

Building AM Capacity through Workplace Learning

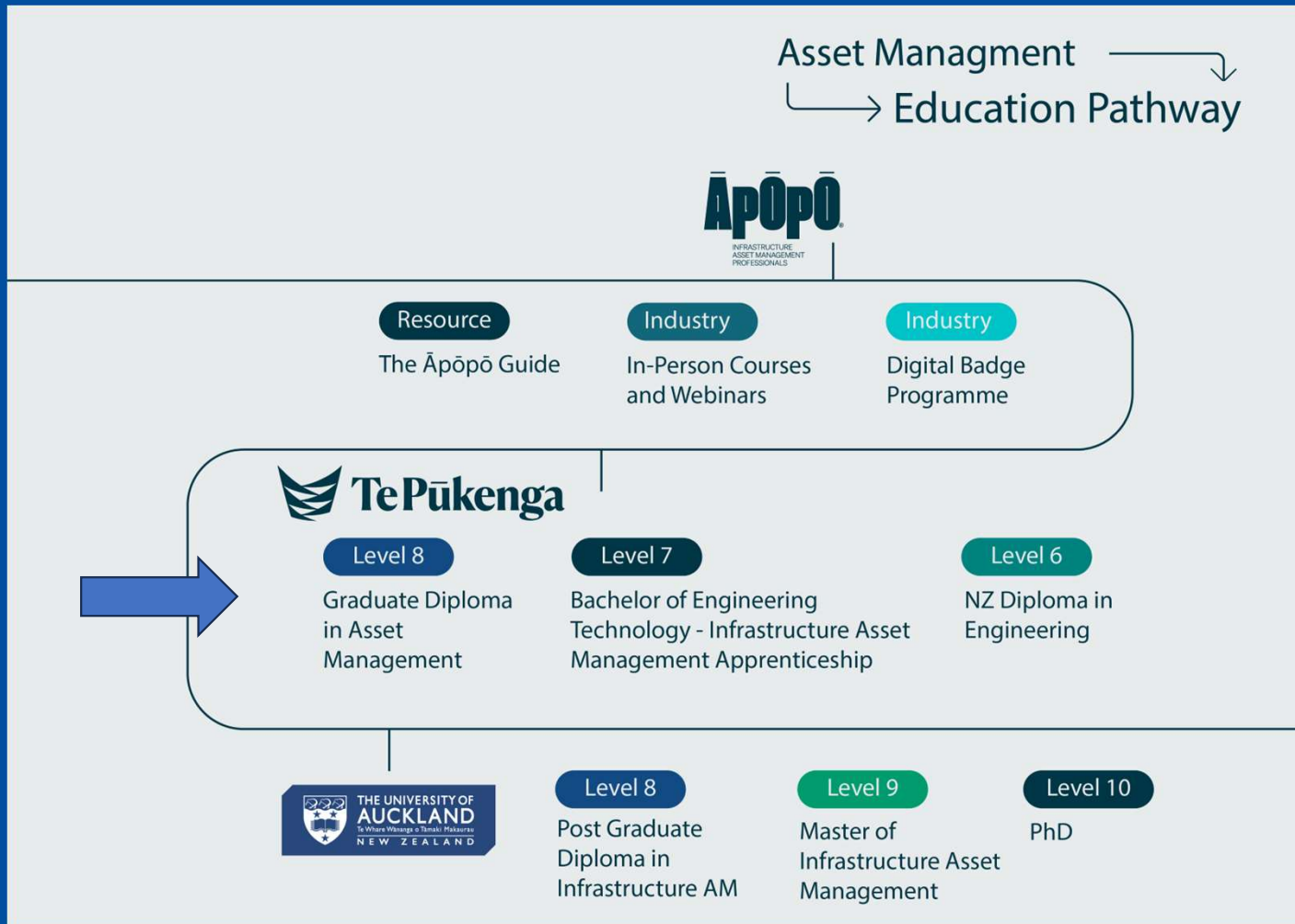


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BEngTech Infrastructure Asset Mgt Degree Apprenticeship

Approaching a fully work-integrated degree

Aotearoa | New Zealand's 1st Degree Apprenticeship (Bachelor of Engineering Technology Infrastructure Asset Management) has been running since 2020.

