

Sample Study Plan for BEng(CompSc) with Minor in Computational & Financial Mathematics [4-Year Curriculum]

		Semester 1		Semester 2	
Year 1 (60 cu)	UG5 Requirements (12 + 12 cu) General Engineering (18 + 18 cu)	MATH1851 / MATH1853 ENGG1111 ENGG1202 / ENGG120x CAES1000 UCC	Calculus and ordinary differential equations / Linear algebra, probability and statistics Computer programming and applications Introduction to computer science / General Engineering course * Core University English University Common Core	MATH1851 / MATH1853 PHYS1050 ENGG1202 / ENGG120x UCC UCC	Calculus and ordinary differential equations / Linear algebra, probability and statistics Physics for engineering students Introduction to computer science / General Engineering course * University Common Core University Common Core
Year 2 (60 cu)	UG5 Requirements (6 + 12 cu) CS Core (12 + 12 cu) CS Electives (6 + 0 cu) CF requirement (6 + 6 cu)	COMP2121 COMP2123 COMP2396 MATH2101 / MATH2211 UCC	Discrete mathematics Programming technologies and tools Object-oriented programming and Java # Linear algebra I / Multivariable calculus University Common Core	COMP2119 COMP2120 MATH2101 / MATH2211 UCC UCC	Introduction to data structures and algorithms Computer organization Linear algebra I / Multivariable calculus University Common Core University Common Core
Year 3 (66 cu)	UG5 Requirements (6 + 0 cu) CS Core (18 + 18 cu) CS Electives (0 + 6 cu) CF requirement (6 + 6 cu)	COMP3230 COMP3278 COMP3297 CENG9001 MATH3601 / MATH3906	Principles of operating systems Introduction to database management systems Software engineering Practical Chinese for engineering students Numerical analysis / Financial calculus	COMP3234 COMP3250 COMP3311 CS Elective MATHxxxx	Computer and communication networks Design and analysis of algorithms Legal aspects of computing Elective course in computer science MATH2012 or MATH2241 or an advanced level disciplinary elective course in lieu of MATH1013
	Summer (6 cu)	COMP3412	Internship		
Year 4 (54 cu)	UG5 Requirements (6 + 0 cu) Capstone Experience (12 cu) CS Electives (12 + 6 cu) CF requirement (6 + 12 cu)	COMP4801 CAES9542 CS Elective CS Elective MATH3601 / MATH3906	Final year project Technical English for computer science Elective course in computer science Elective course in computer science Numerical analysis / Financial calculus	COMP4801 CS Elective CF Elective CF Elective	Final year project Elective course in computer science Elective course in actuarial studies Elective course in actuarial studies

* List of General Engineering Courses:

ENGG1201 Engineering for sustainable development
 ENGG1203 Introduction to electrical and electronic engineering
 ENGG1204 Industrial management and logistics

ENGG1205 Introduction to mechanical engineering
 ENGG1206 Introduction to biomedical engineering
 ENGG1207 Foundation of biochemistry for medical engineering

Academic Advisor's recommendation of CS elective course