WHAT YOU WILL LEARN:

- Gain advanced skills and knowledge civil and structural engineering principles that can be applied in a variety of workplaces
- Learn the essential underpinning knowledge that guides a range of projects, including road, rail and drainage systems, dams, harbours, bridges, buildings and other structures.
- Develop your practical skills in the design and drafting of engineering plans to international standards
- Enhance your skills in engineering management

KEY BENEFITS OF THIS PROGRAM:

- Receive practical guidance from civil and structural engineering experts with real world industry skills
- Gain credibility in your firm
- Develop new contacts in the industry
- Improve career prospects and income

Visit our website: www.eit.edu.au

**A note regarding recognition of this program in the Australian education system: IDC Technologies (sister company of EIT and Central Institute of Technology) are the joint copyright holders of this program. The program is officially accredited within the Australian Qualifications Framework by the Training Accreditation Council WA, and is approved by the Australian Skills Quality Authority (ASQA) for delivery and Assessment by EIT in all Australian states. EIT delivers this program to students worldwide.**
Introduction

Join the next generation of senior civil and structural engineering experts. Embrace a well paid, intensive yet enjoyable career by taking this comprehensive and practical program. It is delivered over 24 months by live distance learning and presented by some of the leading civil and structural engineering instructors in the world today.

Civil and structural engineering encompasses a range of disciplines, including road, rail and drainage systems, dams, harbours, bridges, buildings and other structures. Civil and structural designers and drafters plan, design, develop and manage construction and repair projects.

This qualification develops your skills and knowledge in the design and drafting of engineering plans to recognised standards. You will learn about different areas of civil engineering, including construction, project management, design and testing. You will also learn about the design and drafting of concrete, steelwork, roads and pipes, as well as hydrology, stormwater drainage and foundations.

While it is essential that those who work in the supervisory or management levels of this discipline have a firm understanding of drafting and planning principles, this qualification goes much further. To be effective on the job, you will need to know how to apply knowledge of fundamental civil and structural engineering concepts, including geotechnical engineering, hydraulic engineering, engineering maths, and properties of materials. Throughout the program this subject matter will be placed into the context of engineering management. Our aim is to ensure that you are an effective, knowledgeable and skilled supervisor or manager, someone who can work beyond a “plan and design” brief to ensure that a project is delivered effectively.

This qualification aims to provide theoretical and practical education and training such that graduates may gain employment at the engineering associate (“paraprofessional”) level within the building and construction industry.

There are eight threads in the program, delivered in 4 Stages, to give you maximum, practical coverage. These threads comprise environmental issues, engineering technologies, drawing, 2D and 3D CAD design, building materials, civil and structural sub-disciplines (roads, steel, concrete, pavement, drainage, soil, water supply, sewerage), construction sites and engineering management.

This program avoids too much emphasis on theory. This is rarely needed in the real world of industry where time is short and immediate results, with hard-hitting and useful know-how, are required as a minimal requirement. The instructors presenting this advanced diploma are highly experienced engineers from industry who have done the hard yards and worked in the civil and structural areas. The format of presentation — live, interactive distance learning with the use of remote learning technologies — means that you can hit the ground running and be of immediate benefit to your company or future employer.

Who Will Benefit

Anyone who wants to gain a solid working knowledge of the key elements of civil and structural engineering that can be applied at the supervisory and paraprofessional level. See “Entrance Requirements”

This program is particularly well suited for students for who on-campus attendance is less desirable than the flexibility offered by online delivery. When work, family and general lifestyle priorities need to be juggled this world class program becomes an attractive option to many students world-wide.

- Site Supervisors
- Senior Trades Managers
- Trades Workers
- Construction Managers

- Maintenance Engineers or Supervisors
- Leading hands
- Consulting Engineers

Even those who are highly qualified in civil and structural engineering may find it useful to attend to gain practical know-how.

EIT Program Delivery Methodology

Not all e-learning is the same. See why our live fully mentored methodology is so unique and successful.


VALUE plus!

