

Bachelor of Engineering Science 2023 Study Planner



Science & Engineering

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Semester 1 Start: BIOMEDICAL MAJOR

First Level	Semester 1	NMCY1001 Academic and Professional Numeracy	ENGR1711 Engineering Design	PHYS1701 Physics for the Modern World	Major topic MMED1005 How Your Body Works: Human Physiology and Structure
	Semester 2	MATH1701 Algebra and Functions	ENGR1401 Professional Skills	ENGR1201 Electronics (4.5 units)	Elective
Second Level	Semester 1	MATH1121 Mathematics 1A	PHYS1101 Fundamental Physics 1	ENGR1721 Engineering Programming	Elective
	Semester 2	MATH1122 Mathematics 1B	ENGR1722 Engineering Materials and Systems	Major topic ENGR2732 Biomechanics	Major topic ENGR2742 Biomedical Instrumentation
Third Level	Semester 1	ENGR2711 Engineering Mathematics	Major topic MMED2931 Human Physiology	Major topic ENGR3741 Physiological Measurement	Major Option topic S1
	Semester 2	ENGR9742 Systems Engineering	ENGR3100 Engineering Science Project	Major topic ENGR2722 Signals and Systems	Major topic ENGR2772 Sensors and Actuators

Semester 2 Start: BIOMEDICAL MAJOR

First Level	Semester 2	NMCY1001 Academic and Professional Numeracy	ENGR1401 Professional Skills	ENGR1201 Electronics (4.5 units)	Major topic MMED1005 How Your Body Works: Human Physiology and Structure
	Semester 1	MATH1701 Algebra and Functions	ENGR1711 Engineering Design	PHYS1701 Physics for the Modern World	Elective
Second Level	Semester 2	MATH1121 Mathematics 1A	ENGR1722 Engineering Materials and Systems	Major topic ENGR2742 Biomedical Instrumentation	Major topic ENGR2772 Sensors and Actuators
	Semester 1	MATH1122 Mathematics 1B	PHYS1101 Fundamental Physics 1	ENGR1721 Engineering Programming	Major topic MMED2931 Human Physiology
Third Level	Semester 2	ENGR3100 Engineering Science Project	ENGR9742 Systems Engineering	Major topic ENGR2722 Signals and Systems	Major topic ENGR2732 Biomechanics
	Semester 1	Elective	ENGR2711 Engineering Mathematics	Major Option topic S1	Major topic ENGR3741 Physiological Measurement

Semester 1 Start: CIVIL MAJOR

First Level	Semester 1	NMCY1001 Academic and Professional Numeracy	ENGR1711 Engineering Design	PHYS1701 Physics for the Modern World	Major topic EASC1101 Earth and Environmental Sciences
	Semester 2	MATH1701 Algebra and Functions	ENGR1401 Professional Skills	ENGR1201 Electronics (4.5 units)	Elective
Second Level	Semester 1	MATH1121 Mathematics 1A	PHYS1101 Fundamental Physics 1	ENGR1721 Engineering Programming	Major topic GIST1001 Geospatial Information Systems
	Semester 2	MATH1122 Mathematics 1B	ENGR1722 Engineering Materials and Systems	Major topic ENGR2822 Civil Engineering Design	Major topic ENGR2832 Engineering Geology and Geomechanics
Third Level	Semester 1	ENGR2711 Engineering Mathematics	Major topic ENGR2741 Mechanics and Structures	Major topic ENGR2751 Fluid Mechanics	Major Option topic
	Semester 2	ENGR9742 Systems Engineering	ENGR3100 Engineering Science Project	Elective	Major Option topic

Semester 2 Start: CIVIL MAJOR

First Level	Semester 2	NMCY1001 Academic and Professional Numeracy	ENGR1401 Professional Skills	ENGR1201 Electronics (4.5 units)	Elective
	Semester 1	MATH1701 Algebra and Functions	ENGR1711 Engineering Design	PHYS1701 Physics for the Modern World	Major topic EASC1101 Earth and Environmental Sciences
Second Level	Semester 2	MATH1121 Mathematics 1A	ENGR1722 Engineering Materials and Systems	Major topic ENGR2822 Civil Engineering Design	Major Option topic
	Semester 1	MATH1122 Mathematics 1B	PHYS1101 Fundamental Physics 1	ENGR1721 Engineering Programming	Major topic GIST1001 Geospatial Information Systems
Third Level	Semester 2	ENGR3100 Engineering Science Project	ENGR9742 Systems Engineering	ENGR2711 Engineering Mathematics	Major topic ENGR2832 Engineering Geology and Geomechanics
	Semester 1	Elective	Major topic ENGR2741 Mechanics and Structures	Major topic ENGR2751 Fluid Mechanics	Major Option topic

