New Zealand Certificate in Electrical Trade (Level 4) - General Electrical [4204]

The apprentice's handbook

Everything you need to know about your electrical apprenticeship



Let's get started

Hi there - it's great to have you on board!

Congratulations on becoming an apprentice. You're on your way to a great career in one of New Zealand's biggest trades.

This handbook has all the information you need to get started. You'll also find answers to frequently asked questions so you can get the most out of your apprenticeship.

Remember we're here to help, so if you have any further questions we'd love to hear from you.

Enjoy your apprenticeship!

Contact us

Have any questions? We've got you covered.

Call us:	0800 327 648 (0800 EARN IT)
	Mon–Thurs, 7am–6pm Fri 7am–5pm
Email:	support@earnlearn-tepukenga.ac.nz
Website:	earnlearn-tepukenga.ac.nz



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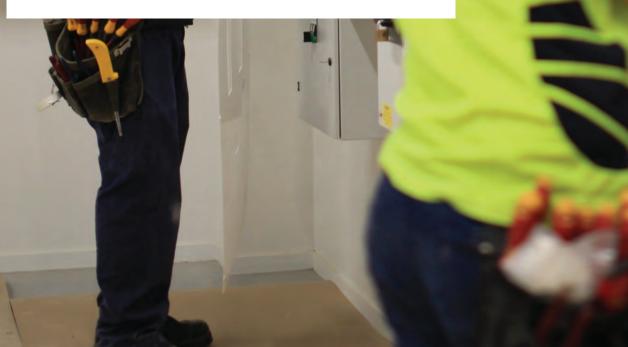
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Getting started

Your apprenticeship induction

If they haven't already, your EarnLearn Account Manager will be in touch with you or your employer to set up an induction meeting. They'll run you through the ins and outs of your apprenticeship, and answer any questions you may have. In the meantime, you'll find most of the information you need to know in this guide.

Your Account Manager

The role of your Account Manager is to support you through the process of completing your training. They don't teach you technical skills or assess your work. Their role is to:

- Confirm your training requirements.
- Contact you regularly throughout your training.
- Follow and update your progress.
- Connect you to useful resources, including literacy and numeracy support, advice, and counselling.

You can reach your Account Manager over the phone, via email, or during face-to-face visits. Ask them any questions you have, they're here to help.

Over the next few weeks, we'll be in touch with support resources to get you started. Please check your emails regularly and keep your phone handy.

My Portal and My eLearning

My Portal is an online portal where you and your employer can check your progress throughout your training. My eLearning is where you can access your Electrical Safety course, On-job assessments, and other resources that will help you during your apprenticeship. Your My Portal and My eLearning login information will be emailed to you when you register with EarnLearn. You need to reset your password first. Just follow the steps below:

- 1. Navigate to https://myportal.earnlearn.ac.nz/
- 2. Click on [reset password] and then [I need a code].

3. Follow the prompts to set up your new password. If you need help, call **0800 327 648 (0800 EARN IT)**

Once you have set up your password, you can access the portal anytime at

https://myportal.earnlearn.ac.nz/

There is a comprehensive guide to On-job assessments on My eLearning. Please take your time to read this and check in with your Account Manager if you have any questions.

Work your way through the site information and the 'preparing to study' section before starting the Electrical Safety course and On-job assessments.

Literacy & Numeracy Assessment

Everyone has different skill levels when it comes to reading, writing, and doing maths. We want to make sure you get the right support if you need it, especially when it comes to your exams. You'll be sent a link to complete an online learning needs assessment, so keep an eye out for this in your inbox.

What you need to get started

Your On-job assessments are all completed online on My eLearning. You will need access to a computer, laptop or mobile device in order to compete and submit these assessments.



Trainee Limited Certificate

Electrical apprentices require a license to carry out electrical work. This is called a Trainee Limited Certificate, or TLC. If you haven't already, start the process to get your license now.

- 1. Register with the Electrical Workers Registration Board (EWRB) at **ewrb.govt.nz**
- 2. Apply to the EWRB for a TLC.

