

DIPLOMA IN ENGINEERING

TRANSITION ARRANGEMENTS FOR STUDENTS WHO COMMENCED PRIOR TO 2024

The Diploma in Engineering has a revised program structure for 2024 onwards. If you commenced the program prior to 2024, the courses you need to complete may have changed. Please refer to the information below and contact PALS-SLO@newcastle.edu.au if you have any questions.

The following courses have been discontinued and were offered for the last time in 2023

FNMT1002 Foundational Studies in Mathematics

FNMT1110 Mathematics for Engineering, Science and Technology 1

FNPS1001 Engineering Physics 1

FNPS1002 Engineering Physics 2

If you have already completed all of the above courses, these will continue to count towards your program and you will not need to study the replacement courses listed below. If you have completed either none or only some of these courses, you will need to complete replacement course/s as in Table 1 below.

Table 1

Courses not completed	Replacement courses
<i>If you have not completed both:</i> FNMT1002 Foundational Studies in Mathematics AND FNMT1110 Mathematics for Engineering, Science and Technology 1	<i>Then complete both:</i> FNMT1003 Foundational Studies in Mathematics 1 AND FNMT1004 Foundational Studies in Mathematics 2
<i>If you have completed FNMT1002 Foundational Studies in Mathematics but have not completed:</i> FNMT1110 Mathematics for Engineering, Science and Technology 1	<i>Then complete:</i> One course from the list on Table 2, chosen based on which Bachelor of Engineering program you plan to enrol in*
<i>If you have not completed both:</i> FNPS1001 Engineering Physics 1 AND FNPS1002 Engineering Physics 2	<i>Then complete both:</i> FNPS1003 Engineering Physics AND One course from the list on Table 2, chosen based on which Bachelor of Engineering program you plan to enrol in*
<i>If you have completed FNPS1001 Engineering Physics 1 but have not completed:</i> FNPS1002 Engineering Physics 2	<i>Then complete:</i> One course from the list on Table 2, chosen based on which Bachelor of Engineering program you plan to enrol in*

* Some of the programs in Table 2 list FNEG1004 and/or FNEG1005. You cannot count one of these courses as both your 10 unit directed course and a replacement course. For example, if you plan to go onto the Bachelor of Aerospace Engineering (Honours), you can count FNEG1004 as your directed course and FNEG1005 as your replacement course for FNMT1110. But you can't count FNEG1004 as both your directed course and replacement course because then you would only be completing 70 units in total.

Table 2

You cannot double count FNEG1004 or FNEG1005 as both your directed course and a replacement course. For example, if you need to complete a replacement course and you are planning on enrolling in the Bachelor of Civil Engineering (Honours), you can count FNEG1004 as your replacement course but you will need to complete FNEG1005 as your directed course.

If you have successfully completed both FNPS1001 and FNPS1002, you cannot enrol in PHYS1205 or PHYS1210.

Bachelor of	Courses
Aerospace Systems Engineering (Honours)	ELEC1710 Digital and Computer Electronics 1 FNEG1004 Fundamentals of Engineering Mechanics FNEG1005 Introduction to Electrical Engineering MECH1750 Engineering Materials 1
Chemical Engineering (Honours)	CHEE1000 Process Engineering Principles CHEM1010 Introductory Chemistry I PHYS1210 Advanced Physics I
Civil Engineering (Honours)	CIVL1200 Earth Systems FNEG1004 Fundamentals of Engineering Mechanics PHYS1205 Fundamentals of Engineering Physics SURV1200 Introduction to Surveying
Computer Systems Engineering (Honours)	ELEC1710 Digital and Computer Electronics 1 FNEG1005 Introduction to Electrical Engineering SENG1110 Object Oriented Programming
Electrical and Electronic Engineering (Honours)	ELEC1710 Digital and Computer Electronics 1 FNEG1005 Introduction to Electrical Engineering PHYS1210 Advanced Physics I
Environmental Engineering (Honours)	CHEM1010 Introductory Chemistry I CIVL1200 Earth Systems SURV1200 Introduction to Surveying
Mechanical Engineering (Honours)	FNEG1004 Fundamentals of Engineering Mechanics FNEG1005 Introduction to Electrical Engineering MECH1750 Engineering Materials 1
Mechatronics Engineering (Honours)	ELEC1710 Digital and Computer Electronics 1 FNEG1004 Fundamentals of Engineering Mechanics FNEG1005 Introduction to Electrical Engineering MECH1750 Engineering Materials 1
Medical Engineering (Honours)	Medical Devices Major ELEC1710 Digital and Computer Electronics 1 FNEG1005 Introduction to Electrical Engineering HUBS1420 Professional and Communication Skills in Biomedicine PHYS1210 Advanced Physics I Medical Biomechanics Major ~ Only complete a maximum of one of these courses FNEG1004 ~ Fundamentals of Engineering Mechanics FNEG1005 ~ Introduction to Electrical Engineering FNEG1110 Introduction to Mechanical Engineering Design HUBS1420 Professional and Communication Skills in Biomedicine MECH1750 Engineering Materials 1 PHYS1210 ~ Advanced Physics I
Renewable Energy Engineering (Honours)	CHEE1000 Process Engineering Principles CHEM1010 Introductory Chemistry I FNEG1005 Introduction to Electrical Engineering PHYS1210 Advanced Physics I
Software Engineering (Honours)	COMP1010 Computing Fundamentals SENG1050 Web Technologies SENG1110 Object Oriented Programming SENG1120 Data Structures
Surveying (Honours)	FNEG1004 Fundamentals of Engineering Mechanics PHYS1205 Fundamentals of Engineering Physics SENG1120 Data Structures SURV1200 Introduction to Surveying

