

PROGRAMME REGULATIONS

Programme Schedule

Certificate in Applied Technology

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

1. Regulations for the Certificate

These regulations apply to the Certificate in Applied Technology (CertAppTec) (Level 4, 120 credits) with endorsements in:

- Automotive Engineering
- Autotronics
- Audio-Visual Technician
- Boatbuilding
- Carpentry
- Electrical Engineering
- Electronics Engineering
- Furniture & Cabinetmaking
- Marine Engineering Systems
- Plumbing & Gasfitting
- Welding & Fabrication

2. Programme Specific Admission

2.1 Specific Admission

To be admitted to this programme, all applicants must meet the following requirements in addition to the requirements set out in the Certificate Generic Regulations:

- have 12 credits at NCEA Level 1 in Mathematics. This applies to the following endorsements: Carpentry, Furniture & Cabinetmaking, Plumbing & Gasfitting, Boatbuilding, Marine Engineering Systems, Automotive Engineering, Autotronics and Welding & Fabrication.

- have 10 credits at NCEA Level 2 in Mathematics. This applies to the following endorsements: Electrical Engineering, Electronics Engineering and Audio-Visual Technician.

A pre-entry diagnostic analysis may be requested to identify any extra support an applicant may require to enter the programme.

3. Selection Criteria

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

- academic history
- professional experience.

These criteria are not ranked in any order. Those applicants who can demonstrate the greatest success in respect to these criteria will be the preferred applicants.

4. Selection Process

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.

Applicants may be invited to attend an interview conducted by that subcommittee.

5. Requirements for the Award of the Qualification

5.1 Credits and courses

To be awarded the certificate students must have satisfied the following requirements:

- the successful completion of the required total of credits and courses specified in the regulations for the certificate, including the completion of all compulsory courses and any pre and co-requisites specified within 5 years of first enrolment;
- All students must enrol in a minimum of 45 credits in every calendar year from the date of first enrolment until the certificate is complete. No student may enrol in more than 75 credits in a semester.

5.2 Certificate in Applied Technology

To be awarded the Certificate in Applied Technology (Level 4, 120 credits), a student must successfully complete all courses listed in the table appropriate for his or her endorsement.

Automotive Engineering

Table 1: Courses for Certificate in Applied Technology (Automotive Engineering)

Compulsory courses are shown in **bold** text.

Elective courses are shown in *italics*.

Level	Course No.	Course Name	Credits	Restrictions
Level 4				
4	TTEC4841	<i>Automotive Electrical and Electronics</i>	15	TTEC3831 and TTEC4824
4	TTEC4842	<i>Automotive Engines</i>	15	TTEC4833
4	TTEC4843	<i>Fuels and Fuel Systems</i>	15	TTEC4833
4	TTEC4844	<i>Transmissions and Drivelines</i>	15	TTEC4832
4	TTEC4845	<i>Vehicle Braking Systems</i>	15	TTEC4832
4	TTEC4846	<i>Vehicle Steering and Stability</i>	30	TTEC4832
4	TTEC4849	<i>Business Practice and Vehicle Safety</i>	15	TTEC4832

Carpentry

Table 2: Courses for Certificate in Applied Technology (Carpentry)

Compulsory courses are shown in **bold** text.

Elective courses are shown in *italics*.

Level	Course No.	Course Name	Credits
Level 4			
4	BUIT4540	Carpentry Preliminaries 1A	15
4	BUIT4541	Carpentry Preliminaries 1B	15
4	BUIT4542	Carpentry Structures 1A	15
4	BUIT4543	Carpentry Structures 1B	30
4	BUIT4544	Carpentry Envelopment 1	30
4	BUIT4545	Carpentry Interior 1	15

Audio-Visual Technician

Table 3: Courses for Certificate in Applied Technology (Audio-Visual Technician)

Compulsory courses are shown in **bold** text.

Elective courses are shown in *italics*.

Level	Course No.	Course Name	Credits	Restrictions
Level 3				
3	ETEC3821	Electrical Fundamentals	15	
3	ETEC3825	AV Signal Principles	15	
3	ETEC3826	Computer Concepts	15	

Level 4				
4	ETEC4824	Analogue Electronics	15	ETEC3824
4	ETEC4825	Digital Electronics	15	
4	ETEC4826	Advanced Digital Electronics	15	
4	PASA4831	Theatre Systems & Technology	15	
4	PASA4832	Screen Technology Project	15	

Electronics Engineering

Table 4: Courses for Certificate in Applied Technology (Electronics Engineering)

Compulsory courses are shown in **bold** text.

