engineering new zealand
te ao rangahau

PROFESSIONAL DEVELOPMENT 2024 prospectus

Reach your true potential as an engineer.

Build your skillset to impact people and projects.

Tēnā koutou e te whānau o Te Ao Rangahau. Hello and welcome to everyone in our Engineering New Zealand community.

Courses designed with every engineer in mind

As the engineering sector continues to rapidly evolve, your continuing professional development (CPD) will need to keep pace with the change.

Our Learning Partnerships team are here to help you refresh your knowledge and skills, advance your career and support you to reach your true potential as an engineer. Our vision is:

"Empowering engineers through lifelong learning and collaborative growth to shape a better future for all."

To embrace this vision and support you in navigating our professional development learning activities, we're pleased to provide an overview of our entire 2024 CPD prospectus. You'll be able to easily navigate this prospectus using our CPD model: incorporating three competency domains and various sub-domain categories.

We're excited to bring you a range of new learning activities for 2024 that include online modules and in-person courses. You'll see these highlighted as 'NEW' in the prospectus and you'll be informed of any course additions as they go live.

Another new initiative for 2024 is the launch of an improved Learning and Event Management System to enhance your professional development experience. Key benefits include improved search functionality, more effective CPD activity reporting, more detailed course pages for making an informed choice and a better payment gateway.

Now is the time to take advantage of these advances in CPD, so you can progress your engineering competence and practice to engineer better lives. Engineering New Zealand will be right there with you, every step of the way.

Dr Nick Kimber
Learning Partnerships Manager

Course confirmation

We need a minimum number of registrations before the scheduled locations are confirmed. We'll aim to make the decision 3–4 weeks ahead of the delivery date.

Questions?

Email learn@engineeringnz.org

Contents

In-house courses for your organisation

Your business depends on the skill and knowledge of your engineers. Give them the best professional development opportunities and invest in their capabilities.

Cost-effective, convenient and customised staff training is available, tailored to your specific needs. You can even combine with another business in your network to make the most of your investment, with courses on offer for 10–25 people at a time.

Find out how you can retain your best employees at engineeringnz.org/in-house

Presenter profiles

Adam Thornton

Adam Thornton has over 35 years of experience leading structural engineering design teams on a wide range of commercial, residential and institutional projects. Adam presents our Demonstrating compliance – the use of producer statements course, which is currently running throughout New Zealand.

Adam is a Distinguished Fellow of Engineering New Zealand, a past-President and life member of the Association of Consulting Engineers of New Zealand and a former board member of the International Federation of Consulting Engineers (FIDIC). He continues to be involved in the leadership and professional development of engineers and still provides strategic advice to Engineering New Zealand and ACE NZ.

Now retired as a principal of Dunning Thornton, Adam continues with some project work and provides expert opinion when engineers' work has fallen short of expectations.

Adam is the recipient of the IPENZ Angus Award, the IPENZ Turner Award for Professional Commitment, the ACENZ President's Award and a number of ACENZ project awards.

Courses: Demonstrating compliance – the use of producer statements

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Allan Leahy

Allan Leahy is a Fellow of Engineering New Zealand, an Honorary Life Member of ACE New Zealand, was named Stormwater Professional of the Year in 2017 for Water New Zealand's Stormwater Special Interest Group and is a member of the gold shovel society in Water New Zealand.

Allan's career of nearly 40 years has spanned many years in consulting and latterly at Auckland Council Healthy Waters. His career has focused on understanding and managing the full range of impacts that stormwater discharges have on both natural and human environments. His project experience includes planning, investigation, design and construction of a range of stormwater applications for private, government and industrial clients. He understands both the engineering imperatives of construction projects, but also the financial, environmental, social and planning context the engineering solutions need to operate within. At Auckland Council, Allan's focus is on the Auckland flood recovery programme and planning regulations to minimise the future consequences of these events.

Courses: Stormwater management and design – an introduction,
The principles of stormwater treatment

Andrew McDonald

Andrew McDonald is a CPEng and IntPE engineer specialising in traffic safety and the design of walking and cycling facilities. Through his involvement in designing public spaces, he developed an interest in reducing the risk of crime and obtained the qualification of crime prevention through environmental design (CPTED) professional designation through the National Institute of Crime Prevention in the United States.

Andrew has since applied the principles of CPTED to his designs, undertaken CPTED assessments, prepared specialist inputs for consent applications and prepared hearing evidence.

Courses: Crime prevention through environmental design

Bill Butler

Bill Butler CA B.Com, Dip. Soc. Sci. (Psychol) is Principal Consultant and Director of Academy of Training, which specialises in training workshops, consultancy services and conference addresses.

Bill has a wealth of training experience, is an experienced and seasoned conference speaker and has written and produced his own radio programme. His work in leadership, project management, problem resolution and decision-making extends beyond New Zealand into Central America, Australia, Singapore, the Middle East and more recently, Pakistan, Samoa and India.

Courses: Communication stakeholder relationship management

Dianne Johnson

Dianne Johnson is the Director of Capital Improvements Ltd. The majority of her work is related to helping resolve disputes, which might be as simple as discussing a matter on site or as complex as being an expert witness in the High Court.

Dianne has practised as a building surveyor for 25 years and been a member of the New Zealand Institute of Building Surveyors, Women in Construction, the Royal Institute of Chartered Surveyors, Resolution Institute and the Society of Construction Law. She also provides technical and subject-matter training to a wide-range of professionals in the building sector.

Courses: Expert Opinion: how to formulate and express it

Gavin Shaw

Gavin Shaw is Director at Navig8 Construction Advisory, a practice focused on helping clients and projects set a course for success.

With over 25 years of experience in capital project delivery and business leadership, Gavin serves as a trusted advisor in the construction industry. As an accomplished project leader and Engineer to Contract, he is deeply passionate about influencing positive outcomes.