75 Apprentice learners enrolled 2020 - 2024.

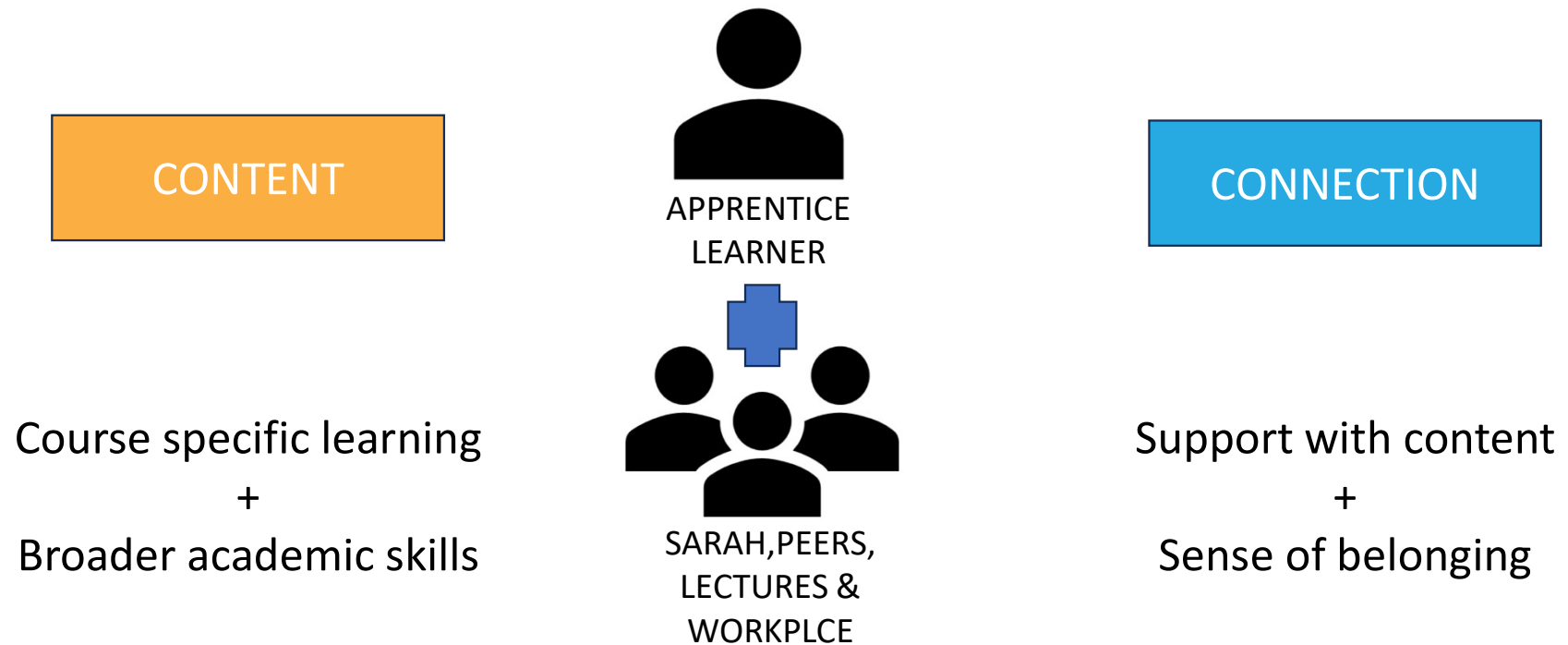
Most of whom:

- Are part time with significant work roles
- Are primarily based in the workplace
- Are very seldom (if ever on campus)
- Need to join some classes which are being taught on campus – Live stream, in person, recorded



Content and Connection

Access to both content and connection is required to give ākonga | learners the best chance of success.