You must have a current TLC throughout your apprenticeship.

In the first three months of your apprenticeship, you must complete the following unit standards to meet EWRB's TLC requirements. Your Account Manager will explain these in more detail when you first meet.

- 6401/6402 First Aid course
- 32605 Electrical Safety course
- 32607 Electrical Safety On-job Assessments -On-job 1 Health and Safety & On-job 2 Isolate Circuits

These unit standards need to be completed before you will have access to your On-job assessments in My eLearning.

First Aid course

You must complete a First Aid course through an EarnLearn contracted provider within three months of starting your apprenticeship to meet your TLC requirements. The cost of your first course is covered by EarnLearn, however you will need to pay for any re-sits or if a refresher course is required.

Visit **earnlearn.ac.nz/health-safety** to find out more and book your First Aid course.

Electrical Safety course and On-job assessments

The Electrical Safety course and Electrical Safety On-job assessments (On-job 1Health and Safety and On-job 2 Isolate Circuits) will prepare you for working on construction sites and around electricity. These are also a requirement of your TLC and need to be completed via My eLearning within three months of starting your apprenticeship.

Pre-trade Graduates

If you completed a pre-trade course prior to starting your apprenticeship, you are not required to complete the Electrical Safety course and First Aid course. You will still need to complete the Electrical Safety On-jobs (On-job 1 and On-job 2) within the first three months of your apprenticeship, as a requirement of your TLC.

How your apprenticeship works

You may be familiar with the NZQA unit standard system from school. Unit standards are small chunks of a bigger subject (in this case, Electrical Trade). Once you complete the required unit standards, you will be awarded a New Zealand Certificate. You can find a full programme overview in this handbook.

Learning structure

There are two main components to your training as an apprentice:

- On-job training On-job assessments are completed on My eLearning.
- Off-job training This is the electrical theory taught at an on-campus provider.

During your normal working day, you will learn the skills and knowledge only an electrician can teach you. Electrical theory will be taught when you attend Off-job training at a local on-campus provider. The two forms of learning are designed to be done side-by-side, so you complete your apprenticeship in around three and a half years. Keeping on top of your study and attending the Off-job training will help you finish on time.

Your apprenticeship is structured like this:

1st Year	6 Months				
On-job training and assessment					
Year 1 Off-job training Year 2 Off-job training Year 3 Off-job training					

When you successfully complete all the requirements of your apprenticeship, you'll be awarded the New Zealand Certificate in Electrical Trade (Level 4) - General Electrical. You keep this qualification for life and it's your ticket to becoming a registered and licenced electrician.

Pre-trade Graduates

If you have previously completed a pre-trade course, you will start your Off-job training in the middle of year two classes. While the pre-trade course reduces your Off-job training time, you will still need the rest of the time to learn all the practical skills and gain experience needed to achieve your On-job assessments.





On-job training and assessment

Most of your learning will happen on the job. Your supervisor will show you how to do things and explain why they are done that way. They will also make sure you follow safe working practices to keep yourself and others safe while working.

During your normal daily work, we recommend you keep a record of the jobs that you do in a work diary. This will help you to collect the evidence required for your On-job assessments.

If you work for a company specialising in certain types of work, they might not be able to give you all the practical experience you need. They may need to arrange for you to work with another company so you can get the broad range of practical experience needed to complete your apprenticeship. You can discuss this with your EarnLearn Account Manager.

There is a comprehensive guide to On-job assessments in My eLearning. If you still have questions, please have a chat to your Account Manager.

Who's involved?

There can be a number of people involved in this process:



Apprentice This is you, the person being assessed.



Supervisor This can be any registered and practicing electrician in your workplace who can confirm your skills and competency. This may be the same person as the Workplace Verifier.



Workplace Verifier This is the only person who can sign off the verification form.



Assessor This is the person who assesses the On-jobs once you have submitted the required documents.

What order should I do my On-jobs?

While On-job assessments can be done in any order, we suggest you progress through the assessments in the order below. This ensures you work through them in a timely manner, and you complete them at the same time as you learn the related theory at your Off-job provider. The On-job assessments make up partial unit standards.