Gavin served as a member of the Standards New Zealand Committee for the revision of NZS 3910:2023, demonstrating his commitment to shaping industry standards. Additionally, Gavin is the founding Chair of the Society of Construction Contract Practitioners, a testament to his leadership and passion for advancing outcomes across the construction community.

Courses: NZS 3910 courses

Greg Morehouse

Graduate level course work in Structural Analysis resulted in Greg Morehouse taking a Structural Analysis Liaison position at the US Air Force for Hercules Aerospace. After working as an Engineering Analyst for Boeing, Greg moved from Seattle to New Zealand. In 1999, Greg founded Motovated Design & Analysis, and still works in the business as CEO and Senior Engineering Analyst. Motovated specialises in engineering analysis, machine design, product development and safety engineering to worldwide markets.

Courses: When to use FEA (Finite Element Analysis)

Dr Giovanna Fenster

Dr Gigi Fenster studied law in South Africa, where she was a founding member of the Construction Industry Development Board, a lecturer on the Association of Arbitrator's Construction Law course and a provider of training to the construction industry. For the past sixteen years, she has lived in New Zealand and worked in government and in the polytechnic sector teaching law. Gigi has taught law for more than twenty years and has written training courses, manuals and seminar notes for the construction industry and other industries. Gigi has a PhD in Creative Writing and has published two books.

Courses: Conditions of contract for consultancy services, recorded webinars on constructing sentences

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Julia Shallcrass

Julia Shallcrass is an employment lawyer who specialises in presenting on employment law and HR innovation to help create better workplaces.

As founder of KiwiBoss, she delivers in-house training to organisations in the public, private and not-for-profit sectors throughout New Zealand. Julia upskills people managers and HR professionals on improving people and performance productivity.

Courses: Technical report writing, Writing in plain English, Essential business writing, Time management for productivity, Manager's guide to HR, Interviewing skills for managers, Giving feedback and performance reviews, Managing poor performers and misconduct, Resilience and wellbeing, Leader's guide to performance management, Employment law for managers

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Mark Finlayson

Mark Finlayson brings 26 years of surveying experience with spatial data. For the past five years, he has led the Envivo 3D Laser Scanning team.

Mark has a Bachelor of Surveying with Distinction. His career includes four years as a Hydrographic Surveyor where he was involved in seafloor mapping, positioning oil rigs, installing fibre optic cables, laying oil pipelines and offshore infrastructure. He worked actively in Singapore, Thailand, Papua New Guinea, Iran, Oman, UAE, Pakistan, the Persian Gulf, Indian Ocean, Gulf of Papua and the Gulf of Thailand.

Mark was also involved with the construction of the Jubilee Line and Parliament Station on the London Underground. Specific tasks included managing survey teams that monitored live tunnels and tracks, Big Ben and the houses of parliament, 10 Downing Street and other historic and culturally important sites.

Mark is currently Survey Director at Envivo and is excited to be involved with emerging surveying technology such as 3D laser scanning, GIS capture and BIM implementation. He relishes the challenge of getting the latest technologies working for his clients, whether it's point clouds, Revit models or asset capture.

Courses: 3D laser scanning for engineers

Mark Moppett

Mark Moppett is a Fellow of the Institution of Structural Engineers – with 40 years of experience including 15 years as an Associate with Ove Arup in London, Hong Kong and latterly Manchester – delivering projects both nationally and internationally.

From 2001 to 2021, he was initially the Senior Partner and then Managing Director of Booth King in Manchester.

Mark remains a fully practising engineer. He specialises in the structural design of complex new-build projects and those which involve the major repair and refurbishment of historic structures. He also has considerable experience as an Expert Witness on many legal cases.

Courses: Understanding structural behaviour

Dr Martin Larisch

Dr Martin Larisch started his career as a carpenter in Germany. Today, he is a Fellow with Engineering New Zealand and the Principal of his own independent geotechnical consultancy firm in Waikanae, Kapiti Coast. He has been involved in the design, construction and verification of a large number and variety of different ground retention systems for more than 25 years across New Zealand, Australia and Germany.

Martin has published more than 30 technical papers for international journals and conferences. He is a current member of the New Zealand Geotechnical Society (NZGS) Management Committee and is also representing the NZGS in Technical Committee TC212 'Deep Foundations' at the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE).

Courses: Gravity retaining walls, Embedded retaining walls, pile design and analysis of single piles, Fundamentals of pile design in liquefiable and expansive soils

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Matthew Sherwood-King

Matthew Sherwood-King has been practising law since 1984. He began his career as a solicitor for Lovells, one of London's principal international law firms. Following some years with Bell Gully and Simpson Grierson, in 1999 he opened his own barrister's practice from chambers in central Wellington.

His work as a barrister includes acting for clients on tort and contract matters; trust and property disputes; environmental issues; arbitrator in matters involving construction, rental, and valuation disputes; sub-division, planning and other land disputes and construction disputes.

Matthew is also an instructor for the New Zealand branch of the Australian College of Law legal professionals course for young lawyers and a Teaching Fellow at Victoria University Law School.

Courses: Expert Opinion: how to formulate and express it

Piet Beukman

Piet Beukman has a passion for developing engineers into capable professional leaders that can deal with their technical, as well as business tasks, with equal capability.

Piet is the former Director of the Engineering Management Programme at the University of Canterbury and is now self-employed as a coach, mentor, consultant and educator. An accomplished "pracademic", he has over 45 years of experience in the aerospace, military, marine engineering, venture capital, commercialisation and consulting industries to offer. He also has hands-on experience of managing complex engineering projects.

Piet has presented numerous webinars and short courses for local and international organisations, including consulting firms, contractors, technology companies, district and city councils, electricity, infrastructure organisations and government departments. Piet also teaches papers in the University of Otago MBA programme.