As part of the incredible value we have built into this program, you also receive:

- Two places on any IDC Technologies public 2-day workshop*

OR

- Two places at any IDC Technologies conference [conference component only, excludes workshop if available]*

PLUS

- A library of 30 technical eBooks

All of this is valued at over US$5000!

You may also be eligible for a tax deduction on your personal income tax – contact your tax advisor for more information.

* to be used within 2 years of program enrolment and subject to availability. Your fee for this program must be up to date. The offer is for workshop or conference fee only and does not include travel, accommodation or other costs. EIT is not responsible for cancellation or postponement of IDC Technologies workshops and conferences. Please note: IDC workshops will only run should there be enough full paying registrations to cover costs. When registering for an IDC workshops or conference, please specify you are claiming the Value Plus offer. Other conditions may apply at our discretion.

"If you want to improve career prospects and be trained by excellent trainers with a thorough knowledge of the industry and train at your own pace then I would recommend this program.”

Gary Burrowes, BHPBillion

“This has been the best study process I have gone through and for advancing the career it is a must. The program content is extremely good and practical as I have baffled my engineers with some of the questions in the assignments making them question the content they actually studied.”

Henk Barnard
Accreditation & International Standing

EIT [and many of our individual programs] has received recognition, endorsement and/or accreditation as a training provider from authorizing bodies based around the world, including those listed below. Please ask us for specific information for your location.

AUSTRALIA
EIT is registered and accredited to offer both degree and vocational [diplomas and certificates] programs. EIT is authorized by the Australian Government Tertiary Education Quality and Standards Agency (TEQSA) as a Higher Education Provider (www.teqsa.gov.au/national-register with registration number PRV14008).

EIT is a Registered Training Organization [RTO] in the Vocational Education and Training [VET] sector – provider number 51971.

EIT is thus registered with and regulated by the Australian Skills Quality Authority (ASQA) and the Tertiary Education Quality and Standards Agency (TEQSA). ASQA is the national regulator for Australia’s vocational education and training (VET) sector. TEQSA is Australia’s independent national regulator of the higher education sector. They both regulate programs and training providers to ensure nationally approved quality standards are met.

Many of the programs offered by EIT are nationally accredited and recognized qualifications and are listed on training.gov.au [TGA] (for VET qualifications) or on the National Register [for Higher Education qualifications]. TGA is the official National Register of information on VET Training Packages, Qualifications, Programs, Units of Competency and Registered Training Organizations [RTOs]. EIT VET qualifications accredited to date can be viewed on EIT’s registration page on TGA under the “Scope” tab. You can find EIT on TGA by searching for our provider number – 51971.

The purpose of the Higher Education National Register is to be the authoritative source of information on the status of registered higher education providers in Australia. Information on EIT and our accredited higher education courses can be viewed at http://teqsa.gov.au/national-register/provider/prv14008.

Please note that many additional programs are also in the process of accreditation.

The Advanced Diploma of Civil and Structural Engineering is a nationally accredited and recognized qualification under the AQF. The Australian Qualifications Framework [AQF] is the national policy for regulated qualifications in the Australian education and training system.

This program is provisionally accredited by Engineers Australia. Pending full accreditation you may become a full associate member of Engineers Australia and your qualification will be recognised by Engineers Australia and via the Dublin Accord by leading professional associations and societies in Australia, Canada, Ireland, Korea, New Zealand, South Africa, United Kingdom and the United States. The Dublin Accord is an agreement for the international recognition of Engineering Technician qualifications.

This professional recognition greatly improves the global mobility of graduates, and offers you the opportunity of a truly international career. Members of Engineers Australia [EA] are entitled to claim CPD hours for private study, short programs, and learning activities at the workplace. CPD hours can be claimed for our programs in most cases, but we would always advise individual members to check with EA regarding specific programs.

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NEW ZEALAND
The New Zealand Qualifications Authority recognizes individual qualifications gained overseas on a case-by-case basis. Advanced Diplomas, for example, when registered at the time of award under the Australian Qualification Framework [AQF] are typically recognized as broadly comparable to a National Diploma at level 6 on the NZQF.

