

# PROGRAMME REGULATIONS

## Programme Schedule

### National Certificate in Motor Industry (Automotive Electrical Engineering) (Level 4)

To be read in conjunction with Unitec [Generic Certificate Regulations](#).

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#### 1. Programme Schedule

These regulations apply to the National Certificate in Motor Industry (Automotive Electrical Engineering) (NCertMI (AEE4)) Level 4, 244 credits.

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#### 2. Programme Specific Admission

##### 2.1 Specific Admission

To be admitted to this programme, applicants must also meet the entry requirements set out in this schedule:

- a. be employed in the automotive industry.

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#### 3. Selection Criteria

When the number of eligible applicants for admission exceeds the number of places available, the following selection criteria will be applied:

- a. have demonstrated the greatest work experience;
- b. have demonstrated scholastic success.

Applicants who meet the maximum number of listed criteria will be the preferred candidates.

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#### 4. Selection Process

- a. Selection will be made by a subcommittee of the Programme Committee set up for the purpose and with the delegated authority of that committee to offer places to applicants.

- b. Applicants may be required to attend an interview.

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## 5. Requirements for the Award of the Qualification

### 5.1 National Certificate in Motor Industry (Automotive Electrical Engineering)

To be awarded the National Certificate in Motor Industry (Automotive Electrical Engineering) (Level 4, 244 credits), students must have satisfied the following requirements:

- a. the successful completion of all compulsory practical and theory units and a minimum of 30 credits from elective courses listed in 5.2; and
- b. although students may be awarded credit through credit recognition and/or APL (as specified in clauses 6 and 7 below), a minimum of fifty per cent of the credits required for the award of the certificate must be achieved in courses offered by Unitec; and
- c. credit gained for a standard may be used only once to meet the requirements of this qualification; and
- d. unit standards and achievement standards that are equivalent in outcome are mutually exclusive for the purpose of award. The table of mutually exclusive standards is provided on the New Zealand Qualifications Authority (NZQA) website: <http://www.nzqa.govt.nz/qualifications-standards/standards/standards-exclusion-list>; and
- e. reviewed standards that continue to recognise the same overall outcome are registered as new versions and retain their identification number (ID). Any version of a standard with the same ID may be used to meet qualification requirements that list the ID and/or that specify the past or current classification of the standard.

**Table 1: Credits for National Certificate in Motor Industry (AEE) level 4**

	Automotive Electrical Engineering Strand	
	Compulsory	Elective
Level 1 credits	3	
Level 2 credits	65	
Level 3 credits	68	
Level 4 credits	78	
Minimum totals	214	30
Qualification totals	244	

## 5.2 Course details

**Table 2: Compulsory courses for National Certificate in Motor Industry (AEE) level 4**

Course number	Course Title	Level	Credit
TTEC US56	Attend to customer enquiries face-to-face and on the telephone	1	2
TTEC U15368	Pick up and deliver a customer's vehicle, machine, or equipment	1	1
TTEC US57	Provide customer service in given situations	2	2
TTEC US227	Carry out general engineering tasks to repair and make automotive components	2	4
TTEC US228	Select and use hand tools and workshop equipment for an automotive application	2	5
TTEC US229	Identify the functions and general locations of motor vehicle systems and components	2	5
TTEC US231	Explain the operation of two and four stroke petrol and diesel engines	2	4
TTEC US232	Test an automotive electrical circuit	2	8
TTEC US233	Service an automotive battery	2	2
TTEC US234	Describe automotive starting and charging systems and their operation	2	4
TTEC US235	Describe automotive ignition systems and their operation	2	3
TTEC US236	Service automotive cooling systems	2	4
TTEC US237	Describe automotive brake, steering, and suspension systems, and their operation	2	3
TTEC US239	Demonstrate knowledge of automotive manual transmissions	2	2
TTEC US240	Demonstrate knowledge of petrol fuel systems	2	3
TTEC US241	Describe the operation of a diesel fuel system and perform minor servicing tasks	2	3
TTEC US243	Carry out basic tuning on a four stroke petrol engine	2	4
TTEC US245	Select and apply lubricants and sealants for automotive and related industry applications	2	2
TTEC US247	Prepare a vehicle and/or machine for use and shut-down after use	2	2
TTEC US392	Maintain automotive stock and plant security	2	2
TTEC US924	Clean automotive components and maintain cleaning equipment	2	1
TTEC U16113	Demonstrate knowledge of safe working practices in an automotive workshop	2	2
TTEC US888	Overhaul a starter motor from a car and/or light commercial vehicle	3	3
TTEC US891	Test, diagnose, and rectify faults in a contact breaker (CB) ignition system on an engine	3	2
TTEC US895	Test, diagnose, and rectify faults in a conventional type electronic ignition system on an engine	3	4
TTEC US897	Diagnose and repair faults in starting and charging systems on cars or light commercial vehicles	3	5
TTEC US898	Identify an automotive wiring diagram and translate information to a motor vehicle circuit	3	3