Courses: Project management for engineers, Leading project management for engineers, Risk management for engineers, Strategy for engineers, Specification practice for engineers

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Rob Maszkowski

Rob Maszkowski, the brain behind the Touchstone Engineering Review Framework, boasts over a decade of expertise in quality management in the fields of engineering, construction and defence across Australia and New Zealand.

Drawing from his vast experience managing design deliverables on high-value projects, conducting audits on diverse engineering and construction projects, and enhancing project processes for both niche and global firms, Rob has meticulously honed the framework to ensure its wide-ranging applicability.

Courses: Engineering review framework

Sean McLoughney

Sean McLoughney, founder of LearningCurve, provides talent support that drives better performance and talent retention by utilising the latest thinking in learning and technology. Since 2001, he has helped professionals at every level improve their performance through his Talent Support Programme.

In addition to his work with LearningCurve, Sean is also senior lecturer for IPASS (International Payroll Association Ltd) as well as a senior lecturer (Business and Technology-ACCA & E1 – CIMA) at Accountancy School, Ireland.

Courses: Time management – planning your day, week and month, Dealing with conflict situations, New to managing a team, 10 habits of highly effective teams

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Stuart Meakins

Stuart Meakins has over 25 years' experience of working in the construction industry in both the United Kingdom and New Zealand and has a master's degree from the Auckland University Law School.

Earlier roles in the United Kingdom included asset advisor to the Crown Estate and research manager for the Construction Industry Research and Information Association (CIRIA) before moving into construction contract management.

Stuart has been a client-side project and contracts manager for the past 15 years and has managed a wide range of NEC, ICE and NZS 3910 contracts and has "real life" experience of the challenges of working in this environment.

Susan Hansen

Susan Hansen is a chartered accountant with an MBA in finance. She worked for a Big Four Accounting firm and an investment bank before establishing a financial training firm. She is a non-executive director of listed companies in Australia and the United Kingdom.

Courses: Understanding finance

Susan Thodey

Susan Thodey was educated and admitted as a solicitor in London. In 1989, she moved to New Zealand and was subsequently admitted as a solicitor and barrister, both in New Zealand and Western Samoa. Susan worked for many years as the Managing Partner in a mid-sized Auckland firm. Since 2015, she has been in sole practice based in Queenstown.

Since 1989, Susan has specialised in the resolution of professional liability disputes. She acts for a range of clients including professionals, local and regional government and insurance companies.

From 2012 to 2018, Susan was appointed to a government role to assist on the legal aspects of the rebuild of Christchurch following the Canterbury Earthquakes.

In 2019, Susan started working with Engineering New Zealand as an educator focused on teaching engineers about the legal aspects of their professional responsibilities, potential liabilities and insurance relationships.

Courses: Negligence and liability for engineers

CORE COMPETENCY DOMAIN

Bi-cultural competency/Te Tiriti

Te Tiriti O Waitangi: Introduction

Understanding the content and implications of Te Tiriti and The Treaty is necessary to help engineers define the constraints they work within and the responsibilities they operate under.

You'll learn the context and content of Te Tiriti and The Treaty, modern day implications and your obligations as an engineer.

2 hours

Self-directed online module

Members: Free Non-members: $90

Ethics, culture and climate

Diversity and inclusion: an introduction for engineers

Engineers are problem solvers by nature. To be effective in your work, you need to be able to consider the solutions you're developing to problems, through their impact on all users. Approaching problem-solving through the lens of inclusion for diverse needs and identities, strengthens your work as an engineer.

In this module, you'll be introduced to diversity, equity and inclusion, what causes biases and how to mitigate and overcome them. You'll explore how to incorporate inclusivity into the design of your work.

2 hours

Self-directed online module

Members: Free Non-members: $75

Code of Ethical Conduct

This online module introduces the Engineering New Zealand Code of Ethical Conduct and the eight principles that govern it. At the end of the module, you'll be better equipped to understand the importance of working ethically and have tools in your kete to use when considering the ethical implications of a situation. You'll also be able to apply the Code to real-life situations.

1–2 hours

Self-directed online module

Members: Free

NEW: Engineering climate action

Climate change poses significant challenges, opportunities and risks to consider in your work. This module will help you understand your responsibilities in addressing our changing climate through mitigation, transition and adaptation.

You'll get essential tools from our panel of climate change experts on initiating a call to action through a series of questions using a Circular Design Framework (CDF), gifted by Beca.

5.5 hours

Self-directed online module

Members: $350 Non-members: $400

Safety and wellbeing

Self leadership: stress management

This module introduces one of the aspects of self-leadership: stress management. You'll gain a practical understanding of what stress is, how it impacts your wellbeing and work, plus learn strategies to manage it.

1 hour

Self-directed online module

Members: Free Non-members: $75

Resilience and wellbeing

Are you struggling to balance your professional goals with your personal wellbeing? Too many engineers feel stressed, burned out and overwhelmed. Discover how to work in a flow state and create resilience to cope with and adapt to new situations.

"I thought the information provided was really useful. The host was very bubbly and a good presenter."

6.5 hours

Online

Julia Shallcrass

Members: $610 Non-members: $700

NEW: Self leadership: my health essentials

Engineers often face demanding challenges, tight deadlines and high-pressure environments that can lead to neglecting personal wellbeing. The consequences of sidelining health can be far-reaching.

In this online module, you'll discover practical strategies and evidence-based insights that will empower you to integrate the health essentials into your daily routine to enhance your professional performance and overall quality of life.

1–3 hours

Self-directed online module

Members: $195 Non-members: $225

NEW: Health and Safety at Work Act: an introduction for engineers

Engineers are the designers, project managers and reviewers of plant, substances and structures. This means you're in a pivotal position to influence health and safety and reduce the risk and severity of harm for end users.

In Aotearoa, the Health and Safety at Work Act 2015 outlines key concepts and obligations that engineers must work to. In this introductory module, you'll learn the key things you need to know to comply with the Act in your work.