SOUTH AFRICA
The Engineering Council of South Africa (ECSA) which aims to promote a high level of education and training of practitioners in the engineering profession, has validated a large number of EIT programs. Members can check details on the ECSA website. South African students who successfully complete an EIT Advanced Diploma and other qualifications have the option to apply for recognition by SAQA, who have determined in the past that an Australian Advanced Diploma program is at Level 6 in the South African National Qualifications Framework (equivalent to Higher Diploma) in South Africa’s educational system. However, in most cases formal individual recognition by SAQA is not required as the international validity and accreditation of this credential is very sound.

UNITED STATES
IEEE is the world’s largest professional association advancing innovation and technological excellence. EIT is an IEEE Continuing Education Provider. IEEE Continuing Education Programs are peer-reviewed by content experts. This peer review guarantees both quality of the technical content of learning materials, as well as adherence to IEEE’s strict criteria for educational excellence. All programs that pass this strict process are entitled to award IEEE Continuing Education Units [CEUs], recognized as the standard of excellence for continuing education programs in IEEE’s fields of interest.

The International Society of Automation [ISA] is a leading, global, non-profit organization that sets the standard for automation around the world. ISA develops standards, certifies industry professionals, provides education and training, publishes books and technical articles, and hosts conferences and exhibitions for automation professionals. ISA has reviewed the curricula of the programs offered by EIT as they relate to the instrumentation, control and automation discipline and are enthusiastic about promoting their availability to the automation community.

UNITED KINGDOM
Nationally recognised qualifications that have been achieved at EIT can be compared by UK NARIC to the UK framework. UK NARIC is the UK’s national agency responsible for the recognition of qualifications from overseas and provides services for individuals and organizations to compare international qualifications against UK qualification framework levels. UK NARIC is managed by ECC/TIS Ltd (see http://www.eccitis.co.uk/naric/Default.aspx) which administers the service for the UK Government. Graduates of EIT’s Advanced Diploma programs in the UK can be confident that their international qualification has been officially evaluated as comparable to the BTEC/SQA Higher National Diploma [HND] standard/Foundation Degree Standard. A BTEC Higher National Diploma is at the same level of the National Qualifications Framework as NVQ/SVQ Level 4. Recognition will be at a higher level for graduate programs.

CANADA
EIT is a Participating Partner with the Engineering Institute of Canada [EIC] and EIT programs can be utilised by members to register for Continuing Education Units [CEUs]. EIC’s Continuing Education Program is supported by The Canadian Council of Professional Engineers, the Association of Consulting Engineers of Canada, and the Canadian Academy for Engineering. EIC is a member of the International Association for Continuing Education and Training, with headquarters in Washington, DC.

OTHER COUNTRIES
Students who successfully complete an EIT Advanced Diploma and other qualifications may be able to apply for recognition of their qualification within the local [home country] education system. Many countries have a process for “recognition of foreign qualifications” which is utilised by new residents when they have qualifications earned overseas. Although you will be studying from your home country you will be awarded an Australian qualification from the EIT, so your EIT qualifications may be able to be recognized as a “foreign qualification” if you apply through your local system. If you would like to find out more, please contact your local education authorities because it is not practical for EIT to know the systems that apply in all countries. However, in many cases formal individual recognition within the home country may not be required because the international validity and accreditation of this credential is very sound.

Members of other engineering organizations may be able to claim credit for professional development and are advised to check with their own organization.

