



# Fabrication engineering employer guide

Competenz (C)

Te Pūkenga

# World class skills for New Zealand industry

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# Welcome

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## Congratulations on employing your new apprentice

Whether this is your first time employing an apprentice within your business, or you have a long history of developing qualified tradespeople, we at Competenz thank you for embarking on the journey. You're enabling this person to kick-start their career in an exciting industry.

As workplaces continue to change and adapt to new technologies and practices, it will be these individuals that shape how we operate in the future.

This guide provides you with an overview of how the apprenticeship will work and the support that Competenz provides. We look forward to working in partnership with your business to ensure success.

**Welcome on board, from the team at Competenz**



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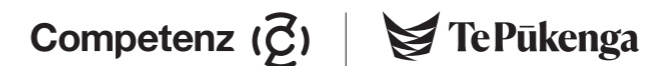
# Competenz overview

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Competenz is a business division of Te Pūkenga Work Based Learning Limited (WBL).

Competenz works with companies and learners around New Zealand to build skills, careers and businesses. We partner with employers, apprentices, schools, training providers and assessors across the country.

Mechanical engineering and fabrication contribute \$2.4 billion to the New Zealand economy per year, and the sector employs more than 43,000 people nationwide.



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## The apprenticeship

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**New Zealand apprenticeships are the premier vocational pathway for new and existing staff. An apprenticeship is a formal arrangement between an employer, employee/learner, and WBL. The apprenticeship is a structured training programme, taking 3-4 years, that leads to a level 4 trade qualification.**

### On-the-job, off-the-job and eLearning

Most of the learning is practical work completed on-the-job. You'll teach your apprentice how to carry out their normal duties at work.

Apprentices also attend a series of two week block courses at a polytechnic or similar. We refer to these as off-the-job learning.

Some learning is theory-based, with apprentices required to complete eLearning via our online learning platform Canvas.

At the end of a New Zealand apprenticeship, your employee will be competent in their chosen strand, to the competency standards determined by your industry.

For more information about apprenticeships, see [competenz.org.nz](https://competenz.org.nz)

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## What you can expect

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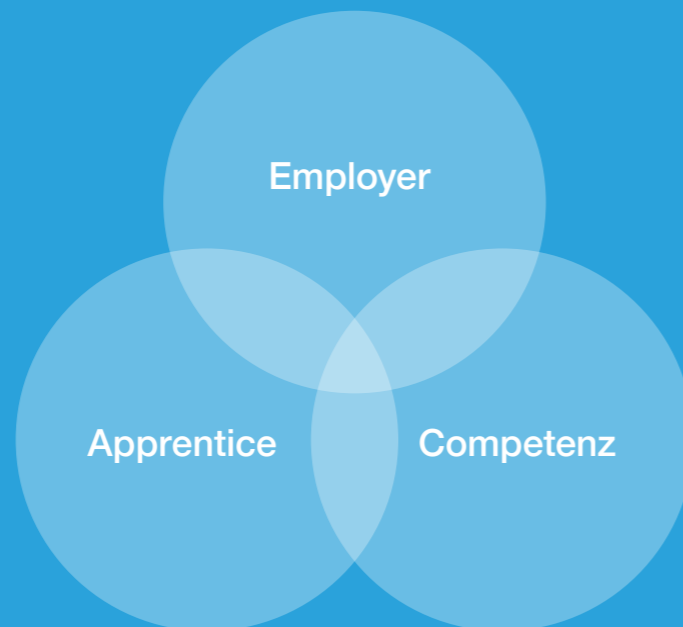
**Your apprentice will do most of their learning on-the-job. Your experienced tradespeople will be their trainer, coach and mentor.**

Your apprentice will go on a series of two week block courses at a polytechnic to complete projects and gain new skills.

There are learner support mechanisms in place to help your apprentice. These include:

- » Inductions
- » Phone support
- » Study groups
- » Dedicated Competenz training advisors
- » Literacy and numeracy support
- » The support your workplace provides the apprentice.

Taking on an apprentice is a three-way partnership between yourself, Competenz and the apprentice.