Course number	Course Title	Level	Credit
TTEC US899	Carry out automotive wiring repairs and test circuits for serviceability	3	3
TTEC US902	Test a vehicle heating and ventilation system	3	3
TTEC US909	Install, repair, and replace electrical accessories in vehicles	3	2
TTEC US915	Service multiple battery installations on heavy commercial vehicles, machines, or units	3	2
TTEC U15373	Demonstrate knowledge of automotive air conditioning	3	4
TTEC U16114	Demonstrate knowledge of vehicle security systems and their installation	3	4
TTEC US2326	Inspect and test an ignition distributor, and rectify faults	3	2
TTEC US2629	Demonstrate knowledge of, and work in proximity to, motor vehicle air bag mechanisms	3	2
TTEC US3387	Respond to vehicle breakdown	3	1
TTEC US3400	Check a four stroke petrol engine for condition using hand held test equipment	3	4
TTEC US5456	Explain the operation of automotive alternators and alternator controls	3	4
TTEC US5459	Explain the operation of automotive electronic fuel injection systems	3	4
TTEC US5461	Explain the operation and testing of automotive emission controls	3	4
TTEC US5464	Explain automotive electrical and electronic applications	3	12
TTEC US887	Diagnose and repair automotive wiper system faults	4	2
TTEC US906	Diagnose and rectify automotive climate control system faults	4	4
TTEC US910	Diagnose and rectify faults in automotive instruments and gauges	4	5
TTEC US934	Cost a job for an automotive repair or service	4	3
TTEC US946	Book in work for an automotive business	4	4
TTEC US968	Estimate the cost of an automotive repair	4	4
TTEC U15384	Demonstrate knowledge of electronic diesel management	4	4
TTEC US2348	Diagnose and rectify faults in vehicle and machine body electronics	4	8
TTEC US3399	Demonstrate knowledge of vehicle lighting and rectify lighting circuit faults	4	5
TTEC US5433	Describe the application of electricity and electronics for marine use	4	8
TTEC US5457	Test and repair automotive alternator circuits	4	4
TTEC US5458	Explain the operation of heavy duty starter motors	4	4
TTEC US5460	Test and repair automotive electronic fuel injection systems	4	4
TTEC US5462	Explain the operation of automotive electronic ignition systems	4	5
TTEC US5463	Explain the operation and repair requirements of automotive electronic control systems	4	8
TTEC US8182	Diagnose and rectify faults in automotive electronically controlled systems	4	6

**Table 3: Elective courses for National Certificate in Motor Industry (AEE) level 4**

*A minimum of 30 credits are required.*

Course number	Course Title	Level	Credit
TTEC US230	Repair and make with oxy-acetylene	2	3
TTEC US242	Change and bleed hydraulics	2	2
TTEC US385	Sell automotive products	3	4
TTEC US904	Diagnose and overhaul generator systems	3	5
TTEC US890	Diagnose / repair motorcycle start / charge	4	4
TTEC US905	Overhaul starter from heavy commercial	4	5
TTEC US5436	Diagnose and repair faults in marine starting system	4	4
TTEC U15370	Knowledge of business responsibilities	4	4

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## 6. Credit Recognition and Exemptions

- The Programme Committee may award a student credit recognition subject to the provisions in the Generic Certificate Regulations and subject to clause 5.1.b above.
- The credit recognition must be specified, where there is direct equivalence of the learning outcomes of a completed unit and a unit in the certificate.

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## 7. Assessment of Prior Learning

Applications for recognition of prior learning should be made to the NZ Motor Industry Training Organisation ([http://www.mito.org.nz/files/RCC\\_Factsheet\\_\(V4\)\\_web.pdf](http://www.mito.org.nz/files/RCC_Factsheet_(V4)_web.pdf))

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## 8. Assessment

### 8.1 General

- Assessment is competency based.
- All assessment events must be passed in order to gain a pass for a course.

### 8.2 Calculation of course grades

- Course grades will be reported according to the following criteria:

**Table 4: Course Grades**

Grade	Status
P	Pass
NC	Not Yet Competent

- b. Students may also be awarded one of the following grades where appropriate:

**Table 5: Administrative Grades**

Grade	Meaning	Criteria
CR	Credit Recognition	The student has applied for and been awarded a credit recognition from another qualification
DEF	Deferred	The course result has been deferred
W	Withdrawn	If a student withdraws from a course after the 10% date of the course is completed and up to or at the 75% date of the course. No credits earned.
DNC	Did Not Complete	A student has either withdrawn after the 75% date of the course has been taught or not attempted a compulsory item of assessment within a course. No Credits earned.

### 8.3 Coursework

- The due dates for all summative assessment work will be notified in course information.
- Application for late submission of work must be made in writing to the Programme Leader no less than one week prior to the assessment due date.

### 8.4 Resits and resubmissions

- Students are entitled to resit or resubmit each failed assessment event up to two times. A stand down period of 5 days will apply.
- All resits and resubmissions will be carried out within two weeks from when the original assessment was returned, or results made available. In all cases, the original marked assignment will accompany resubmitted assignments. If resubmitted work is not accompanied by the original marked assignment, the resubmitted work will not be marked and the original grade will stand.
- The maximum grade for any resit/resubmission of assessment is 'P'. In all cases the grade achieved on resit/resubmission will be the grade used in calculating the overall unit grade.
- Students must notify the Programme Leader of their intent to undertake a resit or resubmission within 5 days of receiving their marked assessment.

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## 9. Transitional Arrangements

This qualification contains unit standards that replace earlier unit standards. For the purposes of this qualification, people who have gained credit for the expiring unit standards are exempt from the requirement to gain credit for the replacement unit standards, as per Section 5.2. For detail information, please see [Review Summaries](#) on the NZQA website.

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## 10. Commencement

These regulations came into force in Semester 1, 2016.