# S466 BACHELOR OF ENGINEERING (INDUSTRY) (HONOURS) FACULTY OF SCIENCE, ENGINEERING AND BUILT ENVIRONMENT ENVIRONMENTAL AND SUSTAINABILITY ENGINEERING MAJOR SEQUENCE

# FOR STUDENTS COMMENCING TRIMESTER 1 2025

Last updated 04/10/2024

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When you first enrol via StudentConnect and go through the enrolment steps, you may be able to simply confirm any units that are pre-populated for you. You can also add any that you need to do, as part of your first year's enrolment – by using the information on this map and in the Handbook.

You must also complete the following compulsory zero (O) credit point units: <u>SEJO10 Introduction to Safety and Project Oriented Learning</u> (O credit points) AND <u>DAIOO1 Academic Integrity and Respect at Deakin</u> (O credit points) AND <u>SLEO10 Laboratory and Fieldwork Safety Induction Program</u> (O credit points) AND <u>STPO10 Career Tools for Employability</u> (O credit points)

YEAR 1	Trimester 1		
Year: 2025	Trimester 2		
	Trimester 3		

YEAR	Trimester 1		
Year: 2026	Trimester 2		
	Trimester 3		

YEAR	Trimester 1		
Year: 2027	Trimester 2		
	Trimester 3		

YEAR	Trimester 1		
<b>44</b> Year: 2028	Trimester 2		
	Trimester 3		

YEAR	Trimester 1		
Year: 2029	Trimester 2		
	Trimester 3		

It is recommended students undertake SEL798 and SEL799 in consecutive trimesters. It is recommended students undertake SEJ441 and SEJ446 in consecutive trimesters

\*Students must have successfully completed STPO10 Career Tools for Employability (O-credit point unit) before commencing SEL798 Engineering Industry Experience A

+ Students enrolled in Online mode for these units are required to attend campus mode conducted activities during the corresponding Intensive Activities in a trimester. Attendance at campus mode activities is linked to assessment requirements within the Engineering programs, failure to attend will result in not meeting the hurdle requirement of the respective assessment. Thus, a fail grade shall be awarded for the respective affected unit(s) for that particular trimester.

# S466 COURSE RULES

- Must pass 38 credit points for course
- Must pass ALL units in {DAI001, STP010, SEJ010}
- Must pass 6 credit points in {SEL798, SEL799}
- Must pass 1 unit set(s) in {Civil Engineering (MJ-S000092), Electrical and Renewable Energy Engineering (MJ-S000093), Mechanical Engineering (MJ-S000094), Mechatronics Engineering (MI-S000095), Environmental and Sustainability Engineering (MI-S000096)}
- Must have completed 1 unit sets in {CR-S000016}

# FOR USE ONLY WHEN UNDERTAKING A CONSULTATION WITH A STUDENT ADVISER:

Student ID:		Name:			
Deakin email:			Preferred contact no:		
Year commenced: Period commenced:		eCOE (if applicable):	Campus:	Mode:	
Student adviser:				Date:	

# Notes

# **GENERAL INFORMATION**

This course map is a guide only. You must also ensure you meet the course rules and structure as set out in the official University Handbook of the year you commenced your course. This course map has been created to be used electronically.

Not all units are available in all study periods or mode of delivery.

- Full time study is typically three to four units (or credit points) each study period.
- Part time study is typically one to two units (or credit points) each study period part time study will extend the duration of your studies.
- Trimester 3 is typically an optional study period unless it's your first study period and/or a compulsory study period for your course.

Unit options can be found in the 'Advanced Unit Search' in the most current year's University Handbook.

If you have applied for or received credit for units as recognition of prior learning (RPL), it may alter the units you need to study.

# S466 BACHELOR OF ENGINEERING (INDUSTRY) (HONOURS) CORE UNITS UNIT SETS

BENG(HONS)(IND) CORE (S466) (CR-S000016) DAIOO1 Academic Integrity Module SEB101 Engineering Physics SEJ010 Introduction to Safety and Project Oriented Learning

SEJ441 Engineering Project A
SEJ446 Engineering Project B
SEP105 Introduction to Programming for Engineers
SEP291 Engineering Modelling
SEP701 Continuing Professional Development
SET111 Sustainable Design
SIT194 Introduction to Mathematical Modelling
SIT199 Applied Algebra and Statistics
STP010 Career Tools for Employability
STP050 Academic Integrity

Completion Rule

- Must pass all unit(s) in {SEB101, SEJ010, SEJ441, SEJ446, SEP105, SEP291, SEP701, SET111, SIT194, SIT199, STP010}
- Must pass 2 unit(s) in {DAI001, STP050}