**Apprenticeships are a three-way partnership between an employer, an apprentice and the training advisor**

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## Roles and responsibilities

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### Employer

Your apprentice is more likely to succeed if you can encourage a positive attitude within the workplace towards training. Make sure the apprentice is supported and mentored appropriately by qualified tradespeople.

The apprentice has a training plan to follow. This plan is their roadmap to success. The people who coach and mentor the apprentice, and schedule work, must be familiar with the training plan. This will enable them to provide the opportunities in the workplace for the apprentice to complete their on-the-job assessments and practice the skills they need to develop.

When you are scheduling work, we ask that you prioritise the apprentice's attendance at block courses and any additional learner support activities they have in place (e.g. study groups).

We recognise that it is challenging for the apprentice to complete their apprenticeship while working 40+ hours per week. Often the last thing the apprentice feels like doing after work is sitting down to a few hours of online learning. If you maintain strong lines of communication with your apprentice and support them as they work through the training plan, they are much more likely to achieve their qualification.

### Apprentice

The apprentice must take ownership of their apprenticeship. It is up to them to complete the on-the-job and off-job components of their apprenticeship, and contribute to the work needs of the business.

They will also need to make sure that they stay up to date with their learning material and assessments. They need to prepare for each quarterly visit with their training advisor, and do what they have agreed to do.

### Competenz

Apprentices need support to achieve their qualification. Competenz training advisors work alongside you to provide this support. Your dedicated training advisor will guide your apprentice through their training, monitor their progress and make sure they complete their on-the-job assessments.

Competenz training advisors ensure there are strong lines of communication with the relevant manager/supervisor within the workplace. Where possible, they will meet face to face with key staff and provide a visit summary report after each visit. These reports outline what the apprentice has achieved against the training plan, and the goals for the next quarter. When everyone understands the apprentices achievements, goals and any challenges, we can work together to help the apprentice succeed.

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## The Competenz training advisor will:

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- ✓ Visit your apprentice in your workplace four times a year
- ✓ Structure training into manageable chunks of learning
- ✓ Set deadlines for assessment completion
- ✓ Mark on-the-job assessments
- ✓ Co-ordinate access to Canvas eLearning and delivery of additional training material
- ✓ Co-ordinate any additional support the apprentice requires (ie: study groups, literacy and numeracy support etc)
- ✓ Assist the apprentice to successfully complete their training programme.

Competenz encourages the apprentice's supervisor/mentor to attend some, if not all of the quarterly meetings, where possible. This ensures everyone is on the same page.



# Graduate outcomes

## The New Zealand Certificate in Engineering Fabrication (Trade) with strands in Heavy Fabrication, Light Fabrication and Steel Construction, Level 4

This qualification has been developed by leading New Zealand fabrication engineers to equip graduates with the skills and knowledge to work productively and safely.

With technology and automation rapidly driving change in the engineering sector, this qualification is designed with the future in mind so you can respond and adapt to change.

### Graduates of this qualification will be able to:

- » Understand relevant health and safety legislation and workplace safety culture
- » Interpret drawings and specifications and use the appropriate materials, processes, tools and equipment for the task
- » Apply knowledge of relevant fabrication principles and practices, and problem-solving skills, to perform engineering fabrication tasks to industry standards
- » Safely weld to an appropriate industry standard in a commercial engineering fabrication environment
- » Use effective and efficient processes, principles and quality systems to fabricate components and provide services in a commercial engineering fabrication environment
- » Communicate effectively within a team and the wider workplace
- » Recognise the limits of their own ability and the importance of working with integrity and maintaining currency in the engineering fabrication field.

### Graduates of the Heavy Fabrication strand will also be able to:

Produce a range of heavy fabricated products, including trucks and trailers, earthmoving machinery, manufacturing equipment, and pressure vessels from heavy gauge plate, sections, and pipes using the appropriate tools and current relevant techniques.

### Graduates of the Light Fabrication strand will also be able to:

Produce a range of light fabricated products such as ducting, architectural fixtures, and balustrading from light gauge sheet, sections, and pipes using the appropriate tools and current relevant techniques.

### Graduates of the Steel Construction strand will also be able to:

Produce and install a range of structural steel elements for building and civil engineering projects, using the appropriate tools and current relevant techniques.

