UNIVERSITY OF WATERLOO

FACULTY OF MATHEMATICS | Department of Statistics and Actuarial Science
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University of Waterloo
Department of Statistics and Actuarial Science

List of accredited courses that may be used towards the A.Stat. designation.

Module	Accredited Course
Mathematics Modules (3 courses)	
1. Calculus I	MATH 137: Calculus I; or MATH 147: Calculus I (Advanced Level; hereby after Adv. Level)
2. Calculus II	MATH 138: Calculus II; or MATH 148: Calculus II (Adv. Level)
3. Linear Algebra	MATH 136: Linear Algebra I; or MATH 146: Linear Algebra I (Adv. Level)
Statistics and Probability Modules (7 courses)	
4. Mathematical Statistics	STAT 330: Mathematical Statistics STAT 450/850: Estimation and Hypothesis Testing STAT 908: Statistical Inference
5. Linear Regression	STAT 331: Applied Linear Models; or STAT 371: Applied Linear Models for Business
6-10. Five courses past an introductory course in statistics. One of which must be either Experimental Design or Sampling Theory and Practice. Both are recommended.	STAT 430/830: Experimental Design STAT 454/854: Sampling Theory and Practice
	STAT 332: Sampling and Experimental Design; or STAT 372: Sampling and Experimental Design Techniques for Business STAT 333: Stochastic Processes 1 STAT 337: Introduction to Biostatistics STAT 340: Stochastic Simulation Methods STAT 341: Computational Statistics and Data Analysis STAT 431/831: Generalized Linear Models and their Applications STAT 433/833: Stochastic Processes 2 STAT 435/835: Statistical Methods for Process Improvements STAT 436/836: Introduction to Analysis of Spatial Data in Health Research STAT 437: Statistical Methods for Life History Analysis STAT 438: Advanced Methods in Biostatistics STAT 440/840: Computational Inference STAT 441/841: Statistical Learning - Classification STAT 442/842: Data Visualization STAT 443: Forecasting STAT 444/844: Statistical Learning - Advanced Regression STAT 901: Theory of Probability 1 STAT 902: Theory of Probability 2 STAT 906: Computer Intensive Methods for Stochastic Models in Finance STAT 910: Bayesian Statistics STAT 923: Multivariate Analysis STAT 929: Time Series 1 STAT 931: Causal Inference and Epidemiological Studies STAT 932: Classification & Prediction in High Dimensional Analysis in Health Research STAT 935: Analysis of Survival Data STAT 936: Analysis of Longitudinal Data STAT 940: Deep Learning

Computer Skills Module (2 courses)	
11-12. Two courses covering computer skills	CS 115: Introduction to Computer Science I; or CS 135: Designing Functional Programs; or CS 145: Designing Functional Programs (Adv. Level); and one of CS 116: Introduction to Computer Science II; or CS 136: Elementary Algorithm Design and Data Abstraction; or CS 146: Elementary Algorithm Design and Data Abstraction (Adv. Level) STAT 440/840, 441/841, 442/842, 444/844, 906, 940 could be counted here.
Communication Skills Module (1 course)	
13. Communication skills	STAT 900: PhD Research Skills; or STAT 938: Statistical Consulting; or Any writing intensive course offered at UW (ENGL 378/MTHEL 300); or Completion of research paper towards MMath in Statistics and Biostatistics
Substantive Area (3 courses)	
14. Course 1	A minor from another department following the academic calendar. Please contact the SSC if you have a minor in mathematics to ensure that it will be acceptable; or Three courses at 300+ level from a *single* area other than Statistics (e.g., economics, business, psychology, actuarial science, etc.)
15. Course 2	
16. Course 3	

Date of Expiration: 2030-05-25