1.5

Self-directed online module

Members: Free Non-members: $100

Communication

Time management for productivity

Effective time management is the key to your success as an engineer. In this course, find out how to balance competing priorities so you can complete work on time. Plus, discover proven time management tools and techniques to complete work with greater efficiency.

6 hours

Online

Julia Shallcrass

Members: $570 Non-members: $650

Essential business writing

Effective writing is a powerful tool for engineers. Learn how to write in plain English to attract more business and achieve better results for your clients. You'll get best practice tips on how to write concisely across different formats, including in your technical writing, tenders, reports and correspondence.

7 hours

Online

Julia Shallcrass

Members: $650 Non-members: $770

4.5 hours

Online

Piet Beukman

Members: $385 Non-members: $450

Specification practice for engineers

Learn best practice specification development and writing principles so that you, your clients and designers (hardware and software) can communicate technical requirements in a clear, unambiguous and structured way.

"A lot of great points, described and discussed in an entertaining and effective way that gets the point across. It's made me realise how vague language choice can be interpreted in ways that can make a large impact to the project and desired outcomes."

Technical report writing

Succinct technical reports make everybody's lives easier. This course will help you as an engineer and technical professional to sharpen your report writing skills so you can be confident you're presenting clear and concise reports that serve their purpose.

6 hours

Online

Julia Shallcrass

Members: $600 Non-members: $730

Perfecting your English

Perfecting your English is an online grammar course developed by Write – a world-class plain language consultancy. The course will help you to improve your English grammar skills, so you can write clearly in business English. It will also benefit you if English isn't your first language.

- 4 hours
- Self-directed online module
- $172.50

Constructing sentences: bulleted lists and diagrams

Succinct technical reports make everybody's lives easier. Technical engineering documents contain bulleted lists, numbered lists and various diagrams, tables and drawings, plus are often littered with acronyms.

Document layout tools are useful when used correctly but can be messy and alienating when used incorrectly. This webinar explains common pitfalls when using these tools and gives tips on how to avoid their pitfalls.

- 1 hour
- Recorded webinar
- Dr Giovanna Fenster
- $80

Constructing sentences: writing longer reports

Many engineers spend much of their working day writing reports. In this recorded webinar, you'll get the opportunity to consider longer reports, with particular focus on the executive summary, paragraph structure and on writing up recommendations and conclusions. You'll also learn how to deal with interruptions and distractions and how to avoid writer's block.

- 1 hour
- Recorded webinar
- Dr Giovanna Fenster
- $80

Constructing sentences: active and passive tense

Engineers and other technical writers often write only in passive tense, even though this sentence structure can lead to long, clunky sentences. There's also a tendency to run two or more sentences together into a single 'run-on' sentence. Run-on sentences or insufficient attention to active and passive tense can lead to grammatical errors and to meaning being lost.

In this recorded webinar, you'll learn about the two common problems with technical writing: insufficient attention to active and passive tense and the use of run-on sentences.

- 1 hour
- Recorded webinar
- Dr Giovanna Fenster
- $80

Constructing sentences: punctuation

Poor punctuation can lead to misunderstandings and to a perception that the writer is unprofessional. Yet many engineers have not been trained in the proper use of key punctuation marks.

In this recorded webinar, you'll learn all about punctuation and the use of commas, apostrophes, hyphens and dashes.

- 1 hour
- Recorded webinar
- Dr Giovanna Fenster
- $80

Dealing with conflict situations

We all encounter challenging situations that require us to have difficult conversations – whether with colleagues or clients. This webinar introduces simple techniques to help deal positively with these conversations.

"Sean was a great presenter who covered a lot of useful information in a short one hour session. I value making the most out of conflict situations and I think most people including myself could use some improvement."

- 1.5 hours
- Online
- Sean McLoughney
- $145

NEW: Communication fundamentals

Communication skills are essential in everyday life, and in business they're key to your success. Communication is more than just about talking – it's about listening, writing and nonverbal cues.

Learn the fundamentals and preparation tools for more effective communication, so you can feel more confident when communicating with your colleagues, clients and stakeholders.

- 1-2 hours
- Self-directed online module
- Members: Free Non-members: $90

Preparing for meaningful performance conversations

Performance management is a core practice in managing people effectively within any organisation.

This recorded webinar will help you get the best out of your performance review process, particularly the review meetings. It covers how to prepare fully for these important conversations to ensure that the conversations are beneficial and two-way – and that follow up actions are completed.

- 1.5 hours
- Recorded webinar
- Sean McLoughney
- $120

Presentation skills: structure and delivery

Are you nervous about delivering a presentation? Do you find it hard to write an impactful presentation or do you worry you won't engage your audience? Learn the 10 top tips to help you to prepare, structure and deliver an impactful presentation in this concise and useful webinar.

- 1.5 hours
- Recorded webinar
- Sean McLoughney
- $120

Strategic interactions and communication

This self-directed online module will delve into your communication style and how to strategically adapt it, depending on who you're interacting with. You'll learn preparation tools for important interactions to ensure they're constructive.

- 2 hours
- Self-directed online module
- $100

PROFESSIONAL COMPETENCY DOMAIN

Business and legal skills

Negligence and liability for engineers

Co-facilitated by an engineer and a lawyer, this course focuses on an engineer's potential liabilities and how you can best manage these in an ever-increasing litigious world. The course will consider the legal framework that you're required to operate within – and at a practical and technical level – what you need to do to manage your risk, both financially and reputationally.

"Relevant and gave real world examples that were relatable."

7.5 hours

Auckland and online

Stuart Meakins and Susan Thodey

Online
Members: $630 Non-members: $790

In-person
Members: $850 Non-members: $970

Employment law for managers

If you have staff responsibilities, this is your guide to employment law compliance. Find out how to meet your employment law obligations from hiring staff through to termination and everything in between.

7.5 hours

Online

Julia Shallcrass

Members: $730 Non-members: $770

Strategy for engineers

This course will present an overview of a practical and workable way of formulating a strategy for your business or venture that will work, by going beyond a mere 'tick a box' approach.

