

# Process Control & Automation 5

(Level 5)

Leading to the New Zealand Certificate in Industrial Measurement and Control (Level 5)  
with strands in Process Control and Process Automation

<b>Wintec code:</b>	TC1705	<b>MoE:</b>	NZ2253
<b>Level:</b>	5	<b>Credits:</b>	75 – 80
<b>Owner:</b>	Centre for Trades	<b>Effective Date:</b>	January 2024

These regulations should be read in conjunction with the Institute’s Academic Regulations.

## 1. Transition Arrangements

- 1.1 There is an underpinning principle in the application of these transition regulations, that no student will be disadvantaged by these transition arrangements;
- 1.2 This programme is replacing the TE1004 - National Certificate in Industrial Measurement and Control (Level 5) programme;
- 1.3 All students enrolling for the first time in semester 1, 2017 must enrol into the New Zealand Certificate in Process Control and Automation (L5), in either the Process Control strand or the Process Automation strand;
- 1.4 Students enrolled on the TE1004 programme in 2016 or earlier:
  - a) who **have** completed all requirements of the first year of study may enrol in the second year of that programme to complete it by the end of the 2017 academic year, or may transition directly to this new programme;
  - b) who **have not** completed all requirements of the first year of study must complete them before the end of semester 1, 2017, and must then transition to this new programme.

## 2. Admission and Entry

### 2.1 Automation Strand Academic Admission

- a) Candidates will be required to have previously completed the New Zealand Certificate in Industrial Measurement and Control (Theory) (Level 4) [Ref: 2252]; **or**
- b) The National Certificate in Industrial Measurement and Control (Level 4); **or**
- c) A relevant New Zealand certificate in electrical theory and practice at level 4; **or**
- d) Can demonstrate experience and skills equivalent to the above.
- e) Alternatively, it is recommended that candidates who have training and experience in mechanical aspects of industrial control and/or automation processes may be considered for admission.

### 2.2 Process Control Strand Academic Admission

- a) Candidates will be required to have previously completed the New Zealand Certificate in Industrial Measurement and Control (Theory) (Level 4) [Ref: 2252]; **or**
- b) The National Certificate in Industrial Measurement and Control (Level 4); **or**
- c) Can demonstrate experience and skills equivalent to the above.

- d) Alternatively, it is recommended that candidates who have training and experience in mechanical aspects of industrial control and/or automation processes may be considered for admission.

### 2.3 Selection Criteria

- a) Candidates may be required for an interview to determine suitability for the programme where meeting of the criteria cannot be clearly established. Should places in the programme become limited, selection will be based on:
  - Academic history and prior relevant qualifications gained;
  - Relevant recent and current work experience.

### 2.4 English Language Requirements

Candidates who have English as a second language are required to have an International English Language Test System (IELTS) score in the academic band of 6.0, with no individual band score lower than 5.5; or equivalent.

## 3. Transfer of Credit

- 3.1 100% transfer of credit is available for this programme (both formal transfer of credit and recognition of prior learning).

## 4. Programme Requirements

- 4.1 Every candidate for the Process Control & Automation 5 programme shall to the satisfaction of the Academic Board follow a programme of study for a period of normally not less than four semesters of part-time study;
- 4.2 Each candidate's programme for the New Zealand Certificate in Industrial Measurement and Control (Level 5) Process Control strand, will comprise all common core modules as listed in Section 7, Schedule A and the modules in Schedule B (Process Control strand), totalling a minimum of **75** credits;
- 4.3 Each candidate's programme for the New Zealand Certificate in Industrial Measurement and Control (Level 5) Process Automation strand, will comprise all common core modules as listed in Section 7, Schedule A and the modules in Schedule C (Process Automation strand), totalling a minimum of **80** credits;
- 4.4 Candidates may apply to enrol for an additional strand qualification, which will be considered on a case-by-case basis; these applications must be submitted for consideration within 5 years of the candidate completing their original strand qualification.

## 5. Completion of the Programme

- 5.1 A candidate may take up to five years to complete this programme, unless an extension is granted by special permission of the Centre Director, or designated equivalent.

## 6. Award of the Qualification

- 6.1 Candidates who successfully complete the requirements of this programme in accordance with clause 4.2 of these regulations will be eligible to be awarded the New Zealand Certificate in Industrial Measurement and Control (Level 5), Process Control strand;
- 6.2 Candidates who successfully complete the requirements of this programme in accordance with clause 4.3 of these regulations will be eligible to be awarded the New Zealand Certificate in Industrial Measurement and Control (Level 5), Process Automation strand;
- 6.3 Candidates who successfully complete the requirements of this programme in accordance with clause 4.4 of these regulations will be eligible to be awarded the New

Zealand Certificate in Industrial Measurement and Control (Level 5), in the additional strand.

## 7. Schedule of Modules

*Note: no value in the pre/co-requisite columns means there are no pre/co-requisites for that module.*

### Schedule A: Common core modules

Module Code	Module Name	Level	Credits	Pre-Requisites	Co-Requisites	Assessment Standard
IMCT501	Safety & Compliance for Process Control & Automation Systems	5	10			19241 v2
IMCT502	Control System Hardware & Interfaces	5	15			25886 v1
IMCT503	Equipment Specification & Selection	5	15			25885 v1
IMCT504	Functional Descriptions & Specifications	5	5			28118 v1

### Schedule B: Process Control strand

Module Code	Module Name	Level	Credits	Pre-Requisites	Co-Requisites	Assessment Standard
IMCT505	Process Theory & Applications	5	15			25887 v1
IMCT506	Process Control & Applications	5	5		IMCT505	25888 v1
IMCT507	Process Control Investigation	5	10	IMCT501, IMCT506		19233 v2

### Schedule C: Process Automation strand

Module Code	Module Name	Level	Credits	Pre-Requisites	Co-Requisites	Assessment Standard
IMCT410	Use CAD Tools to Document an Automation Project	4	5			16974 v4
IMCT508	PLCs & Elementary Programming	5	15			22727 v1
IMCT601	Process Automation	6	15	IMCT501 IMCT508		22744 v2