# Planning is the key to success

To complete their qualification on time, apprentices must aim to complete approximately seven credits per month, (February – November).

To make this possible, they need to commit to regular weekly study times. Your guidance and ongoing communication around what study practices they have in place is vital. If there is a quiet room in your workplace, it could be ideal for the apprentice to utilise this at least one day per week to complete their online learning units, either after work or if you are open to allocating time within working hours. The key to success is the apprentice having a study plan and helping them stick to it!



# Management overview

At the conclusion of each quarterly visit with your apprentice, the Competenz training advisor will provide you with a visit summary report. The report outlines:

- » Achievement against previous goals
- » Unit standard progress vs plan
- » Goals set for the next quarter.

To get up-to-date progress information in-between the quarterly visits, you can use the Competenz Portal system. When you log in to the system, you can access a report showing your apprentice's progress against the training plan. Talk to your training advisor to obtain a log-in.

**Piri Smith Training Plan** Competenz

**Company Information**  
 NSN Number: 123-888-8500  
 Trainee No: 507631  
 Mobile: +64211231234  
 Phone:  
 Work Phone:  
 Email: psmith@gmail.com  
 Sheetmetal & Engineering Ltd Company  
 No 4456  
 Mail: PO Box 12345, Auckland  
 Physical: 40 Rogger Road, Albany  
 Start Date: 9/07/2020  
 End Date:

**Active Programme Enrolments for Training Plan**

| Unit  | Status | Start Date | Expected End Date | Programme Duration | Expected Duration | Months in Training |
|---|--------|------------|-------------------|--------------------|-------------------|--------------------|
| NZA in Engineering Fabrication (Light Fabrication), L4, v1, D48, C270 | Active | 6/07/2020  | 6/05/2024         | 48                 | 48                | 0                  |

**Your achievement to date**

Graph showing Credits Achieved towards Qualification (Y-axis, 0-200) vs Months in Training (X-axis, 0-48). A red line represents 'Expected progress' and a blue line represents 'Your progress to date'.

**Compulsory**

| Unit | Description   | Details     | Delivery Mode | Assessment Mode | To Be Assessed | Date Assessed | Credits Achieved |
|------|---|-------------|---------------|-----------------|----------------|---------------|------------------|
| 4435 | Select, use, and care for engineering dimensional measuring equipment | v8, L2, 3Cr | Off Job       |                 |                |               |                  |
| 4436 | Select, use, and care for engineering marking-out equipment           | v7, L2, 3Cr | Off Job       |                 |                |               |                  |

Example of summary report

# The training plan

The individual training plan is the roadmap for the apprenticeship. It is put together by the apprentice, Competenz training advisor and you – the employer. It will include a variety of learning resources and assessment methods.

The training plan is broken into a series of steps, which are made up of a group of unit standards – each with an assessment the apprentice will need to pass.

## The apprentice will learn:

- » In your workplace from the skilled tradespeople
- » Theory through Canvas eLearning
- » Practical skills at a block course alongside experienced tutors.

The order that the apprentice does their learning in is important. They need to learn the right things at the right time. For example we want to ensure that the apprentice has the relevant Health and Safety knowledge before applying it in the practical on-the-job units. We also need to make sure they understand the basics well before attempting the more advanced assessments.

The Competenz training advisor will put everything in the right order for your workplace and your apprentice. Then, the apprentice just needs to focus on following the roadmap to ensure they stay on track.

