

COMPUTER SCIENCE - STATISTICS JOINT, B.SC. HONOURS

Degree Requirements

Joint Honours (Including Co-operative Option if Selected)

Course	Title	Hours
Year 1		
COMP 1010	Introductory Computer Science 1	3
COMP 1020	Introductory Computer Science 2 (B)	3
STAT 1150	Introduction to Statistics and Computing ¹	3
STAT 2150	Statistics and Computing (B)	3
MATH 1220	Linear Algebra 1 ¹	3
MATH 1230	Differential Calculus ¹	3
MATH 1232	Integral Calculus ¹	3
MATH 1240	Elementary Discrete Mathematics	3
6 credit hours from the Faculty of Arts, which could include the required 3 credit hour "W" course		6
Hours		30
Year 2		
COMP 2080	Analysis of Algorithms	3
COMP 2140	Data Structures and Algorithms	3
COMP 2150	Object Orientation	3
COMP 2160	Programming Practices	3
STAT 2300	Principles of Data Collection	3
STAT 2400	Introduction to Probability 1	3
STAT 2800	Introduction to Probability 2	3
MATH 2080	Introduction to Analysis	3
MATH 2150	Multivariable Calculus ¹	3
3 credit hours of electives		3
Hours		30
Summer		
Co-op Requirements (if selected):		
SCI 3980	Co-operative Education Work Term 1	0
Hours		0
Year 3		
COMP 3170	Analysis of Algorithms and Data Structures	3
COMP 3380	Databases Concepts and Usage	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
12 credit hours of electives ³		12
Hours		30
Summer		
Co-op Requirements (if selected):		
SCI 3990	Co-operative Education Work Term 2	0
Hours		0

Year 4

STAT 4100	Statistical Inference	3
27 credit hours of electives ⁴		27
Hours		30

Summer

Co-op Requirements (if selected):

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		0
Total Hours		120

¹ The following substitutions are allowed:

- MATH 1500 (B) or MATH 1510 (B) may be taken in place of MATH 1230;
- MATH 1300 (B) may be taken in place of MATH 1220;
- MATH 1700 (B) or MATH 1710 (B) may be taken in place of MATH 1232;
- MATH 2720 may be taken in place of MATH 2150;
- STAT 1000 and STAT 2000 (B) may be taken in place of STAT 1150.

² The work terms SCI 3980, SCI 3990 and SCI 4980 will normally be completed in the summers following Year 2, Year 3 and Year 4, respectively and must be completed by the last academic term.

³ These must include 3 credit hours of COMP courses at the 3000 level. The following courses are suggested: COMP 3020, COMP 3350, COMP 3490, STAT 3490, STAT 3550, STAT 3690.

⁴ These must include 3 credit hours of COMP courses at the 3000 or 4000 level, 6 credit hours of COMP courses at the 4000 level, and 9 credit hours of STAT courses at the 4000 level. The following courses are suggested: COMP 4380, COMP 4710, STAT 4150, STAT 4250, STAT 4630.

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