice		FWS			≥60% Required for admission to ACTSC
6	CS 116 or CS 136 or CS 146 *	1B	CS Core II	CS Core I	FWS			* a few other options - see first year advisor if you have issues
7	MATH 136/146	1B	Linear Algebra 1	≥60% in M135	FWS			
8	MATH 138/148	1B	Calculus II	≥60% in M137	FWS			
9	ECON 101	1	Intro microeconomics		FWS	VEE-E		
10	ECON 102	1/2	Intro macroeconomics		FWS	VEE-E		
11	AFM 101	1	Core Concepts of accounting information		FWS			
12	MATH 235/245	2A	Linear Algebra 2	≥60% in M136, Coreq M138	FWS			
13	MATH 237/347	2A	Calculus 3	≥60% in M136, ≥60% in M138	FWS			
14	STAT 230/240	2A	Probability	60% in M135, ≥60% in M137, Coreq M138	FWS			
15	ACTSC 231	2A	Introductory Financial Mathematics	M137, level 2A, Coreq S230	FWS			
16	AMATH 250	2	Intro to diff equations	M138	FWS			
17	STAT 231/241	2B	Statistics	M138, S230	FWS			
18	ACTSC 232	2B	Life Contingencies 1	≥60% in A232, >60% in MTHEL 131, S.230	FWS			
19	ACTSC 371	2/3	Introduction to Investments	Coreq S231	FWS			
20	ACTSC 331	3	Life Contingencies 2	≥60% in AS232	FWS			
21	STAT 330	3	Stat theory and methods	M237, ≥60% in S230, S231	FWS			
22	STAT 331	3	Applied linear models	M235, ≥60% in S231	FWS			
23	STAT 333	3	Applied probability	≥60% in S230, level 3A	FWS			
24	ENGL 378/MTHEL 300	3B/4	Professional Communications in Statistics and Actuarial Science	(AS331 or S331), ≥70% in EMLS 101R, 102R, EMLS/ENGL 129R, ENGL 109, SPCOM 100, 223	FWS			
25	CS 330	3/4	Management Informaiton Systems	CS Core II, M136, M237, S231	FW			
26	STAT 341	3/4	Computational Statistics and Data Analysis	≥60% in S230, M237, S231	FW			STAT 340 is NOT accepted
27	ACTSC 431	4	Loss models 1	S330, S333	FS			
28	ACTSC 446	4	Mathematics of Financial Markets	(AS231, 371), (S333 or 334)	FW			
29	STAT 431	4	Generalized linear models	S330, (S331 or S371)	FWS			
30	STAT 441	4	Statistical Learning - Classificaiton	S341	FW			
31	STAT 443	3/4	Forecasting	S331	FWS			
32	One of							
	ACTSC 433	4	Survival analysis	AS331, S330	W			
	STAT 437	4	Analysis of Longitudinal Data in Health Research	S431	W			
33	One of							
	STAT 440	4	Computational Inference	S341	WS			
	STAT 442	4	Date Visualization	S231	FW			
+ 3 Additional 400 level ACTSC courses -- If ACTSC 433 is used above as #32, then only 2 Additional:								
	ACTSC 432	4	Loss models 2	S330, S333	FS			
	ACTSC 433	4	Survival analysis	AS331, S330	W			
	ACTSC 445	4	Quantitative Enterprise Risk Management	(AS231, 371), (S330 and 333 or 334)	FS			
	ACTSC 453	4	Pensions	AS331	W (odd years)			
	ACTSC 455	4	Advanced Life Insurance Practice	≥60% in AS331	under review			
	ACTSC 462	4	Intro to Property & Casualty Pricing	(AFM 272 or AS 231)	under review			
	ACTSC 463	4	Intro to Property & Casualty Loss Reserving	(AFM 272 or AS 231), (S331 or 371 or 373)	under review			
+ 4 Additional non-math courses								
+ If ACTSC 433 is used as course #32, then 1 additional course is required to meet the 40 courses.								
Students who want a double major with Statistics must have STAT 332 and a total of 3 STAT 4XX courses								
Total 40 courses								

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Occasionally mistakes are found on these sheets. Make sure you have the most up to date version, and know that a mistake on this sheet, will not allow you to graduate missing a required course. The undergraduate calendar is the official list of required courses for any program and these sheets are created to help things be easier for you.