

Suggested course plan for students enrolled in the B.Sc./B.E. combined course leading to a Physics major and entry to Physics Honours

Year 1		BSc/BE[237.5pnts]	1st year of course		B.Sc./B.E.	
Semester	Code	Subject Name	Points	Software stream		
1	640-121/141	Physics	12.5	12.5		
1	620-121/141	Mathematics 1A	12.5	12.5		
1	433-141	Computing Fundamentals A	12.5	12.5		
1	431-102	Engineering [Digital Electronics & Microprocessors]	12.5	12.5		
2	640-122/142	Physics	12.5	12.5		
2	620-113/123/143	Applied Mathematics	12.5	12.5		
2	620-112/122/142	Mathematics 1B	12.5	12.5		
2	431-142	Computing Fundamentals B	12.5	12.5		
Total Science points for year*				87.5		

* Also incorporates compulsory CS units

Year 2		2nd year of course		Points	Software stream	
1	640-223/243*	Quantum Mechanics and Thermal Physics	12.5	12.5		
1	620-231/3	Vector Analysis	12.5	12.5		
1	433-252	Software Engineering Principles & Tools		12.5		
1	433-253	Algorithms and Data Structures		12.5		
2	640-225/245*	Electromagnetism and Relativity	12.5	12.5		
2	620-232/4	Mathematical Methods	12.5	12.5		
2	433-254	Software Design		12.5		
2	433-103	Engineering [Electrical Circuits]		12.5		
Total Science points for year*				87.5		

* Also incorporates compulsory CS units

Students who completed Computing Fundamentals B in first year instead of Applied Maths will need to modify their course plan accordingly. Electrical stream students could take Engineering Maths instead of Maths 231 and 232, but must ensure they have sufficient Science points

Year 3		3rd year of course		Points	Software stream	
1	433-340/341/343	Engineering and CS subjects		37.5		
1	431-204	Engineering and CS subjects		12.5		
2	433-340	Engineering and CS subjects		12.5		
2	433-255	Logic and Computation		12.5		
2	640-299**	Laboratory	12.5	12.5		
2	433-3xx/640-381/431-328	Engineering and CS subjects		37.5		
Total Science points for year				25		

** Software engineering students must do 299 Laboratory work

Note: the Eng. Handbook Entry should be checked by contacting both Physics & Eng course advisors.

Year 4		4th year of course		Points	Software stream	
1	640-237	Astrophysics and Optics II*	12.5	12.5		
1	433-440/443	Engineering and CS subjects		25		
1	433-3xx/620-201/431-325	Engineering and CS subjects		12.5		
2	433-440	Engineering and CS subjects		12.5		
2	640-234	Further classical and quantum mechanics*	12.5	12.5		
2	433-3xx	Engineering and CS subjects		37.5		
Total Science points for year				25		

* Choose one to avoid overload

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Note: the Eng. Handbook Entry should be checked by contacting both Physics & Eng course advisors.

Year 5		5th year of course		Points	Software stream	
		Enrol in standard 300-level Science subjects. See relevant section of course advice document.				
Total Science points for year				100		