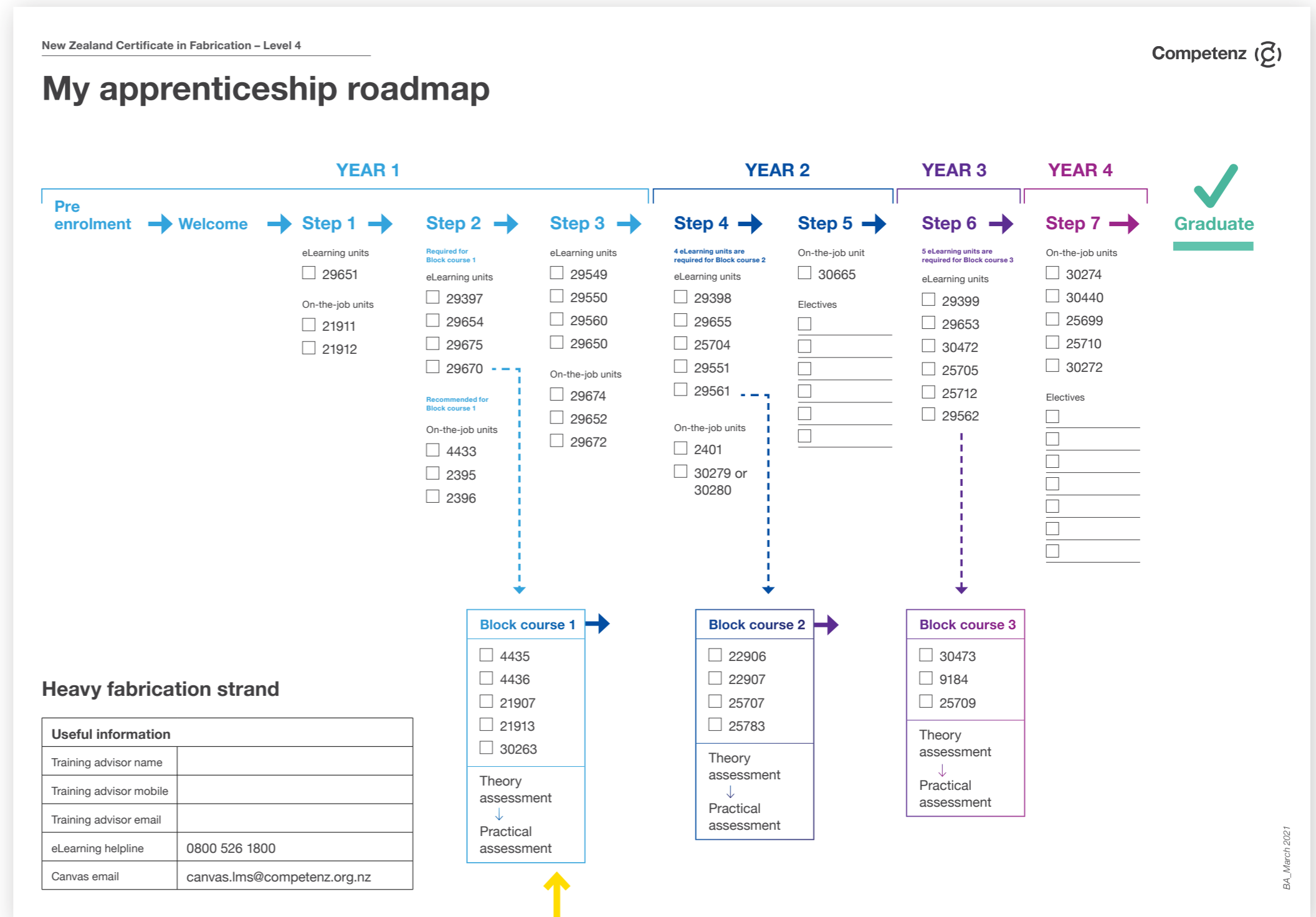
## Block course pre-requisites

Before the apprentice can attend a block course, they will need to complete a block course theory assessment in Canvas. This shows that they are ready, and prepared for, their block course.

## The block course components are made up of:

- » Theory/learning material
- » Pre-requisite units
- » Quizzes to validate what they've learnt
- » A theory assessment
- » Project and practical assessments for their block course.

The apprentice will achieve all the unit standards for the block course when they have successfully completed the theory learning, the online assessment and the practical block course assessment.



Once the theory assessment is achieved, and all the pre-requisite units are completed the apprentice is ready for their block course. You will be emailed, inviting your apprentice to the next course available in your area.

# Assessments

Some assessments check knowledge through a series of questions, much like a quiz. Others require the apprentice to be observed doing a task. Sometimes they're a combination of both of these. It is important the apprentice reads the assessment instructions and questions carefully.