Asset Management Stream of the BEngTech

Four Asset Management focussed Electives

- Introduction to Asset Management (L6)
- Asset Management Planning (L6)
- Data Analytics and Statistics (L7)
- Risk Management (L7)

3 of the 4 courses are compulsory electives within the degree apprenticeship. Learners can choose between the two L7 courses or do both.

Civil, Electrical and Mechanical Majors



AM Course Delivery: An interdependent model

There are some top shelf experts, internationally recognised based in New Zealand, ready to share from the coal face, warts and all....and they were willing to work with us pro bono in most instances to create expertise in the sector; especially to develop our Asset Management learners completing the BEngTech or the Asset Management only pathway and build our Asset Management capability in New Zealand



The Value of Industry Delivery of Learning

Current practicing professional

Real projects being discussed

Alignment to learners' own environments

Inclusion of international examples and practice

Experience of what works, doesn't and not right now

Relationships and connections

Inspirational and motivating



Graduate Diploma in Asset Management (L7/8 TBC)

2 years part time study

Workplace based projects

Fully facilitated online live delivery

Industry expertise delivering the learning

Cost \$1060 per 15 credits (may be yearly incremental rise in fees)

Student membership to Āpōpō NZ

Te Ao Māori Digital Badge

Course material: The Āpōpō Guide



Year 1

Full Year - Principles of Asset Management (30 Credits) (L6)

Semester 2 – Risk Management (15 credits) (L7)

Semester 3 – Data Analytics and Statistics (15 credits) (L7)

Year 2

Full Year – Asset Management Research & Development Project (30 credits) (L7/8 TBC)

Semester 1 – Emergency Management Planning for Asset Management

Semester 2 – Strategic Asset Management Planning (15 credits) (L8)



Key Contributors to the Asset Management Courses

People and Organisations – Content Development and or as a SME for sessions

- **Jon Visser (Port Otago) - Facilitator**
- **Vaughan McEwen (Retired ex NZDF) - Facilitator**
- **Gemma Mathieson (IDS) - Data Analytics & Statistics Lecturer**
- Ross Waugh (Waugh Infrastructure)
- Peter Mortimer (Downer)
- Vaughn Crowther (Utility NZ)
- Priyani De Silva Currie (BECA) – LOS & Enablers & Block Course 1
- Elke Beca (WSP) Lifecycle & ODM
- Gemma Mathieson (IDS) Lifecycle & ODM
- Roger Fairclough (Neoleaf Global) - Hazards
- Brian Smith (Retired ex ODG) – Finance and Audit
- Tim Cross (WSP) – Modelling and Asset Design
- Stephen Phillipson (NZDE) – Soft Assets and Land Development
- David Long & Matt Abbot (SPM) – AM Software & Tools
- Nick Dawe (WSP) – Maintenance Contract Mgt
- Jonathon Morris – Block Course 1
- And many more

Industry Groups/Websites

- **Āpōpō NZ** – Industry Member Group for AM Best Practice. Badges, Guide & Membership for students
- **Inframanage.co.nz** – Directed Learning and Additional Resources
- **IPWEA.co.nz** – IIMM Content



Questions

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Bibliography & Referenced Content

(accessed on 10 December 2023)

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- NAMS <https://ipwea.org.nz/nams/>
- Apopo <https://apopo.co.nz/>
- Apopo Digital Badges <https://apopo.co.nz/digital-badges/>
- IAM <https://theiam.org/>
- Inframanage online resources <https://inframanage.com/>
- Te Ringa Maimoa <https://www.nzta.govt.nz/planning-and-investment/planning/transport-excellence-partnership/>
- IDS <https://www.ids.org.nz/>
- Infrastructure New Zealand <https://infrastructure.org.nz/>
- Engineering New Zealand
<https://www.engineeringnz.org/>

Images used (all websites accessed on 10th December 2024)

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