The below On-job assessments are a requirement of your TLC and must be completed in the first three months of your apprenticeship.

- On-job 1 Health and Safety (TLC requirement)
- On-job 2 Isolate Circuits (TLC requirement)

You should aim to complete the remaining assessments as per below:

- Year one: On-job 3 14
- Year two: On-job 15 23
- Year three and four: On-job 24 31

Getting ready to be assessed



1. Read the assessments

There are a lot of skills to be assessed so you need to be familiar with the tasks to be completed. Your assessments are found under the On-job assessment tab on My eLearning.

First, read the trainee instructions for the On-job you want to be assessed on and see if you think you are ready.



2. Check in with your supervisor/Workplace Verifier

Next, ask your verifier what they think. It's okay if they say they don't think you're ready. They will give you feedback on where you need to improve, and you can ask for tips to get you up to speed.



3. If they think you're ready – start!

When you feel confident doing the tasks outlined in the assessment, you can start the process to complete and submit your assessment.

Completing your assessment

You can find a guide to completing and submitting your assessments on My eLearning.

Off-job training

Your Off-job is where you will learn electrical theory and complete your Off-job assessments. Off-job study is delivered by on-campus providers in various ways: online, night classes or day classes.

Depending on when you started and where you are located, you may have to wait for your local provider to start a class. Some only start at the beginning of the year, some have mid-year enrolments, and some will let you start at any time. When you register, we advise your provider of choice. They will then contact you with information such as course dates.

The content you will learn is broken down into individual modules, which group into unit standards. These are outlined in the Programme Overview.

Recommended resource: AS/NZS 3000: 2007 The Wiring Rules

This is a very important document that tells Electricians how to do their job correctly. You will need a copy of this throughout your studies, and sit your EWRB Electrical Exams. You can purchase a printed copy from Standards NZ, using your EWRB login, or talk to your on-campus provider.

Study time

Been a while since you studied? Here are some helpful tips to ensure you keep on top of your Off-job training and pass your exams.

Tip 1: There is a great guide to studying on the 'prepare to study' tab on My eLearning. It has some useful information on preparing for learning, as well as work.

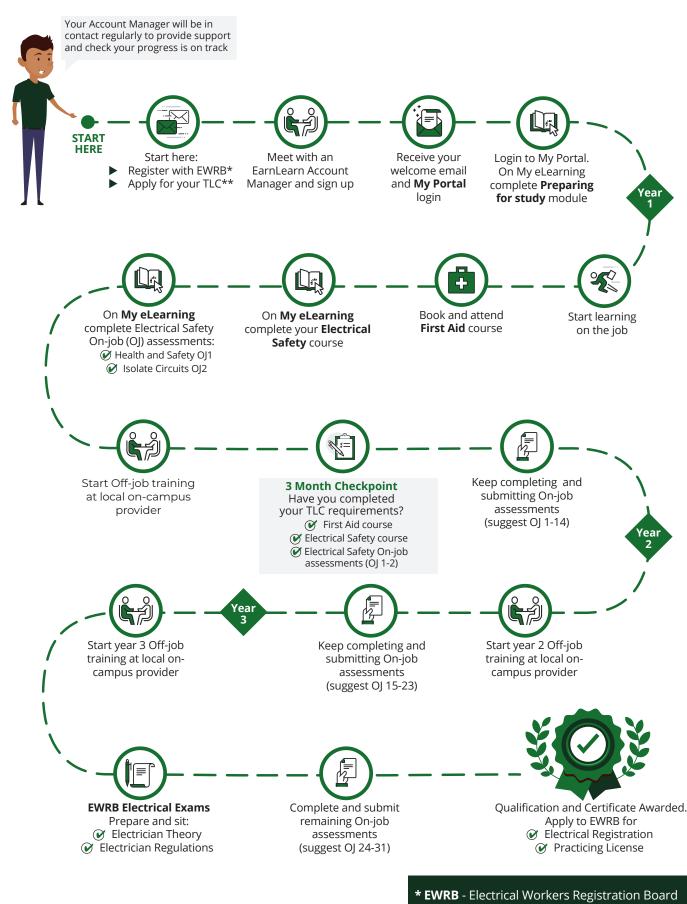
Tip 2: When classes start, the best thing you can do is have a positive attitude, be open-minded, get involved and ask questions.