Semester 1 Start: ELECTRICAL AND ELECTRONIC MAJOR

First Level	Semester 1	NMCY1001 Academic and Professional Numeracy	ENGR1711 Engineering Design	PHYS1701 Physics for the Modern World	ENGR1721 Engineering Programming
	Semester 2	MATH1701 Algebra and Functions	ENGR1401 Professional Skills	ENGR1201 Electronics (4.5 units)	Elective
Second Level	Semester 1	MATH1121 Mathematics 1A	PHYS1101 Fundamental Physics 1	Major Topic COMP2711 Computer Programming 2	Elective
	Semester 2	MATH1122 Mathematics 1B	ENGR1722 Engineering Materials and Systems	Major topic ENGR2712 Automation and Industrial Control	Major topic ENGR2772 Sensors and Actuators
Third Level	Semester 1	ENGR2711 Engineering Mathematics	Major topic ENGR2731 Electronic Circuits	Major Option topic	Major Option topic
	Semester 2	ENGR9742 Systems Engineering	ENGR3100 Engineering Science Project	Major topic ENGR2722 Signals and Systems	Major topic ENGR2702 Electrical Circuits and Machines

Semester 2 Start: ELECTRICAL AND ELECTRONIC MAJOR

First Level	Semester 2	NMCY1001 Academic and Professional Numeracy	ENGR1401 Professional Skills	ENGR1201 Electronics (4.5 units)	Elective
	Semester 1	MATH1701 Algebra and Functions	ENGR1711 Engineering Design	PHYS1701 Physics for the Modern World	ENGR1721 Engineering Programming
Second Level	Semester 2	MATH1121 Mathematics 1A	ENGR1722 Engineering Materials and Systems	Major topic ENGR2712 Automation and Industrial Control	Major topic ENGR2772 Sensors and Actuators
	Semester 1	MATH1122 Mathematics 1B	PHYS1101 Fundamental Physics 1	Elective	Major Option topic COMP2711 Computer Programming 2
Third Level	Semester 2	ENGR3100 Engineering Science Project	ENGR9742 Systems Engineering	Major topic ENGR2702 Electrical Circuits and Machines	Major topic ENGR2722 Signals and Systems
	Semester 1	ENGR2711 Engineering Mathematics	Major topic ENGR2731 Electronic Circuits	Major Option topic	Major Option topic

Semester 1 Start: MECHANICAL MAJOR

First Level	Semester 1	NMCY1001 Academic and Professional Numeracy	ENGR1711 Engineering Design	PHYS1701 Physics for the Modern World	Elective
	Semester 2	MATH1701 Algebra and Functions	ENGR1401 Professional Skills	ENGR1201 Electronics (4.5 units)	Elective
Second Level	Semester 1	MATH1121 Mathematics 1A	PHYS1101 Fundamental Physics 1	ENGR1721 Engineering Programming	Major topic ENGR2781 Mechanical Design Project
	NS1	ENGR2703 Mechanical Practice Certificate			
	Semester 2	MATH1122 Mathematics 1B	ENGR1722 Engineering Materials and Systems	Major topic ENGR2771 Dynamics	Major option topic
Third Level	Semester 1	ENGR2711 Engineering Mathematics	Major topic ENGR2741 Mechanics and Structures	Major topic ENGR2751 Fluid Mechanics	Major Option topic
	Semester 2	ENGR9742 Systems Engineering	ENGR3100 Engineering Science Project	Major topic ENGR2722 Signals and Systems	Major Option topic

Semester 2 Start: MECHANICAL MAJOR

First Level	Semester 2	NMCY1001 Academic and Professional Numeracy	ENGR1401 Professional Skills	ENGR1201 Electronics (4.5 units)	Elective
	Semester 1	MATH1701 Mathematics Fundamentals A	ENGR1711 Engineering Design	PHYS1701 Physics for the Modern World	Elective
Second Level	Semester 2	MATH1121 Mathematics 1A	ENGR1722 Engineering Materials and Systems	Cant do any major topics here due to pre req	Cant do any major topics here due to pre req
	NS1	ENGR2703 Mechanical Practice Certificate			
	Semester 1	MATH1122 Mathematics 1B	PHYS1101 Fundamental Physics 1	ENGR1721 Engineering Programming	Major topic ENGR2781 Mechanical Design Project
Third Level	Semester 2	ENGR3100 Engineering Science Project	ENGR9742 Systems Engineering	Major topic ENGR2722 Signals and Systems	Major topic ENGR2771 Dynamics
	Semester 1	ENGR2711 Engineering Mathematics	Major topic ENGR2741 Mechanics and Structures	Major topic ENGR2751 Fluid Mechanics	Major Option topic ENGR2776, ENGR2752,
Fourth Level	Semester 1	Major option topic	Major option topic		

Key:

Core Topics	Compulsory topic
Major Topics	A topic from the Engineering major selected
Elective	Any topic offered by the University at the appropriate year level, provided entry and course requirements are met and that no more than 45 units of First Year topics are included in the 108-unit program.

Please note:

- This document is provided as a guide only. Students are responsible for ensuring that they have completed their study according to the official [Course Rule](#).
- Topic information for all topics, including pre-requisites can be found on the [Topic Page](#)
- General enrolment assistance is available via [Ask Flinders](#)
- For specific course advice e-mail: courseadvice.SE@flinders.edu.au