If the apprentice is required to complete a task or be observed doing practical work, it will need to be checked by a verifier. A verifier is someone in your workplace who has the authority to confirm the apprentice has completed the task according to the assessment instructions. Ask your Competenz training advisor if you are not sure who would be suitable to act as the verifier. On-the-job assessments have clear instructions about what the apprentice needs to do and the evidence that must be recorded. There is a form that the verifier signs to confirm what has happened.

If the learning is theory-based, the assessment will be completed online. Once submitted, the assessment will be sent to an eAssessor for marking. If the apprentice does not get it right the first time, the eAssessor will provide guidance about the extra information required or redirect them to the learning material to review the key points again. The eAssessor team strive to mark an assessment within ten working days of receipt.

## Workplace assessor vs verifier

The workplace **assessor** makes the judgement on whether a learner meets competency requirements of the on-the-job unit standards.

The **verifier** attests that the learner's evidence is authentic and meets the performance requirements of the workplace.

The verifier can be referred to as an **observer** in practical assessments.

## Evidence collection

Apprentices will be asked to provide photos as supporting evidence for some assessments. They will need to read the assessment requirements carefully to find out exactly what is expected and what photos they should take.

We see lost phones and lost evidence all too regularly. Encourage the apprentice to be disciplined with their evidence collection from day one. If the apprentice is storing photos on their phone, they need to download them regularly. You can remind them by asking to see the downloaded photos.

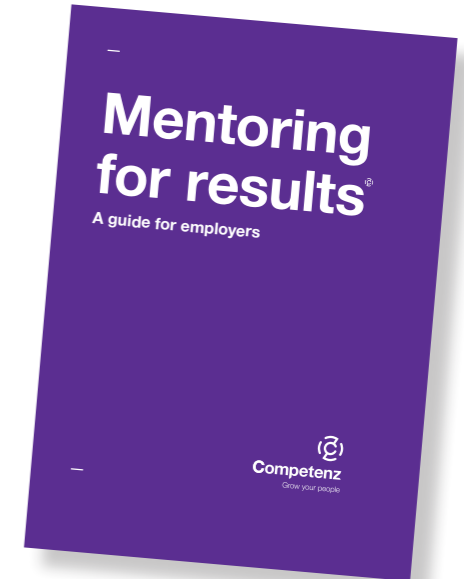
# Support for employers

## Mentoring guide

To support you in your role as mentors, Competenz has developed a mentoring guide. It explains the role of the mentor, the difference between mentoring and managing, and provides numerous tips and tools for effective mentoring.

We recognise that mentoring means different things to different people. When we talk about mentoring apprentices however, we're talking about creating a relationship that is designed to support your apprentice to advance, complete and ultimately, stay with your business.

Your training advisor will provide you with a copy of the mentoring guide, have a good read through.



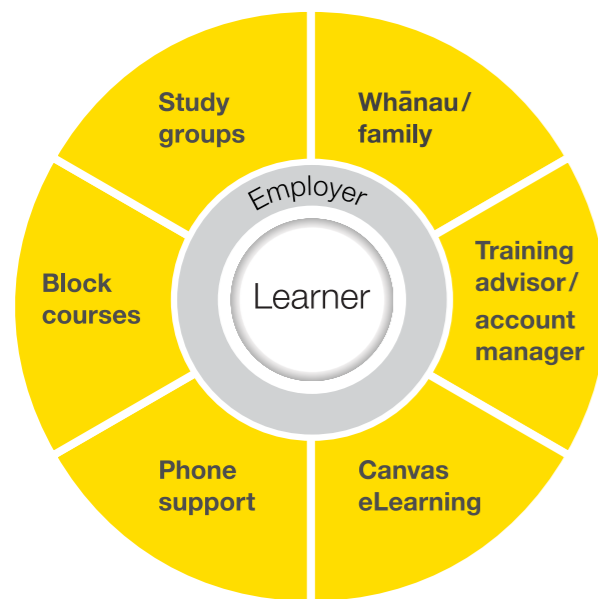
# Support for apprentices

Everyone learns differently and there is no right or wrong way. The apprentice is just starting out, they are not expected to know everything. What is important, however, is that they know where to go to for help when its required, outside of the support provided at your workplace.