Tip 3: Set aside time during the week to do additional study outside of class. The amount of time you need will depend on how well you are progressing through your study. Start with at least a couple of hours study a week and add more hours if required.

Tip 4: Don't miss classes. It can be hard to catch-up if you fall behind.



Apprentice Journey Map



** TLC - Trainee Limited Certificate

Programme overview

Your training programme is made up of On-job and Off-job assessments. It's a good idea to keep track of your progress throughout your apprenticeship to ensure you have completed all the required assessments.

When you successfully complete all the requirements of your apprenticeship, you will be awarded the New Zealand Certificate in Electrical Trade (Level 4) - General Electrical.

First 3 Months – TLC Requirements

First Aid/CPR (TLC) – Book via Contracted Provider			
Unit NumberUnit Standard NameLevelCredit			
6401*	Provide first aid	2	1
6402*	Provide basic life support	1	1

Electrical Safety Course (TLC) – Complete online			
Unit Number	Unit Standard Name	Level	Credit
32605*	Demonstrate knowledge for working safely in the electrical industry	3	6

Electrical Safety On-job assessments (TLC)			
Unit Number	Level	Credit	
32607*	Apply knowledge of working safely in the electrical industry	4	8
On-job 1	Health and Safety		
On-job 2	Isolate Circuits		

Key	
*	Unit Standard required for TLC
**	Practical or block course
***	EWRB Exam required

Year One – Off-job assessments

Unit Number	Unit Standard Name	Level	Credit
32606	Demonstrate knowledge of tools, fittings, and plans in the electrical industry	3	5
32609	Demonstrate knowledge of mathematical principles, conductors, and insulators	3	7
32610	Demonstrate knowledge of voltage, power and energy, and DC circuits	3	6
32611	Demonstrate knowledge of magnetism and AC generation	3	6
32612	Demonstrate knowledge of legislation, industry governance bodies, and AS/NZS3000 for the electrical industry	3	4
32613	Demonstrate knowledge of cords, cables, and cable installation	3	4
32614	Demonstrate knowledge of electrical faults, circuit protection, de-commissioning, and commissioning	3	6
32619	Demonstrate fundamental knowledge for working in electrical trades (Year 1 Capstone)	3	1
			39

Year Two – Off-job assessments

Unit Number	Unit Standard Name	Level	Credit
32620	Demonstrate knowledge of electrical plans, switching circuits, and lighting systems	3	5
32621	Demonstrate knowledge of wiring support systems and cable installation	3	5
32622	Demonstrate knowledge of the national supply grid, MEN system, and earthing	3	6
32623	Demonstrate knowledge of circuit protection and distribution board wiring	4	5
32624	Demonstrate knowledge of electrical installation testing, fault finding, and rectification of discovered faults	4	6
32625	Demonstrate knowledge of damp situations, SELV and PELV systems, and single-phase transformers	3	5
32626	Demonstrate knowledge of capacitors, inductors, and electronics in the electrical trade	3	5
32629	Demonstrate knowledge of electric motors and alternators	4	5
32632**	Design switching circuits and a PLC programme	4	4
29484	Demonstrate intermediate knowledge for working in electrical trades (Year 2 Capstone)	3	1
			47

Year Three – Off-job assessments

Unit Number	Unit Standard Name	Level	Credit
32638	Demonstrate knowledge of earthing systems and switchboards	4	6
32639	Demonstrate knowledge of cable selection, underground cable systems, and specialised cables	4	4
32640	Demonstrate knowledge of power factor, three-phase AC power, and transformer safety and performance	4	6
32641	Demonstrate knowledge of electric motors and motor faults	4	3
32642	Demonstrate knowledge of de-commissioning, commissioning, and verification of electrical installations	4	6
32643	Demonstrate knowledge of alternative energy systems	4	3
32644	Demonstrate knowledge of hazardous areas, construction and demolition sites, and special electrical installations	4	5
32649**	Install electric motors and diagnose and repair faults	4	5
21766***	Demonstrate knowledge of theory for registration of electricians	4	6
1702***	Demonstrate knowledge of electrical legislation, New Zealand Codes of Practice and Standards	4	5
			49

