

STATISTICS - MATHEMATICS JOINT, B.SC. HONOURS

Degree Requirements

Joint Honours (Including Co-operative Option if Selected)

Course	Title	Hours
Year 1		
MATH 1220	Linear Algebra 1 ¹	3
MATH 1230	Differential Calculus ¹	3
MATH 1232	Integral Calculus (B) ¹	3
MATH 1240	Elementary Discrete Mathematics	3
Hours		12

Years 1-2

The following courses must be taken in Year 1 or Year 2:		
STAT 1150	Introduction to Statistics and Computing ¹	3
STAT 2150	Statistics and Computing (B)	3
COMP 1010	Introductory Computer Science 1	3
6 credit hours from the Faculty of Arts, which should include the required "W" course		6
9 credit hours of approved electives		9
Hours		24

Year 2

STAT 2400	Introduction to Probability 1	3
STAT 2800	Introduction to Probability 2	3
MATH 2020	Algebra 1	3
MATH 2080	Introduction to Analysis	3
MATH 2090	Linear Algebra 2	3
MATH 2150	Multivariable Calculus	3
MATH 2160	Numerical Analysis 1	3
MATH 2180	Real Analysis 1	3
Hours		24

Year 3

STAT 3030	Introduction to Stochastic Processes	3
STAT 3100	Introduction to Statistical Inference	3
STAT 3150	Statistical Computing	3
STAT 3450	Linear Models	3
Hours		12

Years 3-4

MATH 2030	Combinatorics 1	3
MATH 3320	Algebra 2	3
MATH 3322	Algebra 3	3
MATH 3340	Complex Analysis 1	3
MATH 3470	Real Analysis 2	3
MATH 3472	Real Analysis 3	3
MATH 3440	Ordinary Differential Equations	3
MATH 3460	Partial Differential Equations	3
3 credit hours from:		3
MATH 2070	Graph Theory 1	
MATH 2170	Number Theory 1	

Any 3000/4000 level Mathematics courses		
3 credit hours from any 4000 level Mathematics courses		3
6 credit hours from any 4000 level Statistics courses		6
9 credit hours of approved electives		9
Co-op Requirements (if selected):		
SCI 3980	Co-operative Education Work Term 1	0
SCI 3990	Co-operative Education Work Term 2	0
SCI 4980	Co-operative Education Work Term 3	0
SCI 4990	Co-operative Education Work Term 4 (if a 4th work term is selected)	0
Hours		45
Year 4		
STAT 4100	Statistical Inference	3
Hours		3
Total Hours		120

¹ Students are strongly advised to take MATH 1220, MATH 1230, MATH 1232.

The following substitutions are allowed (but not advised), provided the grades indicated in brackets are achieved:

- MATH 1210 (A) or MATH 1300 (A) in place of MATH 1220;
- MATH 1500 (A) or MATH 1510 (A) in place of MATH 1230;
- MATH 1700 (A) in place of MATH 1232;
- MATH 1690 (B) in place of MATH 1230 and MATH 1232;
- STAT 1000 and STAT 2000 (B) in place of STAT 1150.

(Letters in brackets indicate minimum prerequisite standing for further study.)