# S466 BACHELOR OF ENGINEERING (INDUSTRY) (HONOURS)

# FACULTY OF SCIENCE, ENGINEERING AND BUILT ENVIRONMENT





#### FOR STUDENTS COMMENCING TRIMESTER 1 2024

Last updated 27/06/2024

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 Module</u> (O credit points)

AND STP010 Career Tools for Employability (O credit points)

YEAR <b>1</b>	Trimester 1		
Year: 2024	Trimester 2		
	Trimester 3		
YEAR 2	Trimester 1		
Year: 2025	Trimester 2		
	Trimester 3		
YEAR	Trimester 1		
<b>3</b> Year: 2026	Trimester 2		
	Trimester 3		
YEAR	Trimester 1		
4 Year: 2027	Trimester 2		
	Trimester 3		
YEAR	Trimester 1		
<b>5</b> Year: 2028	Trimester 2		
.s recommended students undertake SEJ4	Trimester 3		

#This unit has an assumed strong knowledge of Chemistry. Students without VCE Chemistry 3 and 4 or an equivalent are strongly encouraged to undertake SLE133 Chemistry in Our World in Trimester 1 (prior to SLE155 Chemistry for the Professional Sciences). Molecular science is integral to modern environmental engineering. For this reason, knowledge of chemistry is important for all students in the Bachelor of Environmental Engineering (Honours) course. Students who have a weak or no knowledge of year 12 Chemistry should study SLE133. Students who have a strong knowledge of Chemistry may proceed directly to SLE155, and choose an elective later in the degree.

<sup>\*</sup>Students must have successfully completed STP010 Career Tools for Employability (0-credit point unit) before commencing SEL703 Professional Practice. SEL703 Professional Practice is available in trimester 1, trimester 2 and trimester 3.

<sup>+</sup> Students enrolled in cloud 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.

<sup>^</sup> Students who have not completed VCE Chemistry 3 and 4 or an equivalent should choose to replace this elective with SLE133 prior to enrolling in SLE155.

#### **S466 COURSE RULES**

- Must pass 38 credit points for course
- Must pass 14 credit points at levels {2, 3}
- Must pass 6 credit points at level {3}
- Must pass 1 unit set(s) in {BENG(HONS)(IND) CORE (S466) (CR-S000016)}
- Must pass 1 unit set(s) in {Civil Engineering (M-S000092), Electrical and Electronics Engineering (M-S000093), Mechanical Engineering (M-S000094), Mechatronics Engineering (M-S000095), Environmental Engineering (M-S000096)}

#### 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 <u>University Handbook</u> 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.

Please seek advice from a Student Adviser in StudentCentral if you have any queries or need help understanding your course structure and unit options.

# 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
SEL703 Professional Practice
SEL799 Industry Experience
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
STPO10 Career Tools for Employability

- Must pass all unit(s) in {SEB101, SEJ010, SEJ441, SEJ446, SEP105, SEP291, SEP701, SET111, SIT194, SIT199, STP010}
- Must pass 1 unit(s) in {DAI001}
- Must pass 6 credit points in {SEL703, SEL799}

# 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 ELECTRONICS ENGINEERING (MJ-S000093)
SEE210 Power Engineering Design
SEE212 Power Electronics
SEE213 Distributed Generation System
SEE216 Analogue and Digital Electronics
SEE222 Embedded Systems Design
SEE307 Systems and Signals
SEE308 Electrical Machines and Drives
SEE312 Data Communication
SEE332 Transmission and Distribution System Design
SEE 406 Power System Analysis
SEE716 Electrical Systems Protection
SEJ102 Electrical Systems Engineering Project
SEJ104 Engineering in Society
SEJ302 Control Systems Engineering

• Must pass all unit(s) in {SEE210, SEE212, SEE213, SEE216, SEE222, SEE307, SEE308, SEE312, SEE332, SEE406, SEE716, SEJ102, SEJ104, SEJ302}

ENVIRONMENTAL ENGINEERING (MJ-S000096)
SEJ202 Field Investigation
SEM218 Fluid Mechanics
SEN770 Infrastructure Engineering
SEV101 Global Environmental Systems
SEV201 Environmental Health Engineering
SEV301 Water Engineering Design
SEV311 Air and Noise Pollution
SEV322 Hydrology and Hydraulics
SEV331 Waste Engineering and Transformation Systems
SEV401 Integrated Catchment Systems
SLE010 Laboratory and Fieldwork Safety Induction Program
SLE155 Chemistry for the Professional Sciences
SLE207 Environmental Planning and Impact Assessment

SLE240 Quantitative Marine Science	
SLE245 Marine Geographic Information Systems	
SLE342 Risks to Healthy Environments	

• Must pass all unit(s) in {SEJ202, SEM218, SEN770, SEV101, SEV201, SEV301, SEV311, SEV322, SEV331, SEV401, SLE010, SLE155, SLE207, SLE240, SLE245, SLE342}

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
SEM327 Dynamics of Machines
SEN771 Intelligent Autonomous Robots
SER204 Electromechanical Systems
SER300 Mechatronic Design
SER400 Virtual and Augmented Interfaces

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