On-job assessments

Unit Number	Unit Standard Name and On-job Booklet Name/s	Level	Credit
32608	Apply knowledge of electrical tools, fittings, and plans in the workplace	4	7
On-job 3	Use Tools and PPE		
On-job 4	Electrical Fittings		
On-job 5	Plans and Measurements		
32615	Demonstrate cable handling and fixing techniques, pre-wire electrical circuits, and join and test TPS cables	4	5
On-job 6	Cable Handling		
On-job 7	Pre-wire Circuits		
On-job 8	TPS cables		
32616	Apply knowledge of common cords, cables, and electrical fittings.	4	6
On-job 9	Cords and Cables.		
On-job 10	Terminations, Fixings and Fittings		
32617	Select and use instruments for testing, fault finding and repairing basic appliances	4	4
On-job 11	Fundamental Electrical Testing		
On-job 12	Appliance Faults Testing and Tagging		
32618	De-commission, test and commission basic electrical appliances, fittings, and equipment	4	4
On-job 13	De-commission Electrical Equipment.		
On-job 14	Commission Electrical Equipment.		

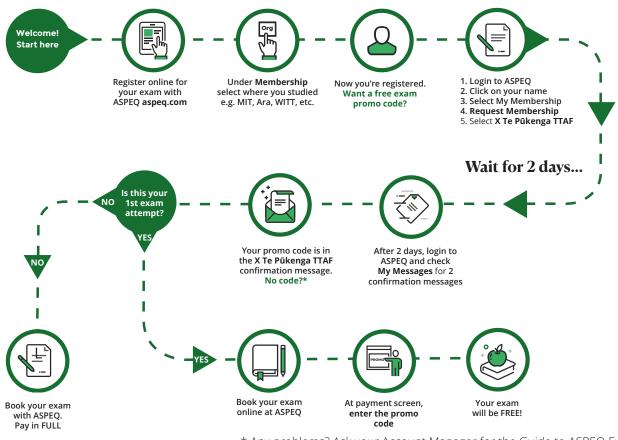
Unit Numbe	er Unit Standard Name and On-job Booklet Name/s	Level	Credit
32630	Establish new worksites and interpret plans	4	4
On-job 15	Establish Worksites		
On-job 16	Create and Interpret Electrical Plans		
32631	Install, join, and terminate cables	4	7
On-job 17	Install cables using support systems.		/
On-job 18	Join and terminate cables.		
32633	Install electrical equipment in damp situations, install earthing, and install lighting	4	9
On-job 19	Install lighting.		
On-job 20	Install earthing and bonding		
On-job 21	Install fittings in damp situations.		
32634	Plan circuit protection, and install and test distribution boards	4	10
On-job 22	Install and test a distribution board	4	10
011-j00 22			
32635	Use fault finding and fault rectification techniques on electrical installations	4	4
On-job 23	Fault find electrical Installations		
32646	Select Cables for Different Applications	4	3
On-job 24	Select cables		
32647	Install Mains and Submains Cables	4	5
On-job 25	Install mains and submains	•	
0			
32648	Install a main Switchboard	4	5
On-job 26	Install a main switchboard.		
22650			10
32650	Install a complete electrical installation	4	10
On-job 27	Carry out an Electrical Installation		
32651	Carry out verification of an electrical installation	4	5
On-job 28	Electrical Verification		
32652	De-commission and commission electrical installations	4	6
On-job 29	De-commission and commission electrical installations	4	0
On-job 29 On-job 30	Commission an electrical installation.		
011-JUD 30			
32653	Maintain electrical installations.	4	5
On-job 31	Maintain Electrical Installations		
			99

Electrical Workers Registration Board Exams

In your third year you will sit two EWRB exams. Your Year Three study will prepare you for these exams. They are **Electrician's Regulations** and **Electrician's Theory.**

You must sit these exams as soon as you finish the exam preparation courses. Exams can be sat throughout the year, but you will need to book in advance to confirm your place. Your tutor can tell you when to book.

