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 (18 + 6 cu) General Engineering (12 + 24 cu)	MATH1851 / MATH1853 PHYS1050 CAES1000 UCC UCC	Calculus and ordinary differential equations / Linear algebra, probability and statistics Physics for engineering students Core University English University Common Core University Common Core	MATH1851 / MATH1853 ENGG1111 ENGG1202 ENGG120x UCC	Calculus and ordinary differential equations / Linear algebra, probability and statistics Computer programming and applications Introduction to computer science 1 General Engineering course * University Common Core
Year 2 (60 cu)	UG5 Requirements (12 + 6 cu) CS Core (12 + 12 cu) CF requirement (6 + 12 cu)	COMP2121 COMP2123 MATH1013 UCC UCC	Discrete mathematics Programming technologies and tools University mathematics II University Common Core University Common Core	COMP2119 COMP2120 UCC MATH2101 MATH2211	Introduction to data structures and algorithms Computer organization University Common Core Linear algebra I Multivariable calculus
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	Principles of operating systems Introduction to database management systems Introduction to software engineering Practical Chinese for engineering students Numerical analysis	COMP3234 COMP3250 COMP3311 COMP2396 CF Elective	Computer and communication networks Design and analysis of algorithms Legal aspects of computing Object-oriented programming and Java # Elective course in actuarial studies
	Summer (6 cu)	COMP3412	Internship		
Year 4 (54 cu)	UG5 Requirements (6 + 0 cu) Capstone Experience (12 cu) CS Electives (12 + 12 cu) CF requirement (6 + 6 cu)	COMP4801 CAES9542 CS Elective CS Elective MATH3906	Final year project Technical English for computer science Elective course in computer science Elective course in computer science Financial calculus	COMP4801 CS Elective CS Elective CF Elective	Final year project Elective course in computer science Elective course in computer science Elective course in actuarial studies

* List of General Engineering Courses:

ENGG1201	Engineering for sustainable development	ENGG1205	Introduction to mechanical engineering
ENGG1203	Introduction to electrical and electronic engineering	ENGG1206	Introduction to biomedical engineering
ENGG1204	Industrial management and logistics		

Academic Advisor's recommendation of CS elective course