WESTERN SYDNEY
UNIVERSITY

Sydney City Campus

Bachelor of Engineering (Honours)
New Student Advising Guide
Sydney City Campus Trimester 1 2026

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Bachelor of Engineering (Honours)

2026 New Student Advising Guide

This Advising Guide has been specifically created for new students enrolled in a Bachelor of Engineering (Honours) in Trimester 1 2026 at Western Sydney University, Sydney City Campus to help them successfully plan out their subjects for 2026.

This guide provides students with details of the Subjects they will need to study to complete their Program. Each key program (Civil, Mechanical, and Electrical) is divided into 3 sections;

1. **Program structure:** subjects divided into categories (e.g. Core, Major and Elective).
2. **Subjects per Trimester 2026:** subjects available each trimester in 2026.
3. **Recommended sequence:** advice on what subjects to enrol into each term in 2026.

Study load options

Fulltime study:	Students should select 3 subjects per Trimester (International students are required to study a full-time load)
Part-time study:	Students should select 1-2 subjects per Trimester
Accelerated study:	Students should select 4 subjects per Trimester*

Subject prerequisites and assumed knowledge

Students should check the online handbook entry for more Subject information including prerequisites, subject levels and assumed knowledge.

Transfer Credit

Students who have received Transfer Credit for previous study should make sure they take into account which subjects they have been granted credit for, before selecting their subjects to study at Sydney City Campus. Students with Advanced Standing (or Transfer Credit) who have questions about which subjects to select can also contact Engineering Program Convenors, email engineering@city.westernsydney.edu.au for personalised course advice.

For more assistance you can also make an appointment at Sydney City Campus reception to meet with a Student Adviser or via their online booking system https://calendly.com/student-services-teams Alternatively, you can contact them at studentservices@city.westernsydney.edu.au

For electives, students can use the online handbook to search for other undergraduate subjects available at the Sydney City Campus for each trimester.

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Program Structure

Qualification for this award requires the successful completion of 320 credit points (a subject is 10cp) made up of the following Core, Major, Elective and Minor subjects.

Core Subjects (80 credit points)

MATH 1016	Mathematics for Engineers 1 (see note below)
ELEC 1006	Engineering Computing
ENGR 1011	Engineering Physics
ENGR 1024	Introduction to Engineering Practice
ENGR 1018	Fundamentals of Mechanics
PROC 1008	Introduction to Materials Engineering
ELEC 1003	Electrical Fundamentals
MATH 1019	Mathematics for Engineers 2

Note: All students undertaking the Bachelor of Engineering (Honours) are required to enrol in **MATH 1021 Mathematics for Engineers Preliminary** and can choose to undertake a readiness test at the beginning of their study. The readiness test will be conducted at the beginning of the first Trimester of enrolment and the result will be used to determine whether a student will remain in MATH 1021 Mathematics for Engineers Preliminary or be transferred by the School to MATH 1016 Mathematics for Engineers 1. For students that complete MATH 1021 Mathematics for Engineers Preliminary, this subject will replace an elective subject in the Program.

The following pages show the Program structures for each of the Majors offered at Sydney City Campus.

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Civil Engineering Major

Civil Engineering Major subjects (200 credit points)

CIVL 1001 Surveying for Engineers
MECH 2003 Mechanics of Materials
CIVL 2002 Environmental Engineering
CIVL 2003 Fluid Mechanics
CIVL 2007 Introduction to Structural Engineering
CIVL 2012 Soil Mechanics
ENGR 2016 Pavement Materials and Design
CIVL 3011 Hydraulics
CIVL 3014 Structural Analysis
CIVL 4017 Surface Water Hydrology
CIVL 3002 Concrete Structures (UG)
CIVL 3012 Steel Structures
CIVL 3007 Engineering Geomechanics
ENGR 3020 Numerical Methods in Engineering
BLDG 4008 Digital Construction
ENGR 4035 Smart and Liveable Cities
ENGR 4041 Final Year Project 1 (UG Engineering)
ENGR 4042 Final Year Project 2 (UG Engineering)
ENGR 3017 Industrial Experience (Engineering) (zero (0) credit point Subject)*

Elective/ Minor subjects (40 credit points)

Four (4) elective Subjects or Four (4) Minor subjects

Note: Electives must be Level 2 or higher (An exception applies for students completing MATH 1021 Mathematics for Engineers Preliminary. This subject will then count as one of the elective subjects)

* Students are advised to enrol in Industrial Experience (ENGR3017) subject every session (from their third session onwards) until they complete the internship.