Use the process below to book your first exam attempt for free. We can make sure your credits are reported, so please forward your results to **assessments@earnlearn-tepukenga.ac.nz**



* Any problems? Ask your Account Manager for the Guide to ASPEQ Exams.

Some tips for exam success

Create an exam checklist.

Make sure you know what you can take into your exam.

Go into the exam with a strategy.

You don't have to do the questions in the order they appear in the exam. Start answering the ones you find easy – this will give you confidence for the rest of the exam.

Read the question carefully.

Make sure you know what you're being asked to do.

Plan your time.

Make sure that you allow enough time to answer all the questions.

Do a final check.

When you have finished the exam, do a final check of your answers.

Help and support

Need advice with your training, study, finances, or anything to do with your apprenticeship? We're here to help you through your training – and we want you to succeed.

Talk to someone you're comfortable with about any issue you are having, so we can organise some help to keep you working towards your goal.

I need help with my Off-job training

- Ask your class tutor for help. You may not be the only one with that problem.
- Form a study group with other classmates to work together and bounce ideas off each other.
- It is sometimes hard to relate theory to what you do every day. A good tip is to make a note of what you don't understand, and the next day at work, ask your workmates or supervisor about it. This will help you relate what you are learning at your Off-job training to what you are doing on the job.

I need help with my On-job assessments

- Navigate to the course page on My eLearning and work through the guide to On-jobs.
- Ensure you read through the trainee instructions for the assessment, and ask your supervisor/ Workplace Verifier for help if there is anything you don't understand.
- Have a chat to your Account Manager, if they don't know they can find out for you.

What if I have a learning difference?

No problem – we can arrange some personal tuition or extra help, such as a reader/writer for exams to help you succeed in your training. Please contact your EarnLearn Account Manager to discuss.

Looking after you

Vitae offers a free, confidential counseling service to all EarnLearn | Te Pūkenga learners. This is offered throughout New Zealand and is available 24/7.

Their services can address issues such as:

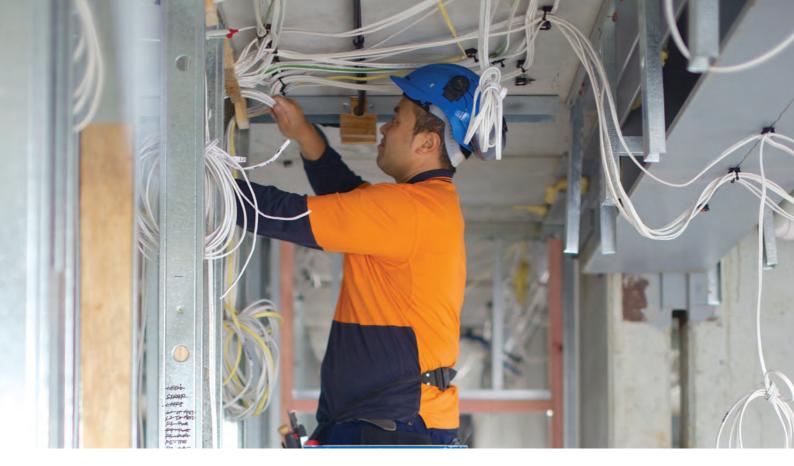
- Personal or study stress
- Relationship problems
- Conflict situations
- Anxiety/depression

- Grief/loss
- Violence
- Harassment
- Addiction

It's easy to get in touch. Free phone 0508 664 981 for 24/7 access, or visit vitae.co.nz to book an appointment.







Frequently asked questions

We've been doing apprenticeships for a while now and we get all sorts of questions. To make life a little easier for you, here's a list of common things we get asked. Remember, if you have a question that's not answered in this guide, just give us a call so we can help you out.