For additional information please see http://www.eit.edu.au/international-standing.
PROGRAM STRUCTURE

This program is composed of 4 Stages, delivered over 24 months. It is possible to achieve the advanced diploma qualification within the time period because the study mode is part-time intensive. There are 8 threads around which the program is structured:

- Environmental issues
- Engineering technologies
- Drawing
- 2D and 3D CAD design
- Building materials
- Roads, steel, concrete, pavement, drainage, soil, water supply, sewerage
- Construction sites
- Engineering management

The Stages will be completed in the following order:

**STAGE 1:**

- **MEM16008A** Interact with computing technology
- **MEM16006A** Organise and communicate information
- **MEM30001A** Use [(CAD)] system to produce basic engineering drawings
- **MEM30002A** Produce basic engineering graphics
- **41972** Use basic construction in engineering
- **41980** Use physics in engineering
- **41981** Use statics in engineering
- **41978** Use materials in engineering
- **MEM22002A** Manage self in the engineering environment
- **41975** Use Basic Mathematics in Engineering

**STAGE 2:**

- **41968** Produce basic concrete drawings
- **41969** Produce basic steel drawings
- **41976** Use basic soils in engineering
- **41974** Use basic fluids in engineering
- **41983** Use surveying in engineering
- **41982** Use strength of materials in engineering
- **41979** Use Mathematics in Engineering
- **MEM30004A** Use [(CAD)] to create and display 3-D models
- **MEM22007A** Manage environmental effects of engineering activities

**STAGE 3:**

- **VU21137** Produce advanced engineering drawings for a reinforced concrete structure
- **VU21139** Produce advanced engineering drawings for a steel structure
- **VU21142** Produce drawings to enable urban road construction
- **VU21141** Produce engineering drawings for a rural road
- **41962** Use soils in engineering
- **41987** Use fluids in engineering
- **41960** Use basic structural analysis in engineering
- **41963** Use structural analysis in engineering
- **41984** Use 3D CAD in engineering

**STAGE 4:**

- **VU21125** Apply construction principles to civil engineering works
- **VU21143** Produce engineering drawings for a stormwater reticulation scheme
- **VU21133** Produce an engineering design for a sewerage reticulation scheme
- **VU21131** Produce an engineering drainage design of pipes and culverts
- **VU21134** Produce an engineering design for a reinforced concrete structure
- **VU21122** Produce an advanced engineering design for a reinforced concrete structure
- **VU21135** Produce an engineering design for a steel structure
- **VU21123** Produce an advanced engineering design for a steel structure

Presentation Format

The program features real-world applications and uses a blended approach involving interactive on-line webinars, simulation software and self-study assignments with a mentor on call.

The program consists of 36 units delivered over a period of 24 months. Presentations and group discussions will be conducted using a live, interactive software system. For each unit you will have an initial reading assignment (which will be delivered to you in electronic format in advance of the online presentations). There will be coursework or problems to be submitted and in some cases there will be practical exercises, using simulation software and remote labs that you can easily do from your home or office.

You will have ongoing support from the instructors via phone, fax and e-mail.

Live Webinars

During the program you will participate in live interactive sessions with the instructors and other participants from around the world. Each webinar will last approximately 60 to 90 minutes, and we take student availability into consideration wherever possible before scheduling webinar times. Contact us for details of webinar session scheduling. All you need to participate is an adequate Internet connection, speakers and a microphone. The software package and setup details will be sent to you prior to the program.

Prior Learning Recognition and Exemptions

EIT can give you full or partial credit for units where you can demonstrate substantial prior experience or educational background. An assessment fee may apply. If you wish to find out more please ask us for your copy of the policy for recognition of prior learning.

Time Commitment for the Program

You will need to spend an estimated 8-15 hours per week. This includes the reading of the material prior to your attendance at each hour webinar (45 minutes with 15 minutes for discussion) and the time needed to complete assignments for submission. This time would be required to ensure the material is covered adequately and sufficient knowledge is gained to provide sound, enduring and immediately useful skills in engineering. EIT operates almost all year long, so your studies will continue most weeks of the year to enable you to achieve the qualification in an accelerated time period when compared to a traditional semester-based system.
Practical Exercises, Remote Labs and Assignments

You will participate in practical exercises using a combination of remote laboratories and simulation software, to ensure you get the requisite hands-on experience. This will give you a solid practical exposure to the key principles covered in the program and ensure you are able to put theory into practice.

