

Actuarial Science--Finance Option Honours Plan

2014-2015 Calendar

	Course	Year/ Term	Topic	Pre-reqs	Offering	SoA/CAS exams	CIA Accreditation as of September 2014	Comments
1	CS 115 or CS 135 or CS 145 *	1A	CS Core I		FWS			* 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 1		FWS			
4	Math English course**	1A	English Language Proficiency course		FWS			Mark of >75% is needed for ACTSC 232 pre-req. If you pass ELPE instead, replace this with any non-math course
5	MTHEL 131	1	Intro to Actuarial Practice		FWS			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	M135	FWS			
8	MATH 138/148	1B	Calculus 2	M137	FWS			
9	ENGL 119 or substitute	1B	Communications in Math & CS	ELPE or English Language Proficiency course	FWS			If taken before Winter 2015, ENGL 119 can be used for ACTSC 232 pre-req. List of substitutes available online
10	ECON 101	1/2	Intro microeconomics		FWS	VEE-E		
11	ECON 102	1/2	Intro macroeconomics		FWS	VEE-E		
12	AFM 101	1/2	Core Concepts of accounting information		FWS			
13	AFM 102	1/2	Introduction to managerial accounting	AFM101	WS			
14	MATH 235/245	2A	Linear Algebra 2	M136	FWS			
15	MATH 237/247	2A	Calculus 3	M136,138	FWS			
16	STAT 230/240	2A	Probability	M137	FWS	P		
17	ACTSC 231	2A	Mathematics of Finance	M137, level 2A, Coreq S230	FWS	FM	FM - 80%	
18	ONE OF:							
	a) MATH 239/249	2B	Intro combinatorics	M135,136	FWS			
	b) AMATH 231		Calculus 4	M237	FWS			
	c) AMATH 250		Intro to diff equations	M138	FWS			
19	STAT 231/241	2B	Statistics	M138,S230	FWS			
20	ACTSC 232	2B	Introduction to Actuarial Mathematics	AS231,S230, ENGL 119 or Good/ Excellent on ELPE (see note below **)	FWS	MLC	MLC - 75%	
21	ACTSC 371	2/3	Introduction to Investments	Coreq S231	FWS	FM	FM - 80%	
22	ACTSC 372	3	Corporate Finance	AS371, M237	FWS	VEE-CF		
23	ACTSC 331	3	Life Contingencies 1	≥60% in AS232	FWS	MLC	MLC - 75%, 3L - 75%	
24	STAT 330	3	Stat theory and methods	M237, ≥60% in S230,S231	FWS			
25	STAT 331	3	Applied linear models	M235, ≥60% in S231	FWS	VEE-AS		
26	STAT 333	3	Applied probability	≥60% in S230, level 3A	FWS			
27	STAT 340	3/4	Simulation	S231,CS Core II	WS	C		
28	ACTSC 431	4	Loss models 1	S330,S333	FS	* C	C - 75%	* most exam C material from these courses
29	ACTSC 445	4	Quantitative Risk Management	(AS231,371), (S330 and 333 or 334)	FS	FSA(CFE, QRM)		
30	ACTSC 446	4	Math models in finance	(AS231,371),(S333 or 334)	FW	MFE	MFE - 75%	
+	4 Additional 300-400 level ACTSC courses (or AFM 472 or STAT 431/433 or STAT 443); currently available courses include:							
	ACTSC 432	4	Loss models 2	S330,S333	FS	* C	C - 75%	* most exam C material from these courses
	ACTSC 433	4	Survival analysis	AS331,S330	W	C	C - 75%	
	ACTSC 453	4	Pensions	AS331	W (odd years)	FAP/FSA(R)		
	ACTSC 455	4	Advanced Life Insurance Practice	≥60% in AS331	W	MLC	MLC - 75%	
	ACTSC 462	4	Intro to Property & Casualty Pricing	(AFM 272 or AS 231)	W	CAS - Exam 5		
	ACTSC 463	4	Intro to Property & Casualty Loss Reserving	(AFM 272 or AS 231), (S331 or 371 or 373)	F	CAS - Exam 6		
	ACTSC 471/AFM 476	4	Advanced corporate finance	AS372	F	FSA(F)		
	AFM 472/AFM 424	3/4	Investments	AS372	FW	FSA(F,V)		
	STAT 443	3/4	Forecasting	S331	FWS	VEE-AS		
	STAT 433 or STAT 431	4	Stochastic processes or Generalized linear models	S333 S330,(S331 or S371)	F FWS			
+	6 Additional courses, of which AT LEAST 3 must be outside the math faculty (2 if AFM 472 is taken)							
	Students who want a double major with Statistics must have STAT 332 and a total of 3 STAT 4xx courses							
	Total 40 courses							

** ENGL 119 is listed as required in the 2014 calendar, however, it will only count as a pre-req for ACTSC 232 if taken in Winter 2015 or earlier. Students are recommended to check the department website for the alternative pre-req currently being developed for 2015, which will most likely be a mark of >60% in MTHEL 131. We will also accept a mark of >75% in the English Language Proficiency Course, for Fall 2014 incoming students only.