

## Sample Study Plan for BEng(CompSc) with 2<sup>nd</sup> Major in Mathematics [3-Year Curriculum]

		Semester 1			Semester 2		
Year 1 (66 cu)	UG5 Requirements (6 + 3 cu)	ENGG1002	Computer programming and applications	6	CSIS1119	Introduction to data structures and algorithms	6
	CS Core (21 + 18 cu)	ENGG1004	Mathematics IA	3	CSIS1120	Computer organization	6
	Math Requirement (6 + 12 cu)	ENGG1007	Foundations of computer science	6	CSIS1122	Computer programming II	6
		ENGG10xx	1 General Engineering course *	6	CAES1503	English for computer science	3
		CAES1515	Professional and technical oral communication for engineers	3	MATH1001	Fundamentals concepts of mathematics	6
		CENG1001	Practical Chinese language course for engineering students	3	MATH1211	Multivariable calculus	6
		MATH1111	Linear algebra	6			
Year 2 (72 cu)	UG5 Requirements (12 + 0 cu)	CSIS0230	Principles of operating systems	6	CSIS0234	Computer and communication networks	6
	CS Core (12 + 12 cu)	CSIS0278	Introduction to database management systems	6	CSIS0250	Design and analysis of algorithms	6
	Complementary Studies (0 + 6 cu)	UCC	University Common Core	6	ELEC2814	Engineering management and society	6
	Math Requirement (12 + 12 cu)	UCC	University Common Core	6	MATH Elective	Elective course in mathematics	6
		MATH2201	Introduction to mathematical analysis	6	MATH Elective	Elective course in mathematics	6
		MATH2301	Algebra I	6			
	Summer (6 cu)	CSIS1412	Industrial Training	6			
Year 3 (72 cu)	Capstone Experience (12 cu)	CSIS0801	Final year project	6	CSIS0801	Final year project	6
	CS Electives (21 + 18 cu)	CSIS0396	Object-oriented programming and Java #	6	CSIS0297	Introduction to software engineering #	6
	Math Requirement (12 + 18 cu)	CS Elective	Elective course in computer science	6	CS Elective	Elective course in computer science	6
		CS Elective	Elective course in computer science	6	MATH Elective	Elective course in mathematics	6
		MATH2401	Analysis I	6	MATH Elective	Elective course in mathematics	6
		MATH2403	Functions of a complex variable	6	MATH Elective	Elective course in mathematics	6

\* List of General Engineering Courses (6 cu each):

ENGG1006      Engineering for sustainable development  
 ENGG1009      Industrial management and logistics  
 ENGG1011      Introduction to biomedical engineering

ENGG1015      Introduction to electrical and electronic engineering  
 ENGG1018      Introduction to mechanical engineering

# Academic Advisor's recommendation of CS elective courses