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Civil subjects on offer each term in 2026

Term 1	Term 2	Term 3
MATH 1021 Mathematics for Engineers Preliminary	MATH 1021 Mathematics for Engineers Preliminary	MATH 1021 Mathematics for Engineers Preliminary
MATH 1016 Mathematics for Engineers 1	MATH 1016 Mathematics for Engineers 1	MATH 1016 Mathematics for Engineers 1
PROC 1008 Introduction to Materials Engineering	ELEC 1006 Engineering Computing	ENGR 1011 Engineering Physics
ENGR 1018 Fundamentals of Mechanics	ENGR 1011 Engineering Physics	PROC 1008 Introduction to Materials Engineering
ELEC 1003 Electrical Fundamentals	ENGR 1024 Introduction to Engineering Practice	ENGR 1018 Fundamentals of Mechanics
MATH 1019 Mathematics for Engineers 2	MATH 1019 Mathematics for Engineers 2	ELEC 1003 Electrical Fundamentals
MECH 2003 Mechanics of Materials	MECH 2003 Mechanics of Materials	MATH 1019 Mathematics for Engineers 2
ENGR 2016 Pavement Materials and Design	CIVL 2003 Fluid Mechanics	CIVL 1001 Surveying for Engineers
CIVL 2007 Introduction to Structural Engineering	CIVL 2012 Soil Mechanics	MECH 2003 Mechanics of Materials
CIVL 3011 Hydraulics	CIVL 3014 Structural Analysis	CIVL 2003 Fluid Mechanics
CIVL 3014 Structural Analysis	CIVL 4017 Surface Water Hydrology	CIVL 2007 Introduction to Structural Engineering
CIVL 3007 Engineering Geomechanics	BLDG 4008 Digital Construction	CIVL 2002 Environmental Engineering
ENGR 3020 Numerical Methods in Engineering	CIVL 4011 Waste Management	ENGR 3020 Numerical Methods in Engineering
ENGR 4035 Smart and Liveable Cities	CIVL 3018 Hydrogeology	CIVL 3012 Steel Structures
CIVL 4009 Timber Structures	ENGR 4041 Final Year Project 1 (UG Engineering)	CIVL 3002 Concrete Structures (UG)
CIVL 4001 Applied Mechanics	ENGR 4042 Final Year Project 2 (UG Engineering)	ENGR 4041 Final Year Project 1 (UG Engineering)
ENGR 4041 Final Year Project 1 (UG Engineering)	ENGR 3017 Industrial Experience (Engineering)	ENGR 4042 Final Year Project 2 (UG Engineering)
ENGR 4042 Final Year Project 2 (UG Engineering)		ENGR 3017 Industrial Experience (Engineering)
ENGR 3017 Industrial Experience (Engineering)		

The delivery mode is on campus face-to-face unless otherwise stated.

The subjects on offer in the above plan may be subject to change.