Competenz has a range of support options in place to help the apprentice.

## Competenz support model

Learners are supported through a variety of touchpoints.



## Competenz training advisor quarterly visits

The training advisor will guide the apprentice through their training, monitoring their progress and completion of on-the-job assessments.

### At their quarterly visit, the training advisor will:

- » Review their goals and achievements since the last visit
- » Set new goals for the next quarter
- » Answer any questions the apprentice may have
- » Provide any necessary information or updates – e.g. block course details
- » Provide a visit summary report to both the learner and workplace.

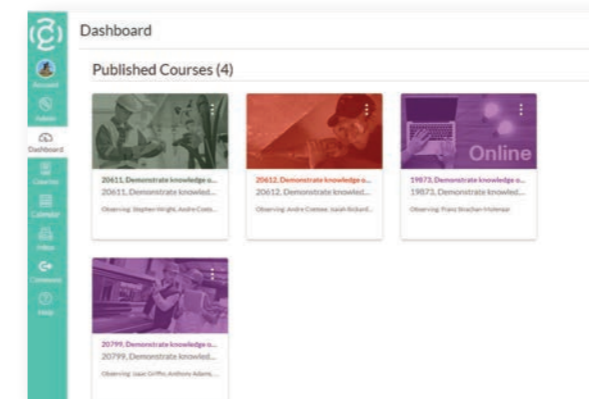
Though the training advisor only visits four times a year, they're always available via phone or email to answer any questions or provide guidance if required. Encourage your apprentice to reach out.



## Canvas eLearning

Access to all assessment is via our eLearning platform, Canvas.

For all questions relating to Canvas, please email [support@competenz.org.nz](mailto:support@competenz.org.nz) or call our Customer Services team on 0800 526 1800.



## eAssessors

Competenz has a team of eAssessors who are responsible for marking the eLearning assessments in Canvas. Encourage your apprentice to engage with the eAssessor team if they are struggling with any aspect of their assessment. They can be contacted for help via the Competenz phone support system.

## Phone support

Call 0800 526 1800 (and press 4 for learner support) between 5pm and 8pm on Tuesdays, Wednesdays and Thursdays.

Our dedicated team can assist the apprentice with logging in to Canvas to complete their eLearning. If they have a question about the learning content, they will be put through to a Canvas assessor who will be able to answer their questions and get them on the right track.

## Block course

Block courses are run by a local polytech that has the machinery and equipment required to operate to complete some of the tasks in the apprenticeship. At a block course, apprentices work on projects and learn how to do things safely.

The tutors watch the apprentices work through the projects and complete the tasks required for assessment. The tutors also mark the apprentices work.

## Study groups

Competenz runs study groups online. Most study groups run fortnightly for two hours, during the week.

When apprentices attend a study group they can receive support from experienced tutors and meet other engineering apprentices. They can take along any questions they have about their assessments. It is important the apprentice sets clear objectives as to what they want to achieve in the study group and is prepared to proactively ask questions.

When an apprentice enrolls for a study group they are expected to attend fortnightly, unless they are sick or approved by their manager due to work commitments. Competenz asks employers to prioritise the apprentice's attendance at the study group (when enrolled) and to consider this when scheduling work.

It is also important to check in with the apprentice about how the study group is going and what they're focusing on in each session.

The apprentice needs to talk to their Competenz training advisor to find out about study groups and how to enrol.

## Language, literacy and numeracy support

- » Is your apprentice finding it hard to keep up with their peers?
- » Have you noticed that they struggle with reading and writing or have learning challenges such as dyslexia?
- » Do they struggle with counting and basic mathematics?

If your apprentice struggles with any of the above, Competenz can help. There is also a range of online tools and support available. Encourage your apprentice to talk with their training advisor to find out more.

## Digital literacy support

Digital skills are essential to participate fully in 21st century life – whether it be in the community, at work or in personal life.

