

Bachelor of Science

Major in Applied Physics

ASSUMED KNOWLEDGE

- For Astronomy and Astrophysics, Mathematics, Statistical Data Science and Applied Physics majors: HSC Mathematics Advanced (Band 4), or equivalent.
- If you haven't met the required minimum level of achievement (Band 4 or equivalent), you can undertake an alternative introductory unit of study in that area.

RECOMMENDED STUDIES

- HSC Mathematics Advanced or equivalent, at least 2 units of science.
- For Astronomy and Astrophysics, and Applied Physics majors: HSC Physics.
- For Mathematics major: HSC Mathematics Extension 1 (Band E2) or HSC Mathematics Extension 2, or equivalent.

COURSE STRUCTURE

ESSENTIAL UNITS: Complete each unit below		20 cp
FOSE1000 Becoming a Scientist		
FOSE2000 The Science Practitioner		
CAPSTONE UNIT: Complete each unit below		10 cp
FOSE3000 Making Science Work for You and Society: Capstone		
ELECTIVE UNITS: Statistics (choose one)		10 cp
STAT1170 Introductory Statistics		
STAT1371 Statistical Data Analysis		
ELECTIVE UNITS: Data & Computing		10 cp
- Students enrolling in Astronomy and Astrophysics, Applied Physics, Mathematics or Statistical Data Science majors must enrol in FOSE1030. - Students enrolling in Biology, Biotechnology, Chemistry, Human Biology, and Earth and Environmental Sciences majors must enrol in FOSE1025. - Students enrolling in double majors that require both FOSE1025 and FOSE1030 can complete the other Data & Computing unit not selected below in the Other Science - 20 credit points option set.		
FOSE1025 Scientific Computing		
FOSE1030 Introduction to Python Programming		
ELECTIVE UNITS: Other Science (Choose one)		20 cp
Complete 20 credit points from Any 1000 or 2000 level unit coded: ASTR, BIOL, CHEM, EESC, ENVS, MATH, PHYS, STAT, BMOL, MOLS, FOSE.		
ELECTIVE UNITS: PACE (Choose one)		10 cp
PHYS3810 PACE: Professional Experience in Physics and Astronomy		
MOLS3002 PACE: Engaging the Community in Science		
Core Zone = 80 Credit Points		

MAJOR in Applied Physics: Complete all units below		80 cp
PHYS1010	Modern Mechanics	
PHYS1020	Electric and Magnetic Interactions	
PHYS2010	Classical Mechanics	
PHYS2020	Electromagnetism and Relativity	
PHYS2030	Quantum Physics	
PHYS3010	Advanced Electromagnetism and Optics	
PHYS3140	Advanced Quantum Mechanics and Quantum Optics	
PHYS3180	Condensed Matter and Statistical Physics	
Major = 80 Credit Points		

Flexible zone		80 cp
You can use your flexible zone to enrol in any Undergraduate unit for which you meet the requisites. You may also use your flexible zone to complete a second major, listed below, or a minor(s).		

Options include: Ancient History, Anthropology, Applied Physics, Astronomy and Astrophysics, Biology, Biotechnology, Business Administration, Business Analytics, Business Information Systems, Chemistry, Chinese Studies, Creative Writing, Criminology, Critical Indigenous Studies, Cyber Security Governance, Earth and Environmental Sciences, Economics, English, French and Francophone Studies, Gender Studies, Geography, German Studies, Health, Wellbeing and Society, Human Biology, Human Resource Management, Interactive Design, International Business, International Relations, Japanese Studies, Journalism and Non-Fiction Writing, Management and Leadership, Marine Science, Mathematics, Media, Culture and Communications, Modern History, Music Studies, Performing Arts and Entertainment Industries, Philosophy, Politics, Psychological Science, Public Relations and Social Media, Radio, Podcasting, and Audio Media, Screen Practice and Production, Sociology, Spanish and Latin American Studies, Statistical Data Science, Strategy, Innovation and Entrepreneurship, Work, Life and Technology.

Flexible Zone = 80 Credit Points	
Degree = 240 Credit Points	

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Macquarie University, Wallumattagal Campus
+61 (2) 9850 7111