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Recommended subjects for New Civil Engineering students in Trimester 1, 2 and 3, 2026

Trimester 1

*MATH 1021 or MATH 1016	*Mathematics for Engineers Preliminary or Mathematics for Engineers 1
PROC 1008	Introduction to Materials Engineering
ENGR 1018	Fundamentals of Mechanics

If a student wants to accelerate the program, they may enrol in the 4th subject as below:

ELEC 1003	Electrical Fundamentals

*** Students first enrol into MATH1021 and will receive information about the Maths Readiness Test from announcements on the subject's vUWS site closer to the beginning of the term (more information on page 3 of this document).**

Trimester 2

MATH 1016 or MATH 1019	Mathematics for Engineers 1 or Mathematics for Engineers 2
MECH2003	Mechanics of Materials
ENGR 1011	Engineering Physics

If a student wants to accelerate the program, they may enrol in the 4th subject as below:

ENGR 1024	Introduction to Engineering Practice

Trimester 3

CIVL 1001	Surveying for Engineers
CIVL2007	Introduction to Structural Engineering
CIVL 2003	Fluid Mechanics

If a student wants to accelerate the program, they may enrol in the 4th subject as below:

	Elective Subject (Level 2 or higher)

Student may also consider taking the following subject if not already completed:

MATH 1019	Mathematics for Engineers 2

For more tailored advice, please contact the Program Convenor for your major.

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Mechanical Engineering Major

Mechanical Engineering Major subjects (200 credit points)

MECH 2001 Kinematics and Kinetics of Machines

MECH 2003 Mechanics of Materials

CIVL 2003 Fluid Mechanics

ENGR 2035 Modern Digital Design and Development

MECH 3004 Dynamics of Mechanical Systems

ENGR 2001 Automated Manufacturing

MECH 3008 Thermodynamics and Heat Transfer

MECH 3002 Advanced Mechanics of Materials

MECH 3005 Mechanical Design

MECH 3001 Advanced Dynamics

PROC 2003 Materials Selection and Design

MECH 3007 Thermal and Fluid Engineering

MECH 3006 Mechatronic Design

MECH 4001 Computational Fluid Dynamics

MECH 4004 Robotics

MECH 4002 Computer Aided Engineering

ENGR 4041 Final Year Project 1 (UG Engineering)

ENGR 4042 Final Year Project 2 (UG Engineering)

ENGR 3017 Industrial Experience (Engineering) (zero (0) credit point Subject)*

Elective/ Minor subjects (40 credit points)

Four (4) elective Subjects or Four (4) Minor subjects

Note: Electives must be Level 2 or higher (An exception applies for students completing MATH 1021 Mathematics for Engineers Preliminary. This subject will then count as one of the elective subjects)

* Students are advised to enrol in Industrial Experience (ENGR3017) subject every session (from their session 3 onwards) until they complete the internship.

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Mechanical subjects on offer each term in 2026

Term 1	Term 2	Term 3
MATH 1021 Mathematics for Engineers Preliminary	MATH 1021 Mathematics for Engineers Preliminary	MATH 1021 Mathematics for Engineers Preliminary
MATH 1016 Mathematics for Engineers 1	MATH 1016 Mathematics for Engineers 1	MATH 1016 Mathematics for Engineers 1
MATH 1019 Mathematics for Engineers 2	MATH 1019 Mathematics for Engineers 2	MATH 1019 Mathematics for Engineers 2
ENGR 1018 Fundamentals of Mechanics	ELEC 1006 Engineering Computing	ENGR 1018 Fundamentals of Mechanics
PROC 1008 Introduction to Materials Engineering	ENGR 1011 Engineering Physics	ENGR 1011 Engineering Physics
ELEC 1003 Electrical Fundamentals	ENGR 1024 Introduction to Engineering Practice	ELEC 1003 Electrical Fundamentals
MECH 3004 Dynamics of Mechanical Systems	MECH 2003 Mechanics of Materials	MECH 3008 Thermodynamics and Heat Transfer
ENGR 2001 Automated Manufacturing	CIVL 2003 Fluid Mechanics	CIVL 2003 Fluid Mechanics
MECH 2001 Kinematics and Kinetics of Machines	ENGR 2035 Modern Digital Design and Development	MECH 2003 Mechanics of Materials
MECH 2003 Mechanics of Materials	MECH 3005 Mechanical Design	MECH 4002 Computer Aided Engineering
MECH 3008 Thermodynamics and Heat Transfer	MECH 3001 Advanced Dynamics	MECH 3006 Mechatronic Design
MECH 3002 Advanced Mechanics of Materials	PROC 2003 Materials Selection and Design	MECH 2001 Kinematics and Kinetics of Machines
MECH 3007 Thermal and Fluid Engineering	MECH 4001 Computational Fluid Dynamics	MECH 4004 Robotics
ENGR 3004 Biomedical Signals and Data Analysis	MECH 4003 Mobile Robotics	ENGR 4041 Final Year Project 1 (UG Engineering)
ENGR 4041 Final Year Project 1 (UG Engineering)	ENGR 2024 Design Graphics: Communication for Manufacture	ENGR 4042 Final Year Project 2 (UG Engineering)
ENGR 4042 Final Year Project 2 (UG Engineering)	ENGR 2025 Design Graphics: Engineering Documentation	ENGR 3017 Industrial Experience (Engineering)
ENGR 3017 Industrial Experience (Engineering)	ENGR 4041 Final Year Project 1 (UG Engineering)	
	ENGR 4042 Final Year Project 2 (UG Engineering)	
	ENGR 3017 Industrial Experience (Engineering)	