4.5 hours

Online

Piet Beukman

Members: $385 Non-members: $450

NZS 3910:2013 – an introduction

This course examines NZS 3910 from the perspective of the Engineer to the Contract and Engineer's Representative – who must perform a complex 'dual role' as adviser to and representative of the Principal – along with making decisions independently and impartially under the contract.

"Great content, effective presenter, felt like a productive use of time and I feel like I have a better understanding of NZ3910."

8 hours

Various

Gavin Shaw

Members: $850 Non-members: $970

NZS 3910:2013 – practical applications

This course follows on from NZS 3910:2013 – an introduction. You'll receive practical guidance on the administration of construction contracts from the perspective of the Engineer to the Contract. You'll learn how to issue instructions and variations, make decisions, review, approve or reject work and claims, issue certificates and what to do if you're involved in a dispute.

8 hours

Various

Gavin Shaw

Members: $850 Non-members: $970

NEW: NZS 3910:2023 – an introduction for engineers

NZS 3910:2023 provides a standard form of general conditions of contract to incorporate into construction contract documents.

In this self-led online module, you'll gain valuable insights into the most efficient and effective way of navigating this new Standard in the context of your engineering work.

You'll learn how to work with principals and contractors to quickly establish contractual arrangements that will deliver a wide variety of building and civil engineering projects.

You'll come away with the knowledge and tools to enhance your project's success, streamline collaboration and mitigate potential risks.

2–3 hours

Self-directed online module

Members: $295 Non-members: $340

Expert opinion: how to formulate and express it

Co-presented by a barrister and a building surveyor, this 1.5 day course will develop your ability to express your expert opinion in a confident and competent manner: understanding the status, obligations and legal and ethical requirements of an expert.

"The course covers material from both the legal and engineering perspectives that is very difficult to obtain anywhere else. The presenters are highly experienced and communicated clearly."

11 hours (1.5 day course)

Christchurch and Auckland

Matthew Sherwood-King and Dianne Johnson

Members: $1,680 Non-members: $1,800

NEW: Contract fundamentals

Most of the work you do will be regulated in some way by contract law. Your contract with your client determines your obligations to the client. In the course of your work, you may be managing or supervising contracts on behalf of a client, yet few engineers have any formal training in contract law.

In this module, you'll learn about the basic details of contracts, such as the requirements for a valid contract and entering into the contract.

2–3 hours

Self-directed online module

Members: $350 Non-members: $400

NEW: Temporary works: risk and awareness

This course looks at factors attributed to the safe design, construction, use, maintenance, and removal of temporary works. Useful to engineers and managers working in the construction sector, the course will cover New Zealand Law, industry good practice, procedural control, basic design theory and awareness modules for each of the most common forms of temporary works.

- 2–3 hours
- Self-directed online module
- Members: $295 Non-members: $340

Understanding finance

The purpose of this series of four webinars on understanding finance is not to turn you into an accountant, nor to make you an expert in finance. Rather, it's to help you understand the numbers better and what they are – and are not – telling you.

You'll gain an understanding of the different disciplines within finance, plus learn the challenges of the accounting process and the concepts that drive decisions about how to record transactions. You'll also learn the tools to read a balance sheet and the pitfalls to watch out for. Finally, they'll be a discussion on top-down analysis and what to consider when preparing your budget. Each of the four webinars is one hour in duration.

- 4 x one hour webinars
- Recorded webinar
- Susan Hansen
- $280

Site assessment fundamentals

This self-paced online module introduces you to fundamentals of site assessment and the implications of site conditions for a project.

The module uses a multidisciplinary lens through which to view a potential site. You'll receive core information across all disciplines so that each team member is able to understand the implications of site conditions, not just for their specialty area, but on the life cycle success of the overall project.

- 1.5 hours
- Self-directed online module
- $115

Asset maintenance and reliability

This course is presented in partnership with, and developed by Engineering Education Australia (EEA).

Adapt to the changing needs of your assets without compromising safety, environmental and business goals.

You'll learn the skills and knowledge to create strategies for maintenance and reliability across the lifecycle of your assets and facilities. You'll also get a run down on how to create a strategy using a fourth-generation asset maintenance and reliability system that improves performance and reduces costs.

- 8 hours
- Self-directed online module
- AUD$374.29 for Members

Collaborating and planning

Project management for engineers

Many practitioners who manage projects have never been formally exposed to the big picture of project management. This course aims to present structured, coherent and accepted best practice principles used to define, plan and execute projects.

"All the topics discussed were very interesting and I see it is very helpful to beginners in project management."

- 4.5 hours
- Online
- Piet Beukman
- Members: $385 Non-members: $450

Leading project management

Set yourself up for success. If you're responsible for managing or leading projects at a senior level or involved in large projects, this course is for you. You'll learn the skills needed to lead and manage your team as well as manage the technicalities of the project itself.

- 4.5 hours
- Online
- Piet Beukman
- Members: $385 Non-members: $450

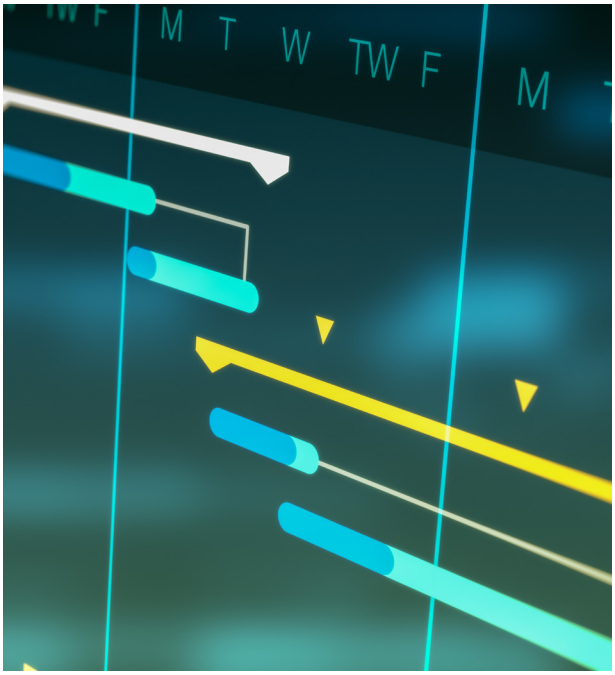
Enhancing project performance

This course is presented in partnership with, and developed by Engineering Education Australia (EEA).