Elective courses are shown in *italics*.

Level	Course No.	Course Name	Credits	Restrictions
Level 3				
3	ETEC3821	Electrical Fundamentals A	15	
3	ETEC3826	Computer Concepts	15	
Level 4				
4	ETEC4823	Signal Transmission Principles	15	
4	ETEC4824	Analogue Electronics	15	ETEC3824
4	ETEC4825	Digital Electronics	15	
4	ETEC4826	Advanced Digital Electronics	15	
4	ETEC4828	CAD and PCB Design	15	
4	ETEC4829	Programming	15	

Plumbing and Gasfitting

Table 5: Courses for Certificate in Applied Technology (Plumbing and Gasfitting)

Compulsory courses are shown in **bold** text.

Elective courses are shown in *italics*.

Level	Course No.	Course Name	Credits	Restrictions
2	BUIT2331	General Customer Service, Ethics & Pricing	15	APPT3000
2	BUIT2332	Generic Skills	15	BUIT4329
3	BUIT3333	Cold Water	15	BUIT4322
3	BUIT3334	Heating and Ventilation	15	BUIT4326
4	BUIT4335	Foul Water 1	15	BUIT4321, BUIT4324
4	BUIT4336	Gas	15	BUIT4327, BUIT4328
4	BUIT4337	Hot Water	15	BUIT4323
4	BUIT4338	Roofing and Sheetmetal	15	BUIT4329, BUIT3325

Welding and Fabrication

Table 6: Courses for Certificate in Applied Technology (Welding and Fabrication)

Compulsory courses are shown in **bold** text.

Elective courses are shown in *italics*.

Level	Course No.	Course Name	Credits	Prerequisites	Restrictions
Level 4					
4	TTEC4131	Engineering Mathematics, Materials & Metal Skills	15		TTEC4121
4	TTEC4132	Oxy-Welding, Brazing and Metal Cutting	15		TTEC4122
4	TTEC4133	Manual Metal ARC Welding	15		TTEC4123
4	TTEC4134	Metal Inert Gas Welding	15		TTEC4125/ TTEC4126
4	TTEC4135	Tungsten Inert Gas Welding	15		TTEC4127
4	TTEC4136	Low Hydrogen Metal Welding	15		TTEC4124
4	TTEC4137	Engineering Drawings & Integrated Projects	30		TTEC4128

Marine Engineering Systems

Table 7: Courses for Certificate in Applied Technology (Marine Engineering Systems)

Compulsory courses are shown in **bold** text.

Elective courses are shown in *italics*.

Level	Course No.	Course Name	Credits	Prerequisite	Restrictions
Level 4					
4	<i>TTEC4841</i>	<i>Automotive Electrical and Electronics</i>	15		<i>TTEC3831 TTEC4824</i>
4	<i>TTEC4842</i>	<i>Automotive Engines</i>	15		<i>TTEC4833</i>
4	<i>TTEC4843</i>	<i>Fuels and Fuel Systems</i>	15		<i>TTEC4833</i>
4	<i>TTEC4844</i>	<i>Transmissions and Drivelines</i>	15		<i>TTEC4832</i>
4	<i>TTEC4853</i>	<i>Pleasure Craft Mechanical Systems</i>	15		<i>TTEC4232 TTEC4237</i>
4	<i>TTEC4851</i>	<i>Marine Engines and Drivelines</i>	30		<i>TTEC4231 TTEC4233 TTEC4234 TTEC4235 TTEC4238 TTEC4239</i>
4	<i>TTEC4852</i>	<i>Marine Business Practice</i>	15		<i>TTEC4237</i>

Boatbuilding

Table 8: Courses for Certificate in Applied Technology (Boatbuilding)

Compulsory courses are shown in **bold** text.

Elective courses are shown in *italics*.

Level	Course No.	Course Name	Credits	Prerequisite	Restrictions
Level 3					
3	TTEC3000	Introduction to Health, Safety & Professional Development	15		APPT3000
3	TTEC3721	Introduction to Boatbuilding	15		TTEC4710
Level 4					
4	TTEC4721	Boat Construction	30		TTEC4711
4	TTEC4722	AutoCAD and Lofting	30		TTEC4712
4	TTEC4723	Composites	15		TTEC4713
4	TTEC4724	Small Craft Building	15		TTEC4714

Electrical Engineering

Table 9: Courses for Certificate in Applied Technology (Electrical Engineering)

Compulsory courses are shown in **bold** text.

