

Computer Science & Statistics							
Module Code	Module Title	ECTS Credits	Semester/ Duration	% Exam	% CA	Pre-requisite	Notes
CSU11026	Digital Logic Design	10	Full Year	100	0	None	
STU11004	Introduction To Management Science	10	Full Year	35	65	None	
STU22006	Management Science Methods	10	Full Year	70	30	STU11004	
STU44003	Data Analytics	10	Full Year	30	70	None	
STU45006	Strategic Information Systems	10	Full Year	0	100	Information Systems and Technology or equivalent	
CSU11001	Mathematics I	5	Semester 1	65	35	None	
CSU11011	Introduction to Programming I	5	Semester 1	60/90	40/10	None	
CSU11021	Introduction To Computing I	5	Semester 1	40	60	None	
CSU11031	Electronics And Information Technology	5	Semester 1	75	25	None	
CSU11081	Computers And Society	5	Semester 1	0	100	None	
CSU22011	Algorithms And Data Structures I	5	Semester 1	65	35	An introductory course on programming; CSU11010	
CSU22014	Systems Programming I	5	Semester 1	80	20	CSU11010, CSU12002, CSU11021, CSU11022 Module Co-Requisite: CSU22011	
CSU22022	Computer Architecture I	5	Semester 1	0	100	None	
CSU22041	Information Management I	5	Semester 1	80	20	Programming Language such as Java or C	

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CSU22061	Intermediate Programming	5	Semester 1	60	40	None, though some prior experience of programming a definite advantage, and is something participants from the CSL degree will have from their first year Java course.	
CSU22E03	Computer Engineering	5	Semester 1	50	50	CSU11E03	
CSU33012	Software Engineering	5	Semester 1	0	100	Students should have reasonable experience with a modern programming language. Students should be prepared for significant personal software development work: this module has a strong practical focus and requires constant and regular input	
CSU33031	Computer Networks	5	Semester 1	40	60	Being able to develop software solutions in a language such as Java, Python, C/C++/C#/F#, etc.	
CSU33081	Computational Mathematics	5	Semester 1	80	20	CSU11001 , CSU12002 & MAU2C00	
CSU33D01	Microprocessor Systems	5	Semester 1	90	10	None	
CSU33D05	Data Structures & Algorithms	5	Semester 1	40	60	CSU22E03. Good working knowledge of C and C++.	
CSU34011	Symbolic Programming	5	Semester 1	80	20	none	

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CSU34016	Introduction to Functional Programming	5	Semester 1	80	20	Familiarity with a main-stream (imperative) programming language, such as Java, C, python, or similar, and some experience in programming with that language. No prior experience with functional programming languages such as Haskell, ML, OCaml, Scheme, LISP, etc., is required.	
CSU34021	Computer Architecture II	5	Semester 1	60	40	Assembly language and C/C++ programming	
CSU44001	Fuzzy Logic & Control Systems	5	Semester 1	0	100	None	
CSU44004	Formal Verification	5	Semester 1	65	35	Maths, Programming.	
CSU44012	Topics In Functional Programming	5	Semester 1	0	100	CSU34016 Functional Programming. A reasonable grounding in the programming language Haskell (experience with similar languages such as ML) is required.	
CSU44051	Human Factors	5	Semester 1	0	100	None	
CSU44052	Computer Graphics	5	Semester 1	40	60	C or C++ programming, freshman mathematics.	
CSU44053	Computer Vision	5	Semester 1	50	50	A working knowledge of C++/p>	
CSU44061	Machine Learning	5	Semester 1	50	50	none	

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CSU44062	Advanced Computational Linguistics	5	Semester 1	70	30	No pre-requisite: to implement and experiment with tools will need to be able to program in C+/p>	
CSU44D01	Information Management For Engineering	5	Semester 1	75	25	None	
STU11001	Software Applications I	5	Semester 1	0	100	none	
STU12501	Introduction To Statistics I	5	Semester 1	100	0	None	
STU22004	Applied Probability I	5	Semester 1	80	20	Elementary mathematics including integration.	
STU23501	Probability and Theoretical Statistics I	5	Semester 1	100	0	STU12501, STU12502	
STU33002	Statistical Analysis III	5	Semester 1	0	100	None	
STU33010	Forecasting	5	Semester 1	60	40	Basic Statistics and Mathematics	
STU33011	Multivariate Linear Analysis	5	Semester 1	80	20	None	
STU34501	Applied Linear Statistical Methods I	5	Semester 1	90	10	STU23501	
STU34507	Statistical Inference I	5	Semester 1	90	10	STU23501	
CSU11012	Introduction To Programming II	5	Semester 2	80	20	None	
CSU11022	Introduction To Computing II	5	Semester 2	40	60	CSU11021	

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CSU11E03	Computer Engineering I	5	Semester 2	70	30	None	
CSU12002	Mathematics II	5	Semester 2	85	15	CSU11001	
CSU22012	Algorithms and Data Structures II	5	Semester 2	40	60	CSU22011: Algorithms and Data Structures I	
CSU22062	Natural Language Processing	5	Semester 2	60	40	None	
CSU23016	Concurrent Systems and Operating Systems	5	Semester 2	80	20	CSU22014. The programming exercises all use the C programming language so some familiarity and experience with C is required.	
CSU23021	Microprocessor Systems	5	Semester 2	0	100	CSU11021/22 (Introduction to Computing I & II)	
CSU33014	Concurrent Systems I	5	Semester 2	80	20	CSU22014. A good knowledge of C programming Module Co-requisite: CSU34021	
CSU33032	Advanced Computer Networks	5	Semester 2	80	20	CSU33031 Computer Networks	
CSU33061	Artificial Intelligence I	5	Semester 2	80	20	CSU34011/ Equivalent programming experience.	
CSU33071	Compiler Design I	5	Semester 2	70	30	A basic understanding of machine architectures along with a thorough knowledge of programming in both assembly language and in high level programming languages such as C, C#, C++ or JAVA.	

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CSU33D03	Computer Networks	5	Semester 2	50	50	None	
CSU33D06	Software Design Analysis	5	Semester 2	0	100	None	
CSU34041	Information Management II	5	Semester 2	75	25	None	
CSU44032	Security and Privacy	5	Semester 2	80	20	Basic knowledge of programming, networking and internet protocols.	
CSU44060	Knowledge Representation and Automata	5	Semester 2	80	20	Programming experience	
CSU44081	Entrepreneurship & High Tech Venture Creation	5	Semester 2	40	60	None	
CSU44098	Group Design Project	10	Semester 2	0	100	An ability to program, at a level typical for Year 4 Computer Science students.	
CSU44D02	Knowledge Engineering	5	Semester 2	0	100	None	
STU11002	Statistical Analysis I	5	Semester 2	70	30	None	
STU12502	Introduction To Statistics Ii	5	Semester 2	80	20	STU12501. Knowledge of elementary probability, especially the normal distribution, expectation and variance.	
STU22005	Applied Probability Ii	5	Semester 2	85	15	STU11002, STU22004	
STU2201A	Software Applications A II	5	Semester 2	0	100	STU11001 ➡ Software Applications I	
STU33004	Research Methods	5	Semester 2	0	100	None	

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