

University of Alberta

Department of Mathematical and Statistical Sciences

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

Module	Course	
Mathematics Modules		
1. Calculus I	MATH 214 - Calculus III MATH 217 - Honors Calculus III	
2. Calculus II	MATH 315 - Calculus IV MATH 317 - Honors Calculus IV	
3. Linear Algebra	MATH 225 - Linear Algebra II MATH 227 - Honors Linear Algebra II MATH 325 - Linear Algebra III	
Statistics and probability modules		
4. Mathematical Statistics	STAT 372 - Mathematical Statistics STAT 512 - Techniques of Mathematics for Statistics	
5. Linear Regression	STAT 378 - Applied Regression Analysis STAT 578 - Regression Analysis	
6. Design of Experiments	STAT 368 - Introduction to Design and Analysis of Experiments STAT 568 - 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.)
7. Survey Sampling	STAT 361 - Sampling Techniques STAT 561 - Sample Survey Methodology	
8. Electives	Select three from Probability and Stochastic Process STAT 371 - Probability and Stochastic Processes STAT 471 - Probability I STAT 571 - Probability and Measure STAT 580 - Stochastic Processes Multivariate Methods STAT 575 - Multivariate Analysis Discrete Data Analysis STAT 562 - Discrete Data Analysis Statistical Inference STAT 566 - Methods of Statistical Inference STAT 664 - Advanced Statistical Inference STAT 665 - Asymptotic Methods in Statistical Inference Biostatistics STAT 337 – Biostatistics STAT 514 - Statistics for Clinical Trials I STAT 515 - Statistics for Clinical Trials II Data Mining and Computational Statistics STAT 413 - Computing for Data Science	

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	<p>STAT 441 - Statistical Methods for Learning and Data Mining STAT 513 - Statistical Computing STAT 541 - Statistics for Learning Time Series STAT 479 - Time Series Analysis Survival Analysis STAT 432 / 532 - Survival Analysis Risk Theory STAT 353 - Life Contingencies I STAT 453/553 - Risk Theory Applied Statistics STAT 437 - Applied Statistical Methods STAT 590 - Statistical Consulting</p>
Computer Skills	
9. Computer skills I	<p>CMPUT 466 - Machine Learning Essentials CMPUT 467 - Machine Learning II</p>
10. Computer skills II	<p>CMPUT 566 - Machine Learning Essentials CMPUT 567 - Machine Learning II</p>
11. Communication skills	<p>1. Written communication: Students may demonstrate their abilities in this area by submitting written reports directly to the Accreditation Committee with their A.Stat. Application. As a possibility, such reports would normally be prepared in STAT 590 (Statistical Consulting) and as a component of service in the Training Consulting Centre. 2. Oral communication: The A.Stat. applicant's references will be contacted for information about the applicant's oral communication skills.</p>
Substantive Area	
12. Course 1	<p>This three course requirement will be met in/outside of our Statistics programs, and can be fulfilled in a number of ways. Possibilities are undergraduate minors in applicable mathematics (Operations Research, Applied Mathematics, etc.) or in Biological Sciences, Actuarial Sciences, etc. Students are encouraged to consult the A.Stat. Application Instructions on the web site of the Statistical Society of Canada for further information in this regard. Students may also contact the Accreditation Committee.</p>
13. Course 2	
14. Course 3	

Date of Expiration: 2029-12-12