As research shows, no matter how gifted and experienced an instructor (and we believe ours are some of the best worldwide), no one learns from an instructor only presenting program materials to them in a lecture format. It is only by the additional activities of hands-on exercises using simulation software, remote laboratories, practically based assignments and interactive discussion groups with both your peers and the instructor that you are able to internalize this knowledge, “take ownership of it” and apply it successfully to the real world. You should note that there is some degree of overlap between the practical sessions between the different units to reinforce the concepts and to look at the issues from different perspectives.

Traditional distance learning thus presents challenges in achieving these goals but we believe today with the modern e-learning technologies available combined with outstanding instructors that we can achieve these goals and give you an equivalent or indeed even better experience than on a traditional university campus. Practical sessions may be added, deleted or modified by the instructors to ensure the best outcome for students.

About the Engineering Institute of Technology (EIT)

The key objective of the Engineering Institute of Technology (EIT) is to provide an outstanding practical engineering and technology education, from Diplomas to Master degrees and beyond. The finest engineering instructors, with extensive real engineering experience in industry, are drawn from around the world. The learning is gained through synchronous, online (e-learning) technologies.

EIT offers awards in a growing array of engineering fields. With the internationalization of education, EIT ensures approval from a growing list of reputable accreditation agencies.

Many (perhaps, most) engineering faculties at universities and colleges experience a significant challenge delivering the program-work affordably and with excellence. EIT achieves this using online based education – economical class sizes are attainable, international experts are engaged to instruct and remote laboratories and simulation software are employed.

EIT is a sister company of the well known and reputable engineering training organization, IDC Technologies. IDC has been operating for over 20 years, from offices throughout the world, delivering practical short programs to well over 500,000 engineers and technicians.

About the Central Institute of Technology

As one of Australia’s largest training institutes, Central Institute of Technology trains more than 29,000 students annually, including 1300 international students. For the second year in a row, Central has been awarded International Training Provider of the Year at the West Australian Training Awards.

Central offers around 400 nationally accredited training programs across a wide variety of training areas and is the primary deliverer of higher-level technical and professional qualifications within the State. Over the years, Central has developed strong connections with industry and business, ensuring that our programs remain relevant and responsive to existing and emerging industry requirements.

Members of the Central community are spread across five campuses. Our students and staff come from a variety of backgrounds and cultures creating a dynamic learning and social environment. Central’s Governing Council members, instructors and staff have extensive industry backgrounds, adding further guidance and direction to the development of our programs.

A Partnership to Bring Students the Best

This online advanced diploma is the first program to be offered in a partnership of EIT and Central Institute that will see world-class training made available to a very large international student base, with no on-campus attendance required. Students will benefit from the combined strength of both Institutes, with access to some of the best instructors and program materials.

For more information or to apply, please contact us at enquiries@eit.edu.au

Why EIT?

• Our instructors are selected and recruited from amongst the top engineers/instructors in their field - worldwide. These instructors are highly skilled at presenting challenging concepts and ideas to students of varying levels and abilities.

• As shown in the detailed program prospectus, the programs are aimed at practising professionals giving hard-hitting practical know-how relevant to today’s market and is aimed at people working in industry. We design and select Case Studies and practical exercises in the program based upon real-world business requirements. Feedback from the tens of thousands of students we have trained over many years has allowed EIT a unique understanding of real world business requirements and we have tailored the program accordingly.

• We have experience in training over 500,000 engineers and technicians throughout the world and have built up a library of outstanding reference materials which focus on what engineers and technicians need in their work today in industry and mining. The value of these references is considerable and they are a great asset to industry professionals. These reference materials are included in the cost of the program.

• The program content is challenging and designed for engineers and technicians already working in industry. We assume a general understanding of the demands of the workplace. A student without practical experience would be unsuited to the program.

We are Flexible with your Commitments

We recognise that personal circumstances can make it difficult to complete the program in the time available. We will be flexible about the time you require to complete the program. You can “pause and restart” by joining a subsequent intake (a rejoining fee may apply). We will allow up to 3 years from your original start date to complete the program.