Table 3

2023 Program Structure	2024 Program Structure
Core Courses (70 units) <i>Complete the following courses</i>	Core Courses (40 units) <i>Complete the following courses</i>
ENGG1500 Introduction to Professional Engineering	ENGG1500 Introduction to Professional Engineering
FNEG1003 Engineering Computations and Procedural Programming	FNMT1003 Foundational Studies in Mathematics 1
FNEG1110 Introduction to Mechanical Engineering Design	FNMT1004 Foundational Studies in Mathematics 2
FNMT1002 Foundational Studies in Mathematics	FNPS1003 Engineering Physics
FNMT1110 Mathematics for Engineering, Science and Technology 1	
FNPS1001 Engineering Physics 1	
FNPS1002 Engineering Physics 2	
Directed Course List (10 units) <i>Complete one of the following courses</i>	Directed Course List (40 units) <i>Complete four of the following courses</i>
FNEG1004 Fundamentals of Engineering Mechanics	CHEE1000 Process Engineering Principles
FNEG1005 Introduction to Electrical Engineering	CHEM1010 Introductory Chemistry I
	CIVL1200 Earth Systems
	COMP1010 Computing Fundamentals
	ELEC1710 Digital and Computer Electronics 1
	FNEG1003 Engineering Computations and Procedural Programming
	FNEG1004 Fundamentals of Engineering Mechanics
	FNEG1005 Introduction to Electrical Engineering
	FNEG1110 Introduction to Mechanical Engineering Design
	HUBS1420 Professional and Communication Skills in Biomedicine
	MECH1750 Engineering Materials 1
	PHYS1205 Fundamentals of Engineering Physics
	PHYS1210 Advanced Physics I
	SENG1050 Web Technologies
	SENG1110 Object Oriented Programming
	SENG1120 Data Structures
	SURV1200 Introduction to Surveying

FREQUENTLY ASKED QUESTIONS

I have completed FNMT1002, FNMT1110, FNPS1001, & FNPS1002. Do I need to complete any replacement courses?

No, you do not need to complete any replacement courses. FNMT1002, FNMT1110, FNPS1001, and FNPS1002 will still count towards your program and you should follow the 2023 program structure in Table 3.

I commenced the program in 2024, does any of this apply to me?

No, this information is only for students who commenced the program in 2023 or earlier.

I haven't completed FNMT1002, what course do I need to complete instead?

You will need to complete FNMT1003 Foundational Studies in Mathematics 1 and FNMT1004 Foundational Studies in Mathematics 2 instead of FNMT1002 and FNMT1110.

I haven't completed FNMT1110, what course do I need to complete instead?

If you have already completed FNMT1002, you will need to complete one course from the list on Table 2, chosen based on which Bachelor of Engineering program you plan to enrol in instead of FNMT1110.

If you haven't completed either FNMT1002 or FNMT1110, you will need to complete FNMT1003 Foundational Studies in Mathematics 1 and FNMT1004 Foundational Studies in Mathematics 2 instead of FNMT1002 and FNMT1110.

I haven't completed FNPS1001, what course do I need to complete instead?

You will need to complete FNPS1003 Engineering Physics and one course from the list on Table 2, chosen based on which Bachelor of Engineering program you plan to enrol in instead of FNPS1001 and FNPS1002.

I haven't completed FNPS1002, what course do I need to complete instead?

If you have already completed FNPS1002, you will need to complete one course from the list on Table 2, chosen based on which Bachelor of Engineering program you plan to enrol in instead of FNPS1002.

If you haven't completed either FNPS1001 or FNPS1002, you will need to complete FNPS1003 Engineering Physics and one course from the list on Table 2, chosen based on which Bachelor of Engineering program you plan to enrol in instead of FNPS1001 and FNPS1002.

Can I choose to follow the 2024 program structure even though I commenced prior to 2024?

This will depend on how many/which courses you have completed. Please contact ProgramAdvice@newcastle.edu.au for advice before you enrol.

I'm not sure which courses I should complete, who should I contact for advice?

If you have any questions about which courses to complete, please contact ProgramAdvice@newcastle.edu.au.