Elective courses are shown in *italics*.

Level	Course No.	Course Name	Credits	Restrictions
Level 3				
3	ETEC3821	Electrical Fundamentals A	15	
Level 4				
4	ETEC4824	Analogue Electronics	15	EETEC3824
4	EETEC4927	Process Control	15	
4	EETEC4928	Electrical Fundamentals B	15	
4	EETEC4929	Electrical Machines	15	
4	EETEC4930	Wiring and Rules	15	
4	EETEC4931	Electricity Systems	15	
4	EETEC4825	Digital Electronics	15	

Furniture & Cabinetmaking

Table 10: Courses for Certificate in Applied Technology (Furniture & Cabinetmaking)

Compulsory courses are shown in **bold** text.

Elective courses are shown in *italics*.

Level	Course No.	Course Name	Credits	Prerequisite
Level 4 Compulsory				
3	BUIT3640	Woodwork Essentials 1	30	
4	BUIT4641	Woodwork Essentials 2	30	
4	BUIT4642	Project 1	30	
4	BUIT4643	Project 2	30	

Autotronics

Table 11: Courses for Certificate in Applied Technology (Autotronics)

Compulsory courses are shown in **bold** text.

Elective courses are shown in *italics*.

Level	Course No.	Course Name	Credits	Prerequisites	Restrictions
Level 4 Elective – 60 credits required					
4	TTEC4841	Automotive Electrical and Electronics	15		TTEC3831 TTEC4824
4	TTEC4842	Automotive Engines	15		TTEC4833
4	TTEC4843	Fuels and Fuel Systems	15		TTEC4833
4	TTEC4844	Transmissions and Drivelines	15		TTEC4832
4	TTEC4847	Vehicle Electrical and Electronics	15		TTEC3831 TTEC4824
4	TTEC4848	Vehicle Electronic Controls	30		TTEC4825 TTEC4826, TTEC4827
4	TTEC4849	Business Practice and Vehicle Safety	15		TTEC4832

MIT/Unitec Programme Harmonisation

Table 12: Courses for Certificate in Applied Technology (MIT/Unitec Programme Harmonisation)

Compulsory courses are shown in **bold** text.

Elective courses are shown in *italics*

Level	Course No.	Course Name	Credits	Prerequisites	Restrictions
Level 4 Elective – 60 credits required					
4	TTEC 4854	Automotive Fabrication and Engineering	45		
4	TTEC 4855	Automotive Engines Technology	15		
4	TTEC 4856	Race Car Preparation, Exhaust and Fuel Systems	15		
4	TTEC 4857	Drivelines and Brakes	15		
4	TTEC 4858	Electrical and Testing	15		
4	TTEC 4959	Emission Control and Air Conditioning	15		
4	TTEC 4861	Fuels and Engine Management Systems	15		
4	TTEC 4862	Steering and Suspension Systems	15		
4	TTEC 4863	Body Electronics	15		
4	TTEC 4864	Climate Control	15		
4	TTEC 4865	Starter and Alternators	15		
4	TTEC 4866	Vehicle Safety Restraint Systems	15		
4	TTEC 4867	Vehicle Electrical and Electronics Diagnosis and Repair	15		

6. Assessment of Prior Learning

Assessment of Prior Learning is available for all courses in the certificate.

7. Assessment

7.1 General

All assessment is achievement based.

7.2 Calculation of course grades

- a. Course grades will be determined by the mathematical aggregation of weighted marks using the following conversion.

Table 13: Course Grades

Grade	Percentage	Result
A+	90 – 100	Pass
A	85 – 89	Pass
A-	80 – 84	Pass
B+	75 – 79	Pass
B	70 – 74	Pass
B-	65 – 69	Pass
C+	60 – 64	Pass
C	55 – 59	Pass
C-	50 – 54	Pass
D	40 – 49	Fail
E	0 – 39	Fail

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

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.

7.3 Coursework

The due dates for all summative assessment work will be notified in course information. Applications for assessment extensions must be made in writing to the Course Coordinator at least 24 hours prior to the submission date.

7.4 Resits and resubmissions

- a. Students are entitled to resit or resubmit each assessment event once.
- b. All resits and resubmissions will be carried out in a specified time period from the time 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.

- c. The maximum grade for any resit/resubmission of assessment is 'C-'. In all cases the grade achieved on resit/resubmission will be the grade used in calculating the overall course grade.

8. Assessment

These regulations came into force in Semester 1, 2016.