You can withdraw from the program at any time and receive a Statement of Attainment for the units you have completed. However, completion of all units will earn you the EIT Advanced Diploma of Civil and Structural Engineering.
Benefits of Live eLearning

- Attend lessons in a live, virtual classroom with your instructors and fellow students
- Upgrade your skills and refresh your knowledge without having to take valuable time away from work
- Receive information and materials in small, easy to digest sections
- Learn from almost anywhere - all you need is an Internet connection
- Have constant support from your program instructors and coordinator for the duration of the program
- Interact and network with participants from around the globe and gain valuable insight into international practice
- Learn from international industry experts
- Live interactive webinars, not just a 'book on the web'
- Receive an Advanced Diploma of Civil and Structural Engineering

Comprehensive eBooks and Associated Documentation

All students are provided with password access to the program website in the first week. Here you will be able to download specific (guided) reading and other learning materials for each Section. In addition students will receive a selection of our up-to-date technical eBooks to add to or build your own professional reference library. Together these reference works contain thousands of pages of know-how distilled from years of experience.

1. Structural Design for Non-Structural Engineers
2. Designing, Specifying and Constructing with Modern Concrete
3. Hazardous Waste Management and Pollution Prevention
4. Best Practice in Sewage and Effluent Treatment Technologies
5. Transportation Planning and Management
6. Electrical Drawings and Schematics
7. Practical Energy Efficiency, Design and Auditing
8. Understanding Electrical Engineering and Safety for Non-Electricians
9. Pumps and Compressors: Control, Operation
10. Heating, Ventilation and Airconditioning (HVAC)
11. Hydraulic Systems
12. Practical Safe Lifting Practice and Maintenance
13. Machinery and Automation Safety for Industry
14. Practical Mechanical Seals - Selection, Maintenance and Troubleshooting
16. Practical Fundamentals of Pneumatics: Operation and Troubleshooting for Engineers and Technicians**
17. Practical Financial Fundamentals and Project Investment Decision Making
18. Project Management for Engineers
19. People Management Skills
20. From Engineer to Leader
21. The Practical Business Engineer
22. Leading Your Engineering Team to Top Performance
23. Train the Trainer: Presentation and Instructing Skills for Engineers and Technical Professionals
24. Hazardous Areas
25. Practical HAZOPS for Engineers and Technicians
26. E-Manufacturing and Supply Chain Management

Please Note: Students who choose to pay upfront will receive all 26 eBooks in advance. If you opt to pay by installments you will receive eBooks periodically throughout the program. eBooks are available in hard copy at 50% of the recommended retail price for current and past students. Contact us for pricing details.

Entrance Requirements

This Engineering Institute of Technology advanced diploma is an accelerated, practical, work-oriented program. It is designed for engineers and technicians who have some background in the field. This includes those who have technical or 'trade' qualifications who want to move to the next career step, those with substantial relevant work experience who need to formalise and enhance their achievements, and those with higher level qualifications in a related field who wish to develop specialist knowledge. Practical work experience in related areas of engineering would help enormously. EIT’s on-line learning is interactive and engaging. Despite this fact, a high level of self discipline is required for success. In general mature-age students are well-motivated and will adapt well to the requirements of on-line learning. Younger students are welcome to apply but should be confident of their ability to remain focused over the two year duration of the program and beyond.

Advanced Diploma Preparation Program

If you are unsure if you have a strong enough grasp of the fundamental knowledge required for this program, or you simply want to refresh your skills and experience e-learning in a shorter program, we recommend that you consider EIT’s engineering studies preparation program. This intensive 4-month program covers the fundamentals of engineering maths, physics and chemistry. Please ask your advisor for the brochure.

On completion of this program, 50% of the program fees can be used as a credit towards your fee for an EIT Advanced Diploma program.

Hardware and Software Requirements

All you need in order to join the webinars once registered for the program is an adequate internet connection, PC, speakers and a microphone. The software package and setup details will be sent to you prior to the program.