The delivery mode is on campus face-to-face unless otherwise stated.

The subjects on offer in the above plan may be subject to change.

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Recommended subjects for New Mechanical Engineering students in Trimester 1, 2 and 3, 2026

Trimester 1

*MATH 1021 or MATH 1016	*Mathematics for Engineers Preliminary or Mathematics for Engineers 1
PROC 1008	Introduction to Materials Engineering
ENGR 1018	Fundamentals of Mechanics

If a student wants to accelerate the program, they may enrol in the 4th subject as below:

ELEC 1003	Electrical Fundamentals

*** Students first enrol into MATH1021 and will receive information about the Maths Readiness Test from announcements on the subject's vUWS site closer to the beginning of the term (more information on page 3 of this document).**

Trimester 2

MATH 1016 or MATH 1019	Mathematics for Engineers 1 or Mathematics for Engineers 2
ENGR 1024	Introduction to Engineering Practice
ENGR 1011	Engineering Physics

If a student wants to accelerate the program, they may enrol in the 4th subject as below:

ELEC 1006	Engineering Computing

Trimester 3

MECH3008	Thermodynamics and Heat Transfer
MECH 2003	Mechanics of Materials
CIVL 2003	Fluid Mechanics

If a student wants to accelerate the program, they may enrol in the 4th subject as below:

MECH 2001	Kinematics and Kinetics of Machines

Student may also consider taking the following subject if not already completed:

MATH 1019	Mathematics for Engineers 2

For more tailored advice, please contact the Program Convenor for your major.

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Electrical Engineering Major

Electrical Engineering Major subjects (200 credit points)

ELEC 2001 Circuit Theory
ELEC 2004 Electronics
ELEC 2011 Signals and Systems
ELEC 1001 Digital Systems 1
ELEC 2009 Microprocessor Systems
ELEC 2006 Engineering Electromagnetics
ELEC 3011 Power and Machines
ENGR 3006 Control Systems
ELEC 3001 Communication Systems
ELEC 3006 Electrical Machines 1
ELEC 2007 Engineering Visualisation
ELEC 3002 Data Communications
ELEC 3003 Digital Signal Processing
ELEC 3004 Digital Systems 2
ELEC 4002 Power Electronics
ELEC 4009 Instrumentation and Measurement
ENGR 4041 Final Year Project 1 (UG Engineering)
ENGR 4042 Final Year Project 2 (UG Engineering)
ENGR 3017 Industrial Experience (Engineering) (zero credit point Subject)*

Elective/ Minor subjects (40 credit points)

Four (4) elective Subjects or Four (4) Minor subjects

Note: Electives must be Level 2 or higher (An exception applies for students completing MATH 1021 Mathematics for Engineers Preliminary. This subject will then count as one of the elective subjects)

* Students are advised to enrol in Industrial Experience (ENGR3017) subject every session (from their session 3 onwards) until they complete the internship.