# S466 BACHELOR OF ENGINEERING (INDUSTRY) (HONOURS) MAJOR UNIT SETS

CIVIL ENGINEERING (MJ-S000092)
SEJ103 Materials Engineering Project
SEJ104 Engineering in Society
SEJ201 Structural Design
SEJ202 Field Investigation
SEM216 Stress and Failure Analysis
SEM218 Fluid Mechanics
SEN770 Infrastructure Engineering
SEV254 Road and Pavement Engineering
SEV300 Reinforced Concrete and Steel Structures
SEV301 Water Engineering Design

# SEV320 Theory of Structures SEV322 Hydrology and Hydraulics SEV362 Geotechnical Engineering SEV402 Traffic and Transport Engineering

**Completion Rule** 

• Must pass all unit(s) in {SEJ103, SEJ104, SEJ201, SEJ202, SEM216, SEM218, SEN770, SEV254, SEV300, SEV301, SEV320, SEV322, SEV362, SEV402}

ELECTRICAL AND RENEWABLE ENERGY ENGINEERING (MJ-S000093)
SEE210 Power Engineering Design
SEE212 Power Electronics
SEE216 Analogue and Digital Electronics
SEE217 Renewable Energy Generation Systems Design
SEE308 Electrical Machines and Drives
SEE312 Data Communication
SEE314 Energy Efficiency, Management and Market Analysis
SEE332 Transmission and Distribution System Design
SEE406 Power System Analysis
SEE416 Electrical Systems Protection
SEE419 Microgrid Design, Integration and Management
SEJ102 Electrical Systems Engineering Project
SEJ104 Engineering in Society
SEJ302 Control Systems Engineering

Completion Rule

• Must pass all unit(s) in {SEE210, SEE212, SEE216, SEE217, SEE308, SEE312, SEE314, SEE332, SEE406, SEE416, SEE419, SEJ102, SEJ104, SEJ302}

ENVIRONMENTAL AND SUSTAINABILITY ENGINEERING (MJ-S000096)
SEJ103 Materials Engineering Project
SEJ104 Engineering in Society
SEJ202 Field Investigation
SEM218 Fluid Mechanics
SEN770 Infrastructure Engineering
SEV201 Environmental Health Engineering
SEV301 Water Engineering Design
SEV311 Air Pollution and Control
SEV322 Hydrology and Hydraulics
SEV331 Waste Engineering and Transformation Systems
SEV401 Integrated Catchment Systems
SLEO10 Laboratory and Fieldwork Safety Induction Program
SLE207 Environmental Planning and Impact Assessment

### SLE240 Quantitative Marine Science

# SLE245 Marine Geographic Information Systems

Completion Rule

• Must pass all unit(s) in {SEJ103, SEJ104, SEJ202, SEM218, SEN770, SEV201, SEV301, SEV311, SEV322, SEV331, SEV401, SLE010, SLE207, SLE240, SLE245}

MECHANICAL ENGINEERING (MJ-S000094)
SED344 Product Modelling and Design
SEJ103 Materials Engineering Project
SEJ104 Engineering in Society
SEJ201 Structural Design
SEJ302 Control Systems Engineering
SEM200 Machine Design
SEM202 Thermodynamics
SEM216 Stress and Failure Analysis
SEM218 Fluid Mechanics
SEM302 Advanced Stress Analysis
SEM310 Thermo-Fluid Systems
SEM313 Manufacturing
SEM327 Dynamics of Machines
SEM400 Computational Fluid Dynamics

Completion Rule

• Must pass all unit(s) in {SED344, SEJ103, SEJ104, SEJ201, SEJ302, SEM200, SEM202, SEM216, SEM218, SEM302, SEM310, SEM313, SEM327, SEM400}

# MECHATRONICS ENGINEERING (MJ-S000095)

SEE212 Power Electronics

SEE216 Analogue and Digital Electronics

SEE222 Embedded Systems Design
SEE307 Systems and Signals
SEE312 Data Communication
SEJ102 Electrical Systems Engineering Project
SEJ104 Engineering in Society
SEJ302 Control Systems Engineering
SEM200 Machine Design

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# SEM327 Dynamics of Machines

SEN771 Intelligent Autonomous Robots

SER204 Electromechanical Systems

SER300 Mechatronic Design

SER400 Virtual and Augmented Interfaces

Completion Rule

• Must pass all unit(s) in {SEE212, SEE216, SEE222, SEE307, SEE312, SEJ102, SEJ104, SEJ302, SEM200, SEM327, SEN771, SER204, SER300, SER400}