Program Fees

Your program fees include weekly webinars with leading engineering and technical experts, 26 technical eBooks, all program materials, software and postage, plus assessment and support from the program coordinators and instructors. We provide payment options and can accept fees in a variety of currencies. Please contact your advisor for fees in an appropriate currency for your location.
WHAT OUR STUDENTS HAVE TO SAY

QUOTES FROM PAST STUDENTS on a recent EIT survey to the following question:

What made you choose an EIT program(s)?

“Good reputation, had attended good full-time programs previously.” Worley Parsons

“Program facilitator CV, ...reputation, e-learning flexibility.” SMK, New Zealand

“Content tends to practical and targeted.” MIPAC, Australia

“Non-vendor specific training and lower program costs with online training capabilities.” Worley Parsons

“The content of the program and the way the program was broken down were the key factors.” GEA Group

“I can do those programs at my own free time which made it more convenient for me.” Iluka, Australia

“Content was applicable to my job and industry. Taught by industry experts not academics. E-room delivery mode. Accreditation in various nations.” Sanofi Pasteur, Australia

“Because it is specialist, and so many available programs.” Kacst, Saudi Arabia

“Covered all my criteria and gave me recognised qualifications on completion.” Netafirm

“I took a previous program, IDC [sister company] is professional.” Cat Group

“I have done other programs with IDC [sister company] and was happy with the service provided.” GHD

“Had completed programs previously. Good content.” Woodside

“I understood from friends that it is good quality.” Rio Tinto

“Better choice of topic.” Rockwell RA

“Believed to be good quality based on previous training programs I have done in person.” BHP Billiton, South Africa

“It was referred to me by a colleague and I have attended seminars run by IDC before. The program that I am currently enrolled in also had all the outcomes I was looking for to further my career.” Rio Tinto

“The program content was relevant to my work environment and practical.” Alcoa

“I have done a few IDC programs in the past and found them to be very good and delivered by people with practical knowledge of the subjects.” Kalgold

“It provides good online program delivery including its quality support structures.” OneSteel

“Program interest and content.” ABB, Australia

“The fact the I could do it online and it was in line with furthering my knowledge for work.” CAED, Australia

“It ticked all the boxes ... quality, suitability, depth, length.” Powerco, New Zealand

“Better choice of topic.” Rockwell RA

“Program was visible and relevant.” Schneider Electric, UK

“Convenience.” Rio Tinto

“To be perfectly honest with the small amount of research on various programs I did the programs are generally the most relevant to my area of work. That’s not to say they are perfect but they seem to be superior to others readily available in this part of the world.” WEL Networks, New Zealand

“Program content seems practical and applicable. I already have a BSc where the focus is on the theory.” BHP Billiton, South Africa

“Industry recognition and recommendation by colleagues.” Rio Tinto

“Seemed the most convenient option, and it was!” CPIT, New Zealand

“Program content ease of study option.” Nestle, South Africa

“The content of the program made up my mind.” Transportadora de gas del Norte, Argentina

“Their programs are standard and program material as well as lecture are okay.” Shell, UK

“Its international recognition with body endorsing certification. Easy to attend lessons after work hours. Easy way of program payment.” Kinyara Sugar Ltd, Uganda

“The most practical and technical offerings by the most qualified instructors for distance learning.” Encana Natural Gas

“On line references, price, and various time frames available to sit in on the class. Also, one more important item was being able to converse with the instructor and class instead of working totally on my own.” Mitchell Technical Institute

“Program content. Accreditation of the training institution. Cost.” MODEC

“Offer the correct program, timing and affordable cost.” Folec, Brunei

“Possibly the most recognised online institution within my industry.” DRA, South Africa
Frequently Asked Questions

What are the advantages of studying online?

We know that many potential students have part or full-time employment as well as family commitments, so finding the time to study a classroom-based program is not always possible. Many students also have geographical, travel and time limitations and do not have an accessible institution or training provider. We have taken this into consideration and developed an affordable, flexible, online approach to training. This means that you can study from anywhere, with minimum downtime from work – but still have the necessary interactive learning experience. The software we use does not require very fast internet connection or a sophisticated computer. A basic connection and hardware are sufficient.

What are the fees?

