Aircraft Maintenance Engineering

Christchurch Engine Centre
Propel your career
We are the Christchurch Engine Centre.

A joint venture company between Air New Zealand and Pratt & Whitney. We overhaul and repair aircraft jet engines. Over 400 people are employed at our facilities at the Christchurch Airport supporting customers from all over the world. From marketing our services, the logistics of moving engines to our shop, our qualified aircraft engineers repairing the engines to our finance team our business is complex and exciting. If engines and aviation is what interests you we have the apprenticeship you've been waiting for.

Pratt & Whitney is a leader in global aviation.

Starting an aerospace career as an apprentice at the CHCEC has the potential to open doors to a world full of opportunities in aerospace/aviation. We are committed to becoming one of the world leading businesses in aviation MRO services. I invite you to understand the opportunities we can offer and I hope you can join us on our journey.

William Moeller - General Manager
APPRENTICESHIP OVERVIEW

What is an Apprenticeship?
It's a commitment between you, (the Apprentice), us, (the Employer) and the ATTTO, (the Industry Training Organisation).

The Apprenticeship normally takes 4 years. You'll combine study with practical work experience as part of a carefully planned training programme. You will be paid as you learn and we take care of the training costs!

What’s the qualification I would gain?

What will I learn?
Mechanical Engineering, Aeronautical Engineering, Materials and their uses, Trade Calculations, Measurement, Welding, Machining, Workplace Safety, First Aid.

How do I enter the Programme?
You need to enrol at CPIT for the Certificate in Engineering (Fitting, Turning & Toolmaking), Level II. (THE CHCEC does not imply that you will automatically gain entry to our apprenticeship but we will be selecting people from this course who gain the certificate).

CONTACT INFO:
Call CPIT on (03) 9406045, visit www.cpit.ac.nz to begin the enrolment process or call Chris Brooks, CHCEC on (03) 3747629.

The Certificate in Engineering is a 22 week basic engineering course for which you will need:
12 or more NCEA Level 1 credits in both English and mathematics or equivalent; AND
8 or more NCEA Level 1 credits in either technology, metalwork or graphics.

We will work with you during this course, provide you workplace experience, put you in our workplace clothes if you have good course results and if you pass and you come work for us we will pay back your CPIT course fees.
What does our Apprenticeship Programme look like?

We select you from the CPIT Certificate in Engineering (Fitting, Turning and Toolmaking) Level 2 course.

We sign you up for the first phase of our Apprenticeship. You will then be reimbursed for the CPIT Certificate in Engineering course cost.

For the next 6 weeks you will receive aeronautical engineering training at NMIT in Marlborough. The cost of the course is paid for, your accommodation is paid for, we pay for your safety equipment and you will get paid while you learn! But you must pass the course!

On successful completion, you get a pay rise, and you will now start gaining your practical experience while working along side our qualified engineers in the workshop. You will get to work in many areas of the business not just operations but many of the support areas too!

Over the next 36 months you will work toward completing the **The National Certificate in Aeronautical Engineering – Powerplant, Level 4.**
APPRENTICESHIP CONTENT

Engineering Core
Unit Standards

21911 Demonstrate knowledge of safety on engineering worksites
21912 Apply safe working practices on an engineering worksite
3894 Use aeronautical industry publications & documentation
3895 Apply aeronautical engineering maintenance practices
3896 Select, use and maintain aeronautical engineering tools and equipment
5428 Demonstrate an understanding of aircraft construction & maintenance practices

6401 Provide first aid
6402 Provide resuscitation

Powerplant Unit
Standards

3402 Balance aeronautical rotating assemblies. 3402 Inspect aircraft engines.
7240 Demonstrate knowledge of powerplant repair & overhaul practices.
3418 Repair &/or overhaul aircraft gearboxes & transmissions.
23160 Install, operate & remove aircraft powerplants from a test bed.
23161 Repair &/or overhaul aircraft gas turbine compressors.
23162 Repair &/or overhaul aircraft gas turbine combustion sections.
23163 Repair &/or overhaul aircraft powerplant turbine sections.
23164 Disassemble & assemble aircraft gas turbine engines.
4086 Carryout NDT inspections using liquid penetrant methods.
4087 Carryout NDT inspections using magnetic particle methods.

10793 Control incoming technical information. 10796 Promulgate & control technical information & instructions.
20906 Demonstrate knowledge of CAA Rules relating to the maintenance control & certification of aircraft.
OPPORTUNITIES

What happens when I finish?