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Electrical subjects on offer each term in 2026

Term 1	Term 2	Term 3
MATH 1021 Mathematics for Engineers Preliminary	MATH 1021 Mathematics for Engineers Preliminary	MATH 1021 Mathematics for Engineers Preliminary
MATH 1016 Mathematics for Engineers 1	MATH 1016 Mathematics for Engineers 1	MATH 1016 Mathematics for Engineers 1
MATH 1019 Mathematics for Engineers 2	MATH 1019 Mathematics for Engineers 2	MATH 1019 Mathematics for Engineers 2
ENGR 1018 Fundamentals of Mechanics	ELEC 1006 Engineering Computing	ENGR 1018 Fundamentals of Mechanics
PROC 1008 Introduction to Materials Engineering	ENGR 1011 Engineering Physics	ENGR 1011 Engineering Physics
ELEC 1003 Electrical Fundamentals	ENGR 1024 Introduction to Engineering Practice	ELEC 1003 Electrical Fundamentals
ELEC 2009 Microprocessor Systems	ELEC 1001 Digital Systems 1	PROC 1008 Introduction to Materials Engineering
ELEC 2006 Engineering Electromagnetics	ELEC 2004 Electronics	ELEC 1001 Digital Systems 1
ELEC 3003 Digital Signal Processing	ELEC 2001 Circuit Theory	ELEC 2001 Circuit Theory
ELEC 3011 Power and Machines	ELEC 2011 Signals and Systems	ELEC 2011 Signals and Systems
ENGR 3006 Control Systems	ELEC 3001 Communication Systems	ELEC 2007 Engineering Visualization
ELEC 4009 Instrumentation and Measurements	ELEC 3006 Electrical Machines 1	ELEC 3002 Data Communications
ENGR 3004 Biomedical Signals and Data Analysis	ENGR 4041 Final Year Project 1 (UG Engineering)	ELEC 3004 Digital Systems 2
ELEC 3009 Power Systems	ENGR 4042 Final Year Project 2 (UG Engineering)	ELEC 3011 Power and Machines
ELEC 4008 Electrical Drives	ENGR 3017 Industrial Experience (Engineering)	ELEC 4002 Power Electronics
ENGR 4041 Final Year Project 1 (UG Engineering)		ENGR 4041 Final Year Project 1 (UG Engineering)
ENGR 4042 Final Year Project 2 (UG Engineering)		ENGR 4042 Final Year Project 2 (UG Engineering)
ENGR 3017 Industrial Experience (Engineering)		ENGR 3017 Industrial Experience (Engineering)

The delivery mode is on campus face-to-face unless otherwise stated.

The subjects on offer in the above plan may be subject to change.

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Recommended subjects for New Electrical Engineering students in Trimester 1, 2 and 3, 2026

Trimester 1

*MATH 1021 or MATH 1016	*Mathematics for Engineers Preliminary or Mathematics for Engineers 1
ELEC 1003	Electrical Fundamentals
ENGR 1018	Fundamentals of Mechanics

If a student wants to accelerate the program, they may enrol in the 4th subject as below:

PROC 1008	Introduction to Materials Engineering

*** Students first enrol into MATH1021 and will receive information about the Maths Readiness Test from announcements on the subject's vUWS site closer to the beginning of the term (more information on page 3 of this document).**

Trimester 2

MATH 1016 or MATH 1019	Mathematics for Engineers 1 or Mathematics for Engineers 2
ELEC 1006	Engineering Computing
ELEC 1001	Digital Systems 1

If a student wants to accelerate the program, they may enrol in the 4th subject as below:

ENGR 1011	Engineering Physics

Trimester 3

ELEC 2001	Circuit Theory
ELEC 2011	Signals and Systems

And

ELEC 3004	Digital Systems 2

Or ENGR1011 if not completed in previous term

ENGR 1011	Engineering Physics
MATH 1019	Mathematics for Engineers 2

If a student wants to accelerate the program, they may enrol in the 4th subject as below:

	Elective (Level 2 or higher)

For more tailored advice, please contact the Program Convenor for your major.