There are useful resources and short courses available that can help bring you up to speed. Check them out below:

- » The Open Polytech – digital study skills (free online course) [openpolytechnic.ac.nz](http://openpolytechnic.ac.nz)
- » Stepping Up NZ – free community based digital literacy classes [steppingup.nz](http://steppingup.nz)

## Financial literacy support

Financial capability is about feeling confident to make wise judgements about how to use and manage money in ways that benefit us now and in the future. It enables us to reach our goals, provide for our family and, ultimately reach retirement in good financial shape.

- » The Commission for Financial Capability provides access to online tools and resources to support this. [cffc.govt.nz](http://cffc.govt.nz)

## Key contacts – where apprentices can go for help

Competenz training advisor

Competenz online learning support – [canvas.lms@competenz.org.nz](mailto:canvas.lms@competenz.org.nz)

Competenz phone support –  
0800 526 1800  
(choose option 4 for learner support)

# Resources to support apprentices

## Assessment guides

All assessment guides should be accessed by the apprentice via Canvas. The Competenz training advisor will agree with the apprentice which units to work on and set goals as to when to complete the assessments.

On-the-job assessments are downloaded, printed and completed by the apprentice, and observed and verified by their on-the-job supervisor. Once complete, the Competenz training advisor will carry out the marking and assessment.

Each assessment guide provides all the information the apprentice requires to complete the assessment, so it's important that they read it carefully.

Encourage the apprentice to bring their on-the-job assessments into the staff room to discuss with the qualified tradespeople within the workplace. This approach encourages some excellent discussions (and learning) in a relaxed environment.

## Textbooks

Two textbooks have been introduced to the programmes that we offer for the New Zealand Certificate in Mechanical Engineering, Mechanical Building Services and Engineering Fabrication to support on-the-job theory and practical components.

### Assessment Requirements

This Assessment Guide is designed to help you provide evidence of your skills and knowledge required by this unit standard.

#### Before you begin

Read through the assessment requirements yourself. Talk with your Assessor if there is anything you don't understand.

Meet with your Assessor to plan your assessment. Your Assessor will:

- » Talk you through this Guide, and discuss when and how you will be assessed.
- » Check you are ready to begin this assessment.

#### What you need to do

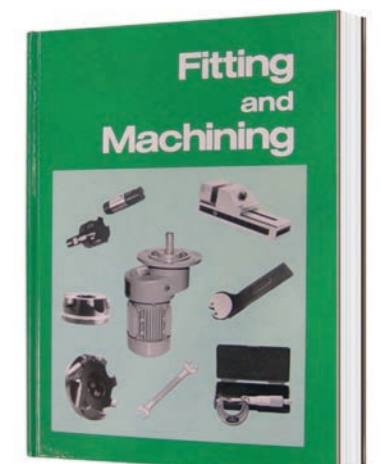
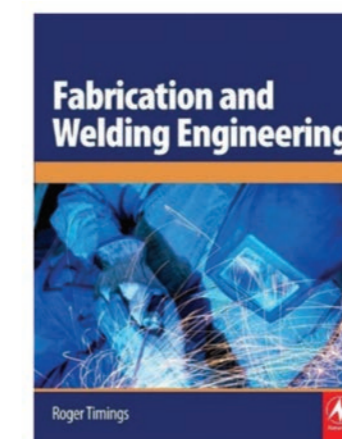
1. Complete the following assessment tasks:

| Questions | Answer questions about:                            |
|-----------|--|
|           | » The principles of pneumatic power systems.       |
|           | » Pneumatic power systems and applications.        |
|           | » Hazards associated with pneumatic power systems. |

**Note:** Your Assessor may choose someone to verify your work. This person must have expertise in knowledge of pneumatics and pneumatic power systems and could be someone you report to, your trainer, or a supervisor or manager who works with you regularly.

2. When you have completed all the assessment tasks, complete the Candidate Evidence Check at the end of this Guide.
3. When you are sure you have completed and/or attached everything, contact your Assessor or Account Manager to arrange the next steps.

An example of an assessment requirement found on Canvas





**Talk to us about  
growing your business,  
people and skills**

**0800 526 1800**  
**[info@competenz.org.nz](mailto:info@competenz.org.nz)**  
**[competenz.org.nz](http://competenz.org.nz)**



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**Te Pūkenga**

