

Computer Science - Mathematics and Statistics September Entry

Year	Term	Course	Title	Credit	Prerequisite	Co-requisite
Year 1	Fall	COMP 232	Mathematics for Computer Science	3.00	MATH 203, 204	
		COMP 248	Object-Oriented Programming I	3.50		MATH 204
		MAST 218	Multivariable Calculus I	3.00	MATH 204; 205	
		MAST 232	Mathematics with Computer Algebra	3.00	MATH 204; 205	
			Elective*			
	Winter	COMP 228	System Hardware	3.00	COMP 248	MATH 203, 204
		COMP 249	Object-Oriented Programming II	3.50	COMP 248; MATH 203	MATH 205
		ENCS 282	Technical Writing and Communication	3.00	Students must pass the Engineering Writing Test (EWT), or pass ENCS 272 with a grade of C- or higher	
		MAST 219	Multivariable Calculus II	3.00	MAST 218 or equivalent	
		MAST 324	Introduction to Optimization	3.00	MATH 205	
Year 2	Fall	COMP 339	Combinatorics	3.00	COMP 232 or 18 credits in post-Cegep Mathematics	
		COMP 352	Data Structures and Algorithms	3.00	COMP 249	COMP 232
		COMP 361	Elementary Numerical Methods	3.00	COMP 232, 249	
		MAST 221	Applied Probability	3.00	MATH 204; 205	MAST 218 or equivalent
		MAST 234	Linear Algebra and Applications I	3.00	MATH 204	
	Winter	COMP 335	Introduction to Theoretical Computer Science	3.00	COMP 232 or COEN 231; COMP 249 or COEN 244	
		COMP 346	Operating Systems	4.00	COMP 228 or SOEN 228; COMP 352	
		COMP 367	Techniques in Symbolic Computation	3.00	COMP 232 or MAST 217; COMP 248 or MAST 234	
		MAST 235	Linear Algebra and Applications II	3.00	MAST 234 or equivalent	
				Elective*		
Year 3	Fall	COMP 354	Introduction to Software Engineering	4.00	COMP 352; ENCS 282	
		COMP 465	Design and Analysis of Algorithms	3.00	COMP 232 or COEN 231; COMP 339; COMP 352 or COEN 352	
		MAST 331	Mathematical Modelling	3.00	MAST 234 or equivalent	MAST 221, 324
		COMP 348	Principles of Programming Languages	3.00	COMP 249	
			Elective*			

	Winter	ENCS 393	Social and Ethical Dimensions of Information and Communication Technologies	3.00	ENCS 282; 40 credits in BCompSc program	
		MAST 333	Applied Statistics	3.00	MAST 221 or equivalent	
			Elective*			

* For the list of electives which students must complete, please consult section 71.70.2 of the 2018-2019 Undergraduate Calendar.

Computer Science - Mathematics and Statistics January Entry

Year	Term	Course	Title	Credit	Prerequisite	Co-requisite
Year 1	Winter	COMP 232	Mathematics for Computer Science	3.00	MATH 203, 204	
		COMP 248	Object-Oriented Programming I	3.50		MATH 204
		MAST 218	Multivariable Calculus I	3.00	MATH 204; 205	
		MAST 232	Mathematics with Computer Algebra	3.00	MATH 204; 205	
		MAST 324	Introduction to Optimization	3.00	MATH 204	
	Summer	COMP 228	System Hardware	3.00	COMP 248	MATH 203, 204
		COMP 249	Object-Oriented Programming II	3.50	COMP 248; MATH 203	MATH 205
		ENCS 282	Technical Writing and Communication	3.00	Students must pass the Engineering Writing Test (EWT), or pass ENCS 272 with a grade of C- or higher	
			Elective*			
Year 2	Fall	COMP 339	Combinatorics	3.00	COMP 232 or 18 credits in post-Cegep Mathematics	
		COMP 352	Data Structures and Algorithms	3.00	COMP 249	COMP 232
		COMP 361	Elementary Numerical Methods	3.00	COMP 232, 249	
		MAST 221	Applied Probability	3.00	MATH 204; 205	MAST 218 or equivalent
		MAST 234	Linear Algebra and Applications I	3.00	MATH 204	
	Winter	COMP 335	Introduction to Theoretical Computer Science	3.00	COMP 232 or COEN 231; COMP 249 or COEN 244	
		COMP 346	Operating Systems	4.00	COMP 228 or SOEN 228; COMP 352	
		COMP 367	Techniques in Symbolic Computation	3.00	COMP 232 or MAST 217; COMP 248 or MAST 234	
		MAST 219	Multivariable Calculus II	3.00	MAST 218 or equivalent	
		MAST 235	Linear Algebra and Applications II	3.00	MAST 234 or equivalent	

Year 3	Fall	COMP 354	Introduction to Software Engineering	4.00	COMP 352; ENCS 282	
		COMP 465	Design and Analysis of Algorithms	3.00	COMP 232 or COEN 231; COMP 339; COMP 352 or COEN 352	
		MAST 331	Mathematical Modelling	3.00	MAST 234 or equivalent	MAST 221, 324
		COMP 348	Principles of Programming Languages	3.00	COMP 249	
			Elective*			
	Winter	ENCS 393	Social and Ethical Dimensions of Information and Communication Technologies	3.00	ENCS 282; 40 credits in BCompSc program	
		MAST 333	Applied Statistics	3.00	MAST 221 or equivalent	
			Elective*			

* For the list of electives which students must complete, please consult section 71.70.2 of the 2018-2019 Undergraduate Calendar.