As a project manager, you're responsible for delivering a successful project. To be a successful project manager, your results are measured on more than time, cost and budget requirements. You must also be an effective communicator and know how to assess risks at all stages of a project's lifecycle.

Enhance your experience as a project manager through this self-paced course by learning strategies to address common challenges that can affect a project's success.

- 8 hours
- Self-directed online module
- AUD$374.29 for Members



Risk management for engineers

Risk affects all people across all activities. In this course, you'll be introduced to a structured approach for the identification, planning, treatment, and management of risk in an engineering context.

- 4.5 hours
- Online
- Piet Beukman
- Members: $385 Non-members: $450

Systems thinking in engineering

This course is presented in partnership with, and developed by Engineering Education Australia (EEA).

Across all industries, we're seeing increasing complexity due to rapid shifts in technology, urbanisation, availability of information, scarce resources and the evolving connection between humans and machines.

Organisations are fast adopting systems engineering practices to respond to this fluid and fast-changing environment.

In this self-paced course, you'll learn how a systems engineering approach can help you understand and manage complexity and risk.

8 hours

Self-directed online module

AUD$374.29 for Members

The engineering and design life cycle

Master your role in the engineering and design lifecycle to improve safety, efficiency and communication at all stages.

From the moment a concept is designed until an asset is retired, the engineering and design lifecycle underpins your work. Whatever the scale, understanding the practical steps in the lifecycle is crucial to delivering value.

This self-paced course defines the steps in the lifecycle and provides essential need-to-know information for your career.

8 hours

Self-directed online module

AUD$374.29 for Members

Effective site visits, meetings and inspections: an engineer's guide

Traditional training for emerging professionals usually concentrates on the technical and contractual aspects of working on a site with relatively little time given to the personal skills required for successful outcomes.

This course is designed to provide emerging consulting engineers and project managers with tools and strategies to successfully deal with difficult and unexpected situations on site.

"Helps your mindset to adjust to the New Zealand engineering construction environment, and to efficiently and accurately undertake site inspections considering all the implications involved in the activity."

7.5 hours

Various

Stuart Meakins

Online
Members: $630 Non-members: $790

In-person
Members: $850 Non-members: $970

Communication stakeholder relationship management

In this webinar, you'll learn how to build key communication and influencing skills for managing stakeholder relationships successfully. The focus will be on how to operate in a proactive way, treating your stakeholders more as key customers – while analysing and responding to their needs. You'll also hear about the basic principles and core values of stakeholder engagement and why it's important to take responsibility for maintaining an ongoing dialogue with stakeholders.

1 hour

Recorded webinar

Bill Butler

$80

Career bootcamp webinar series

Great careers don't happen by chance – they are the result of hard work and commitment. It's important to take time to guide your career and move it forward. By managing your career, methodically and consciously, you'll make it work better for you.

The career bootcamp webinar sessions are based on Sean McLoughney's book – *Slave to a Job, Master of your Career* – which helps you to build a successful career by making yourself more marketable and career-focused.

- 4 hour
- Recorded webinar
- Sean McLoughney
- $280

Leadership

Time management – planning your day, week and month

This webinar will help you to focus on how to prioritise and schedule work activities to bring the highest return on your time and win back control of your day.

- 1.5 hours
- Online
- Sean McLoughney
- $145

New to managing a team – my next 100 days

If you've recently started your first management role or plan to move to management in the near future, this webinar outlines practical skills, techniques and priorities to establish your credibility and set you up for success.

- 3 hours (over 2 sessions)
- Online
- Sean McLoughney
- $300

10 habits of highly effective meetings

Meetings that have been poorly planned or run are frustrating and not a good use of time. Explore ways to run more productive and efficient meetings.

"Good course. Lots of practical ideas and tips."

- 1.5 hours
- Online
- Sean McLoughney
- $145

Leader's guide to performance management

This convenient online training course will teach you everything you need to know to move from technical expert to high-performing manager in four weeks. This course combines self-paced learning modules with online group coaching and Q&A sessions to suit all learning styles.

16 hours (four hours a week)

Online

Julia Shallcrass

Members: $1,190 Non-members: $1,290

Group fees
3 Members: $3,470 3 Non-members: $3,800
5 Members: $5,870 5 Non-members: $6,100

Manager's guide to HR – interviewing, performance, misconduct

Managing a team is rewarding, but there's a fair bit you need to know if you take on responsibility for staff. This three-week course is your practical guide to Human Resources for managing your team – from hiring to performance management and everything in between.

16.5 hours

Online

Julia Shallcrass

Members: $1,350 Non-members: $1,500

Interviewing skills for managers

Explore how to select quality candidates in this HR and managers guide to interviewing skills for new hires – so you can build the best and brightest team.

5.5 hours

Online

Julia Shallcrass

Members: $580 Non-members: $700

Giving feedback and performance reviews

Giving feedback is essential for developing top performers. This course focuses on how to give effective feedback and coach staff for success. Participants will explore how to conduct performance reviews and set goals for high-performing teams.

5 hours

Online

Julia Shallcrass

Members: $470 Non-members: $590

Managing poor performers and misconduct

Do you need a comprehensive guide to managing poor performance and investigating misconduct? This course will give you practical tools to follow performance management processes and conduct disciplinary meetings.