General

How do I access my progress report?

You can access this from My Portal. https://myportal.earnlearn.ac.nz/

Login and click on Reports at the top of the page. Choose Electrical Progress Report. This will open your progress report.

What if there are results missing from my progress report?

Off-job - Talk to your tutor at your Off-job training provider to chase it up. Note: assessment results normally take around a month to appear on your NZQA record.

On-job – Contact your Account Manager and request an update. It could be because it's a busy time of the year and there is a delay in reporting them.

Do I get copies of Australian Standards/New Zealand Standards (AS/NZS)?

Yes. Electrical standards can be accessed via the EWRB portal. Go to ewrb.govt.nz and follow the link to Standards NZ.

What happens when I'm nearing the end of my apprenticeship?

Less than six months to go? Contact your Account Manager to find out about the next steps and working towards your EWRB registration.

On-job Assessments

How often do I need to complete On-job assessments?

You should be able to comfortably complete 10 assessments each year, as a minimum. If you think you'll have problems with this, have a chat to your employer or your EarnLearn Account Manager.

What do I need to do if I've changed companies?

If you've got a new job, you'll need to contact your EarnLearn Account Manager as soon as possible to make sure all the paperwork is done right. You will also need your new supervisor to fill in a supervisor's declaration form, so you can change this information with EWRB.

Off-job training

When do my on-campus classes start?

Your chosen on-campus provider will contact you about course dates. Most campuses have intakes twice a year, but this varies. Talk to your Account Manager for more information on campuses in your region.

What if I can't make it to a class?

While you're required to attend all training classes, we understand that from time to time you'll not be able to for a number of reasons. You'll need to inform your provider or tutor that you are unable to make it. Be sure that when you return, you check what you need to do to catch up on so you don't fall behind. Remember, your employer and EarnLearn Account Manager will be notified of your absence.

What if I'm unable to attend class for a while?

At times, this does happen. Maybe you are working out of town, you're off on ACC because of an injury, or you have an unplanned emergency. You'll need to let your tutor, employer, and Account Manager know ASAP to ensure it doesn't affect your training and look at the options to keep you on track.

What happens if I fail to complete some assessments?

If you notice you're falling behind you need to talk to your tutor, supervisor, and Account Manager. We can help get you back on track before you fall too far behind. If you just fail an assessment the first time round, you are entitled to do a re-sit of that unit. Please check your Off-job provider's policy to see if there's anything else you need to know about.

How many times can l attempt an Off-job assessment?

You have three attempts to pass an Off-job assessment. After three attempts, there may be a cost involved.

Can I swap on-campus providers?

While we don't encourage it, yes, you can. We understand that circumstances can change. To avoid extra costs, you must complete the level you are currently doing in your apprenticeship before swapping. Talk to your Account Manager for more information.

Electrical Workers Registration Board (EWRB)

Who organises my Trainee Limited Certificate (TLC)?

You are responsible for organising your own TLC, and ensuring it remains current throughout your apprenticeship. This is done through the EWRB portal at **ewrb.govt.nz**

You must first apply for an EWRB electrical worker account, and then you can apply for the TLC. You will need your supervisor's details to complete the application. EWRB will process your TLC and send it to you.

Your TLC is valid for four years. If your apprenticeship goes over this time, you will need to apply for another one through the EWRB, pay the fee, and explain why you have not completed your training within the allocated time. Any extension will only last one year.

How do I get hold of the EWRB?

Email: info@ewrb.govt.nz

Phone: 0800 66 1000

Important: If you are having issues with your TLC application, please contact your EarnLearn Account Manager. They will have a step-by-step guide to the process, which might help.

Te Pūkenga makes every effort to ensure that the information provided in this guide is accurate and up-to-date. However the information given, including fees information and the availability and structure of courses, are regularly reviewed and no warranty or representation is given about the ongoing accuracy of such information. All fees may change without notice. Te Pūkenga does not accept liability for any losses or damage that happen directly or indirectly from you relying on the information in this guide. 19

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