As a qualified Aircraft Engineer at the CHCEC other opportunities are available! You can apply for other roles when they are advertised, you may be interested in our support areas like Engineering, Quality Assurance, Planning, Sales and Customer Service.

We want to support and help prepare you for other opportunities!

The civil aviation industry qualification is the Aircraft Maintenance Engineers Licence. This qualification recognises your aviation skill and knowledge and can give you a level of privilege and authority within the aircraft industry.

Rob Voice, Aircraft Engineer.

After completing a pre-trade course at Air New Zealand’s training school, I was successful in gaining an apprenticeship at the Christchurch Engine Centre. This turbine engine specific traineeship sent me through various areas of the business. I learnt lots of new skills and met people from all over the world. It took me 2 years to complete my level 4 certificate in aeronautical engineering powerplant strand and with the combined study toward an AME licence I bumped it up to a level 6 diploma in aeronautical certification powerplant a year later. I am glad I chose an apprenticeship at the engine centre as I have no student loan and the company assist with tertiary study too.
EMployment opportunities

We have an employee scholar program!

The Christchurch Engine Centre recognises the value of tertiary studies both as benefit to the individual and fundamental to achieving business objectives.

We want to encourage our employees to take part in continuing education at a tertiary level with the program aimed at those studying at the level of Bachelors, Post Graduate Diploma, Masters or Doctoral degree.

The program will provide for the payment of tuition fees, course-required textbooks, registration and academic fees as well as paid time off to attend classes.

In recognition of the accomplishments of employees who graduate from this program UTC common stock will be awarded.

Andrew Renwick – Scholar Recipient

“The Christchurch Engine Centre Scholar Programme has provided me with the opportunity to further my career by providing financial and educational support in order to complete a Degree in Business Management & and Post Graduate Diploma in Quality Assurance.

The programme assisted me in determining which course of study was most appropriate, paid for my tuition and study material and on completion of my qualifications awarded me with UTC stock to acknowledge my achievement.

In my view the Christchurch Engine Centre Scholar Programme is without exception the best in New Zealand.”
HOW A GAS TURBINE WORKS

1. Air enters inlet
2. Air is compressed
3. Fuel is added forming a fuel/air mixture which is then ignited
4. The expanding exhaust gases drive the turbines as they pass through and exit the engine
5. The turbine is connected to and drives the compressor section

"SUCK" "SQUEEZE" "BANG" "BLOW"
REGISTRATION OF INTEREST

“Please register my interest in your apprenticeship programme”

Are you a NZ/Australian citizen or Permanent Resident?: Yes ☐ No ☐
If you answer “no” to this question, you may not be eligible for employment in NZ.

Full name: ____________________________________________
Date of Birth: Male ☐ Female ☐
Postal Address: ____________________________________________
Telephone number: __________________ Fax number: ____________
Email: _________________________________________________

Highest educational qualification:
Subjects: __________________ Grades: __________
______________________ _______________
______________________ _______________
______________________ _______________
______________________ _______________

Please tear form out and send to:
Chris Brooks - Training Manager
Christchurch Engine Centre
P O Box 14005
Christchurch Airport
REGISTRATION OF INTEREST

For statistical purposes only:

How did you hear about this apprenticeship?

- Friends / family
- Careers advisor
- Newspaper ad
- Internet / website
- Radio
- Other

Where have you attended secondary school?

School: ___________________________ Years: ____________

Have you been employed (if so what years)?

Employer: ___________________ Year: ____________
Employer: ___________________ Year: ____________
Employer: ___________________ Year: ____________

Do you have any physical disability?

____________________________________________________________________
____________________________________________________________________
____________________________________________________________________

If you have any questions, please call us on (03) 374 7629
Want to know more? Call now!

Christchurch Engine Centre

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(Trades Innovation Institute)
Phone: 0800 242 476 or Email: bakerr@cpit.ac.nz Website: www.cpit.ac.nz

Dave Evans
Industrial Training Advisor
Phone (03) 5784631 Cell: 0211882660 or Email: dave.evans@attto.org.nz Website: www.attto.org.nz

Who else can help?
Ask your school career advisor to contact us. Find if your school takes part in the Gateway Programme? If it does we are happy to be involved!

Gateway - Phone: 0800 TEC INFO (0800 832 463) Email: info@tec.govt.nz