6 hours

Online

Julia Shallcrass

Members: $600 Non-members: $730

TECHNICAL COMPETENCY DOMAIN

General engineering

NEW: Implementing an effective engineering review framework

Effective engineering reviews are pivotal for successful project delivery. However, many organisations grapple with establishing a consistent process – leading to technical risks, expensive re-work, professional indemnity claims and potential harm to their reputation.

This intensive one-day course equips participants with a deep understanding of the components that constitute an effective review framework. By the end of the course, you'll gain the skills required to implement, manage and oversee this process within your organisation.

7 hours

Various

Rob Maszkowski

Online
Members: $630 Non-members: $790

In-person
Members: $850 Non-members: $970

1-2 hours

Self-directed online module

Members: $195 Non-members: $225

NEW: Load pathways

In your role as an engineer, you'll likely work with load pathways on a daily basis – and a refresher on the basics can go a long way.

In this module, you'll come away with refreshed knowledge on the basics of load path fundamentals. You'll get to look at struts, cantilevers and moment frames, plus analyse some real-life case studies to help put the theory into practice.

Practice-area specific

Piling

An introduction to energy piles

Energy piles offer the opportunity to make dual use of building foundations. As well as providing essential structural support to the overlying building, energy piles are also equipped with heat transfer pipes to allow the connection to a ground source heat pump system.

In this recorded webinar, you'll learn about the development of energy piles, including common construction practices and general working principles. You'll also hear about current barriers to uptake, plus examine ongoing research aimed at enabling more efficient design and testing.

1 hour

Recorded webinar

Dr Martin Larisch

$80

Pile design and analysis of single piles

This course will help practitioners from different backgrounds gain a deeper understanding of the most important aspects of pile design and provide an analysis of single piles.

7.5 hours

Auckland and online

Dr Martin Larisch

Online
Members: $630 Non-members: $790

In-person
Members: $850 Non-members: $970

Fundamentals of pile design in liquefiable and expansive soils

Learn about the fundamentals and principles of pile design. You'll hear about circumstances where the ground surrounding a foundation pile is subject to large deformations caused by either strength and/or volumetric changes of one or multiple soil layers.

"Presenter did a very detailed sharing of the subject matter. Presenter was both detailed with the theory and also reality which was good. Hence why I would recommend this course to other people especially if it's being shared by Dr Martin."

7.5 hours

Auckland, Canterbury and online

Dr Martin Larisch

Online
Members: $630 Non-members: $790

In-person
Members: $850 Non-members: $970

Drilling support fluids for bored piles

Drilling support fluids are used for the construction of bored piles by stabilising the temporary pile excavation.

In this recorded webinar, you'll be introduced to the basic working principles, the rheology and the most suitable ground conditions for each fluid type. You'll hear about construction and potential stability risks and their potential impact on pile performance.

1 hour

Recorded webinar

Dr Martin Larisch

$80

Defect bored piles

Concrete bored piles are commonly used for the foundation of buildings or structures like bridges, rail, airport or port facilities. In this webinar, you'll learn about the most common defects related to foundation elements of building and structures, the most common methods to assess such defects and you'll hear about remediation strategies for some of the most common defects.

1 hour

Recorded webinar

Dr Martin Larisch

$80

Pile integrity testing

Pile integrity testing is carried out to assess the shaft integrity of constructed piles on site. Piling is a 'blind' process and the visual inspection of the pile shaft after construction is rarely possible.

Different methods can be used for pile integrity assessments and the reliability and costs for these different methods can vary substantially, depending on pile types, sizes and the material of the pile shaft (e.g. steel, timber or concrete).

In this recorded webinar, you'll learn about the fundamental principles of the most common pile integrity testing methods, including the associated risks and limitations of each method.

1 hour

Recorded webinar

Dr Martin Larisch

$80

Pile load testing

Pile load testing is carried out to assess the performance of constructed piles on site and can be used to verify design assumptions.

In this recorded webinar, you'll learn about the fundamental principles of static pile load testing, including associated risks and limitations.

You'll also be introduced to the basic working principle of dynamic pile load testing, how the pile's load-settlement behaviour can be inferred and you'll hear about the use of pile driveability analysis in combination with dynamic pile load testing.

1 hour

Recorded webinar

Dr Martin Larisch

$80

Retaining walls

Gravity retaining walls

In this course, you'll be introduced to general concepts and principles of the design and construction of gravity retaining walls, such as reinforced concrete walls, block walls and crib walls.

"The course was a good overview and clearly demonstrated current design principles with sound sources and referencing."

7.5 hours

Auckland, Hawke's Bay, Canterbury and online

Dr Martin Larisch

Online
Members: $630 Non-members: $790

In-person
Members: $850 Non-members: $970

Embedded retaining walls

In this course, you'll be introduced to the general concepts and principles of the design and construction of embedded retaining walls such as sheet pile walls, soldier pile walls and timber pole walls.

7.5 hours

Auckland, Hawke's Bay, Canterbury and online

Dr Martin Larisch

Online
Members: $630 Non-members: $790

In-person
Members: $850 Non-members: $970

Waterproofing performance of deep basements

In this recorded webinar, you'll be introduced to the fundamental principles and concepts of waterproofing performance criteria for embedded retaining walls – employed for the construction of basements, shafts and other deep excavations.

1 hour

Recorded webinar

Dr Martin Larisch

$80

Stormwater

Stormwater management and design – an introduction

In this introductory course, you'll get an overview of modern stormwater management and practical applications of design associated with it. You'll hear about some of the common traps practitioners fall into – to help you avoid them in your own practice.

"Thanks for preparing the course Allan – younger engineers could appreciate more of this multi-disciplinary engineering thinking than just number crunching and getting the 'design' right."

