

Honours in Physics (132 credits)	Honours in Physics (114 credits) Program abolished
Requirements 2003-2005	New course codes 2006
Compulsory first-year credits 33 Suggested course stream for full-time students	Compulsory first-year credits 30 Suggested course stream for full-time students
Fall:	Fall:
MAT1320 Calculus I 3	MAT1320 Calculus I 3
PHY1101 Fundamentals of Physics I 3	PHY1121 Fundamentals of Physics I 3
PHY1201 Physics Laboratory 3	
Four credits from:	Four credits from:
ITI1220 Introduction to Computer Science I -4	ITI1120 Introduction to Computer Science I 3
CSI1303 Introduction to Computing Concepts -4	CSI1308 Introduction to Computing Concepts 3
GNG1101 Fundamentals of Engineering Computation -4	GNG1106 Fundamentals of Engineering Computation 3
Winter:	Winter:
MAT1322 Calculus II 3	MAT1322 Calculus II 3
PHY1102 Fundamentals of Physics II 3	PHY1122 Fundamentals of Physics II 3
Fall or Winter:	Fall or Winter:
MAT1341 Introduction to Linear Algebra 3	MAT1341 Introduction to Linear Algebra 3
Eleven credits (minimum) from the following list or from 11 other courses approved by the Department:	Twelve credits (minimum) from the following list or from 12 other courses approved by the Department:
Fall:	Fall:
BIO1109 Principles of Biology 3	BIO1109 Principles of Biology 3
BIO1120 Introduction to Organismal Biology -4	BIO1130 Introduction to Organismal Biology 3
CHM1310 Principles of Chemistry -4	CHM1311 Principles of Chemistry 3
CHM2116 Laboratory of Environmental Chemistry -2	
CHM2352 Descriptive Inorganic Chemistry 3	CHM2353 Descriptive Inorganic Chemistry 3
GEO1115 Introduction to Earth Materials 3	GEO1115 Introduction to Earth Materials 3
GNG1100 Engineering Mechanics -4	GNG1105 Engineering Mechanics 3
GNG1102 Fundamentals of Computer Hardware -2	
Winter:	Winter:
BIO1110 Introduction to Cell Biology -4	BIO1140 Introduction to Cell Biology 3
CHG1120 Chemical Engineering Fundamentals -4	GNG1125 Chemical Engineering Fundamentals 3
CHM1320 Organic Chemistry I -4	CHM1321 Organic Chemistry I 3
CHM2311 Introduction to Structure and Bonding 3	CHM2311 Introduction to Structure and Bonding 3
ITI1221 Introduction to Computer Science II -4	ITI1121 Introduction to Computer Science II 3
GEO1111 Introduction to Earth Systems 3	GEO1111 Introduction to Earth Systems 3
Compulsory second-year credits 33	Compulsory second-year credits 24
Fall:	Fall:
MAT2122 Calculus III 3	
MAT2141 Honours Linear Algebra I 3	MAT2141 Linear Algebra I 3
or	
MAT2341 Linear Algebra 3	

MAT2371 Introduction to probability	3	MAT2371 Introduction to probability	3
or		or	
MAT2377 Probability and Statistics for Engineers (winter)	3	MAT2377 Probability and Statistics for Engineers (winter)	3
MAT2324 Ordinary Differential Equation and Laplace Transformation	3	MAT2324 Ordinary Differential Equation and Laplace Transformation	3
or		or	
MAT2334 Ordinary Differential Equations and Numerical Methods	3	MAT2384 Ordinary Differential Equations and Numerical Methods	3
PHY2004 Practical Physics	-6	PHY2904 Practical Physics	3
PHY2310 Applied Optics	3	PHY2311 Waves and Optics	3
PHY2330 Mechanics	3	PHY2333 Mechanics	3
Winter :		Winter :	
PHY2323 Electricity and Magnetism	3	PHY2323 Electricity and Magnetism	3
PHY2337 Mechanics II	3		
PHY2361 Modern Physics	3	PHY2361 Modern Physics	3
3 credits outside the Faculties of Science or Engineering	3	3 credits outside the Faculties of Science or Engineering	3
Compulsory third and fourth –year credits	42	Compulsory third and fourth –year credits	36
Fall:		Fall:	
PHY3341 Theoretical Physics	3	PHY3341 Theoretical Physics	3
PHY3350 Thermodynamics	3	PHY3350 Thermodynamics	3
PHY3370 Introductory Quantum Mechanics	3	PHY3370 Introductory Quantum Mechanics	3
PHY3904 Physics and Applied Physics Laboratory I	-4	PHY3902 Physics and Applied Physics Laboratory I	3
PHY3903 Contemporary Issues in Physics	2		
PHY4362 Subatomic Physics I	3	PHY4362 Subatomic Physics I	3
PHY4005 Physics Project	-8	PHY4006 Physics Research Project	6
or		or	
PHY4904 Physics Laboratory	-4	PHY4903 Physics Laboratory	3
and		and	
PHY4905 Physics Project (winter)	-4	PHY4906 Physics Project	3
Winter:		Winter:	
PHY3320 Electromagnetics Theory	3	PHY3320 Electromagnetics Theory	3
PHY3355 Statistical Thermodynamics	3	PHY3355 Statistical Thermodynamics	3
PHY3905 Physics and Applied Physics Laboratory II	-4	PHY3904 Physics and Applied Physics Laboratory II	3
PHY4370 Quantum Mechanics	3	PHY4370 Quantum Mechanics	3
PHY4382 Introduction to Solid State Physics	3	PHY4382 Introduction to Solid State Physics	3
6 credits outside the Faculties of Science or Engineering	6	6 credits outside the Faculties of Science or Engineering	6
Nine credits of science electives from the following list or approved 5000-level courses:	9	Nine credits of science electives from the following list or approved 5000-level courses:	9
PHY4310 Advanced Optics and Introduction to Photonics	3	PHY4310 Advanced Optics and Introduction to Photonics	3
PHY4327 Applications of Integrated Circuits in Physics	3	PHY4327 Applications of Integrated Circuits in Physics	3
PHY4330 Advanced Dynamics	3	PHY4330 Advanced Dynamics	3
PHY4335 Physics of Continuous Media	3	PHY4335 Physics of Continuous Media	3
PHY4340 Computational Physics I	-4	PHY4140 Computational Physics I	3
PHY4344 Computational Physics II	-4	PHY4141 Computational Physics II	3
PHY4346 General Relativity	3	PHY4346 General Relativity	3
PHY4361 Applied Nuclear Physics	3	PHY4361 Applied Nuclear Physics	3
PHY4368 Subatomic Physics II	3	PHY4368 Subatomic Physics II	3
PHY4385 Solid State Physics	3	PHY4385 Solid State Physics	3
PHY4387 Physics of Materials	3	PHY4387 Physics of Materials	3
PHY4390 Selected Topics in Physics	3	PHY4390 Selected Topics in Physics	3

PHY4395 Astrophysics	3	PHY4395 Astrophysics	3
Three credits in science or engineering at the 3000- or 4000 level, excluding MAT3320.	3	Three credits in science or engineering at the 3000- or 4000 level, excluding MAT3320.	3
3 credits outside the Faculties of Science or Engineering	3	3 credits outside the Faculties of Science or Engineering	3