Acadia University
Department of Mathematics & Statistics

Accredited courses that may be used towards the A.Stat. designation

Module	Course		Minimum Grade Required
Mathematics Modules			
1. Calculus I	MATH 1013 Introductory Calculus I AND MATH 1023 Introductory Calculus II		B-
2. Calculus II	MATH 2013 Advanced Calculus OR MATH 2753 Multivariate Calculus for Applied Science		B-
3. Linear Algebra	MATH 1323 Matrix Algebra OR MATH 1333 Introduction to Linear Algebra		B-
Statistics and probability modules			
4. Mathematical Statistics	MATH 4213/5213 Mathematical Statistics		B-
5. Linear Regression	MATH 3233/5133 Regression		B-
6. Design of Experiments	MATH 3273/5173 Design and Analysis of Experiments	(If only one of these two courses is taken, the other must be replaced by a course from the list below.)	B-
7. Survey Sampling	MATH 3263/5163 Sampling Theory		
8. Electives	**Select three from** MATH 3213/5113 Probability MATH 3253/5153 Nonparametric Statistical Inference MATH 3283/5183 Time Series MATH 3293/5193 Statistical Learning MATH 3633 Operational Research 2: Stochastic Models MATH 4223/5223 Generalized Linear Models MATH 4233/5233 Statistical Consulting BIOL 4253/5253 Data Science in Ecology BIOL 5023 Research Methods in Biology 2		B-

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Computer Skills		Minimum Grade Required
9. Computer skills I	COMP 1113 Computer Programming 1 OR COMP 1233 Introduction to Computer Science OR APSC 1413 Computer Programming for Applied Science 1	B-

10. Computer skills II	Standard productivity tools, common statistical packages and programming non-standard analyses are integrated in introductory statistics courses (as labs) and 3000- and 4000-level statistics courses.
	
	At least two of the following courses must be taken*:
	
	Any of the following 2-term sequences of introductory statistics courses, with labs**:
	  • MATH 1253 Statistics 1 + MATH 2243 Statistics 2 for Life Science
	  • MATH 1253 Statistics 1 + MATH 2253 Statistics 2 for Science
	  • MATH 2213 Applied Probability for Science and Engineering + MATH 2223 Applied Statistics for Science
	MATH 3233/5133 Regression
	MATH 3253/5153 Nonparametric Statistical Inference
	MATH 3263/5163 Sampling Theory
	MATH 3273/5173 Design and Analysis of Experiments
	MATH 3283/5183 Time Series
	MATH 3293/5193 Statistical Learning
	MATH 3633 Operational Research 2: Stochastic Models
	MATH 4223/5223 Generalized Linear Models
	MATH 4233/5233 Statistical Consulting
	BIOL 4253/5253 Data Science in Ecology
	BIOL 5023 Research Methods in Biology 2
	
	* Courses counted here may also be counted under modules 5, 6, 7 or 8.
	** 2-term intro course sequences with labs may count as 1 of 2 course credits required for the Computer skills II module.
		B-

Communication Skills		

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11. Communication skills	Students may take courses focused on communications (option 1 below), or complete 2 Co-op courses which include an end-of-term report (option 2 below), or complete a communication-intensive upper year course (option 3 below). Option 1: Any one of: COMM 1013 Communication for Kinesiology COMM 1213 Business Communication 1 COMM 1223 Public Speaking/Presentations ENGL 1413 Writing and Reading Critically 1 ENGL 1423 Writing and Reading Critically 2 ENGL 1483 Writing and Reading Critically Part 1 ENGL 1493 Writing and Reading Critically Part 2 Option 2: Any two of: COOP 1902 Co-operative Education 1 COOP 2902 Co-operative Education 2 COOP 3902 Co-operative Education 3 OR any one of: COOP 3706 Co-op Internship (12-Month) COOP 3806 Co-op Internship (16-Month) Option 3: Any one of: MATH 4233 Statistical Consulting MATH 4913 Honours Project MATH 407T + MATH 408T (Honours Thesis 1 + 2)	C+
Substantive Area		
12. Course 1 **13. Course 2** **14. Course 3**	3 courses in a single subject area outside of Statistics. Note: Acadia's minor requirements for a BSc. is 6 courses in a single subject and for a BA it is 8 courses in a single subject. Students meeting the minor requirement for their Acadia degree will meet the requirement for this module.	C+

Date of Expiration: 2029-12-12