8 hours

Auckland, Wellington, Bay of Plenty, Hawke's Bay, Canterbury, Nelson/Tasman, Manawatū, East Coast

Allan Leahy

Members: $850 Non-members: $970

The principles of stormwater treatment

This course introduces the principles of urban stormwater treatment. Learn about a range of stormwater treatment practices and consider their advantages and disadvantages for different applications.

8 hours

Auckland, Wellington, Bay of Plenty, Hawke's Bay, Canterbury, Nelson/Tasman, Manawatū, East Coast

Allan Leahy

Members: $850 Non-members: $970

Structural

NEW: Understanding structural behaviour

Structural engineers continue to be taught to approach analysis by numerical algorithms. This approach in many cases hinders engineers to develop the intuition and 'feeling' for the response of the structure to load, which is an essential skill for the structural engineer.

In this course, you'll develop an intuitive understanding of structural behaviour, to permit appropriate modelling of the structure prior to the computer analysis. You'll also develop the ability to assess and check the output without reliance on the traditional mathematical approach.

17 hours (2 day course)

Auckland, Wellington, Christchurch

Mark Moppett

Members: $1,400 Non-members: $1,600

Earthquakes

Quake Centre modules

Module 1: Fundamentals of earthquake engineering

This module is the first in a series of three designed to help you refresh and expand the knowledge and skills you gained during your degree or early career on earthquake engineering.

The module will highlight areas of practice that require careful thought, that you cannot always rely upon the Code to provide solutions for. You'll also gain an understanding of plate tectonics, plate boundaries, factors influencing the ground motions, source characteristics, path effects, site conditions and strong ground motion.

3.5 hours

Self-directed online module

$175

Module 2: Structural dynamic concepts for seismic design

In this second module, you'll receive an outline of the most important principles and analytical methods associated with dynamics of structures and an account of particular issues relating to seismic analysis. You'll get an introductory understanding of the dynamic behaviour of structures including:

- basics of structural dynamics
- dynamic response of single degree of freedom systems
- earthquake response of inelastic systems
- seismic load path and dynamic behaviour of multi-storey structure.

Please note: this module is not aimed at comprehensively teaching all concepts related to dynamic concepts for Seismic Design.

3.5 hours

Self-directed online module

$175

Module 3: Seismic design to New Zealand loading code

In this third module, you'll become familiar with loading and earthquake loading standards in New Zealand.

In the structural engineering profession, standards regulate the minimum performance criteria for the design of structures, in order to minimise their vulnerabilities to earthquake, wind and gravity loads.

New Zealand standards provide minimum requirements for design; however, it is an engineer's responsibility to design structures above these minimums, which typically sets the bar for the vulnerability level.

3.5 hours

Self-directed online module

$175

3 hours

Self-directed online module

$175

Low damage non-structural drywall design

This module has been developed by Quake Centre and summarises the seismic design of low damage non-structural drywall partitions for commercial multi-storey structures.

You'll learn about designing non-structural drywall partitions for commercial buildings. These partitions are typically the first elements to suffer seismic damage well before any structural damage occurs – resulting in economic losses and impacting seismic performance of buildings that structurally meet safety criteria.

Toka Tū Ake EQC Modules

Introduction to EQC and EQC Act

Te Ao Rangahau Engineering New Zealand hosts this unit on behalf of Toka Tū Ake The Earthquake Commission (EQC) – who developed the unit content.

You'll learn about the EQC Act and the natural disaster insurance cover it provides, as well as what natural disaster insurance Toka Tū Ake EQC provides.

- 45 minutes
- Self-directed online module
- Free

Understanding residential land

In this unit, you'll learn about residential land and what the EQC Act covers. You'll also consider appurtenant structures and why they are important when identifying the insured residential land, plus you'll review bridges, culverts and retaining walls alongside the conditions they must meet to be covered by EQCover.

- 45 minutes
- Self-directed online module
- Free

Residential land geotech assessment

In this unit, you'll explore the role of a geotechnical engineer – what to consider when assessing an EQCover claim (including for storm and flood damage), how to prepare for a site assessment, as well as considering how Schedule 3 of the EQC Act may be relevant.

- 1 hour
- Self-directed online module
- Free

Writing the geotechnical report

In this unit, you'll learn what information must be included in geotechnical engineering reports written for use in EQCover claims and how to avoid common mistakes in report drafting.

- 1 hour
- Self-directed online module
- Free

Complex assessments

In this training unit, you'll explore commonly encountered and challenging EQCover claims – to give you the opportunity to apply what you've learnt in the previous units.

These EQCover claims will be broken up into five scenarios asking questions on the claims – and you'll be provided with some model answers. You'll also receive information on who you'd need to discuss the claim with and you'll receive a real-life geotechnical engineering report.

- 1.5 hours
- Self-directed online module
- Free

Other

3D laser scanning for engineers

This webinar will introduce you to 3D laser scanning, where you'll learn from one of the most experienced laser scanning surveyors in New Zealand. You'll hear about scanning technologies and how they fit with drones and mobile mapping and you'll learn about point clouds, imagery and modelling.

1 hour

Recorded webinar

Mark Finlayson

$80

Crime prevention through environmental design (CPTED)

We've all been to places that feel unsafe. But what is it that gives us that uncomfortable feeling? Are we designing projects that will create unsafe spaces?

The principles of CPTED apply to a wide range of projects from town planning, building design to walkways and cycleways. Start the CPTED process early and reap the rewards.

This webinar looks at the principles of CPTED, with examples of how we can design spaces that reduce the risk of crime occurring.

1 hour

Recorded webinar

Andrew McDonald

$80

When to use FEA (Finite Element Analysis)

In this recorded webinar, you'll get to hear when and when not to use FEA (Finite Element Analysis).

Simulation add-ons to 3D Computer Aided Design (CAD) systems are inexpensive and fairly easy to use, but often these are not the fastest, cheapest or even the most accurate way to analyse your structures.

In this webinar, you'll learn about alternative ways to analyse your structures.

1 hour

Recorded webinar

Greg Morehouse

$80

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