

Actuarial Science Joint Honours Plan

2026-2027 calendar

These sheets were created to help you plan your courses, not to provide an official list of your graduation requirements. It is ultimately your responsibility to ensure you meet your graduation requirements which are officially listed in the undergraduate calendar. For example, a mistake on this sheet cannot be used as a reason to graduate without meeting official requirements. See: <https://uwaterloo.ca/academic-calendar/undergraduate-studies/catalog#/programs>

	Course	Year/ Term	Topic	Pre-reqs	Offering	Comments
1	CS 115/135/136	1A	CS Core I		FWS	
2	MATH 135/145	1A	Algebra		FWS	
3	MATH 137/147	1A	Calculus I		FWS	
4	MTHEL 131	1A/B	Intro to Actuarial Practice		FW	≥60% required for admission to ACTSC
5	CS 116/136/146	1B	CS Core II	CS Core I	FWS	
6	MATH 136/146	1B	Linear Algebra 1	M135	FWS	
7	MATH 138/148	1B	Calculus II	M137	FWS	* a few other options - see first year advisor if you have issues
8	AFM 101	1	Introduction to Financial Accounting		FWS	
9	MATH 235/245	2A	Linear Algebra 2	M136	FWS	
10	MATH 237/247	2A	Calculus 3	M136, ≥ 60% M138	FWS	
11	STAT 230/240	2A	Probability	M137 >80% or M138	FWS	
12	STAT 231/241	2B	Statistics	M138, S230	FWS	
13	ACTSC 231	2A	Introductory Financial Mathematics	M137, level 2A, Coreq S230	FWS	
14	ACTSC 232	2B	Life Contingencies 1	>60% in A231, S230, Coreq MTHEL 131	FWS	
15	ACTSC 372	2/3	Investment Science and Corporate Finance	A231, M235, M237	FWS	
16	ACTSC 331	3A	Life Contingencies 2	≥60% in A232	FWS	
17	ACTSC 363	3A	Casualty and Health Insurance Mathematics 1	Coreq S330	FWS	
18	ENGL 378	3B/4	Professional Communications in Statistics and Actuarial Science	(A331 or S331) ≥70% in EMLS 101R, 102R, EMLS/ENGL 129R, ENGL 109, SPCOM 100, 223	FWS	
19	ACTSC 431	4	Casualty and Health Insurance Mathematics 2	≥60% in A363, S330, S331/371	FWS	
20	ACTSC 446	4	Mathematics of Financial Markets	A372, (S333 or 334)	FW	
21	STAT 330	3	Mathematical Statistics	M237, ≥60% in S230, S231	FWS	
22	STAT 333	3	Stochastic Processes 1	≥60% in S230/240, M237/247	FWS	
+	1 Additional 400 level ACTSC course; currently available courses include:					
	ACTSC 423/AFM 423	4	Topics in Financial Econometrics	S331/371	typically W	
	ACTSC 432	4	Credibility and Risk Theory	A363, S330, S333	S	
	ACTSC 445	4	Quantitative Enterprise Risk Management	A372, (S330 and 333 or 334)	FS	
	ACTSC 453	4	Basic Pension Mathematics	A331	W (odd years)	
	ACTSC 454	4	Longevity and Mortality using Predictive Analytics	A331, S330	W	
	ACTSC 455	4	Life Contingencies 3	≥60% in A331, co-req A446	W	
	ACTSC 456	4	Statistical Learning in Actuarial Science	S331/371, anti-req of STAT 441	FS	
	ACTSC 457	4	Predictive Modelling in P&C Insurance	A363, S331	F	
	ACTSC 489	4	Advanced Topics in Actuarial Science	varies	varies	
	ACTSC 447/CS 476	4	Numerical Computation for Financial Modelling	STAT231, CS370 or CS371/AMAT242	W	
+	Enough additional math to meet the minimum 26 required Math courses					

Updated on:

Students doing a Joint Actuarial Science must complete 26 math courses.

2026-08-20