EIT provides distance education to students located almost anywhere in the world – it is one of the very few truly global training institutes. Program fees are paid in a currency that is determined by the student’s location. A full list of fees in a currency appropriate for every country would be too complex to list here and, with today’s exchange rate fluctuations, difficult to maintain. To find out the fees for your location, contact us at enquiries@eit.edu.au.

What do I need?

An adequate internet connection, speakers and a microphone. A headset is recommended. The necessary software and program materials are provided by us.

Doesn’t it get boring? How can an e-Learning program be interactive?

Boredom can be a real risk in any form of learning; however, we use an interactive approach to our e-Learning – with live sessions [instead of recordings] for most presentations. The webinar software allows everyone to interact and involves participants in group work, including hands-on exercises with simulation software and remote laboratories where possible. You can communicate with text messages, or live VoIP speech, or can even draw on the whiteboard during the sessions. This all helps to keep you motivated and interested.

What do live webinars involve?

These are live, interactive sessions over the Internet. You will join the instructor and other participants from around the world in an online ‘virtual classroom’ where you are able to watch a presentation, and communicate with the instructor and other students via audio, text messaging or drawing on the whiteboard. Each webinar is between 60 and 90 minutes in duration and the sessions may be scheduled at 2 or 3 different times times, depending on class size, during the presentation day. This allows you to select the session which is most convenient.

What if I cannot join or I miss a live webinar?

Webinars are recorded and available to students upon request. One requirement of the program is that you join at least 70% of the live sessions. The live webinars offer the opportunity to interact with the instructor and other participants from around the globe - an essential yet enjoyable part of the learning process. Circumstances such as on-site work can make attendance difficult at times. These situations need to be clearly communicated with your e-learning coordinator. Feedback from the recordings may be required and assignment submission maintained.

When will the sessions take place? When will I receive a webinar schedule?

The webinar schedule is not put together until after registrations close. The reason for this is that the program is promoted globally and we often have participants from several time zones. When you enrol you will receive a questionnaire which will help us determine your availability. When all questionnaires are returned we create a schedule which will endeavour to meet everyone’s requirements. Each webinar may run 2 or 3 times depending on class size during each presentation day and we try our best to ensure that at least one session falls into your requested time frames. This is not always possible, however, due to the range of locations of both instructors and students. If you are unable to attend the webinars scheduled, we do have some options available. Contact the EIT for more details.

Can I complete the program in less time?

Our programs actually require ‘attendance’ and participation at the live webinars. The interaction which takes place is an important part of the learning process. Our experience has shown that the interactive classes work exceptionally well and students are far more likely to stay motivated, enjoy the program, and complete the program successfully. See also ‘What if I cannot join or I miss a live webinar?’ In addition, accelerating the program would be quite onerous for most students.

How much time do I need? How long is the program?

The program reading and assignments may consume anywhere from 8 to 15 hours per week. This will vary depending on the program subject matter and your existing knowledge.

EIT does not use a traditional semester-based system, which means that you can complete the qualification faster without long breaks. This advanced diploma program is delivered over an intensive 24 months. We do break for about 4 weeks per year for traditional festve seasons.
MEM16008A*
Interact with Computing Technology

Overview
This unit covers accessing, inputting and storing information used in manufacturing, engineering or related environments, using computing technology. This unit applies in manufacturing, engineering or related environments. It involves identifying the type and source of information required, and using the technology to access, input and store information. The equipment may include computers and a range of other equipment based on computing technology.

You will learn how to:
1. Determine job requirements
2. Access information/data
3. Input information/data
4. Store information/data
5. Access assistance as required

MEM16006A*
Organise and Communicate Information

Overview
This unit applies in manufacturing, engineering or related environments. It may include information related to production, maintenance or associated processes. Information may be drawn from a variety of sources. This unit includes the ability to communicate using common workplace terminology.

You will learn how to:
1. Access information and/or records
2. Organise and analyse information
3. Communicate organised information using established workplace methods

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MEM30001A*
Use CAD Systems to Produce Basic Engineering Drawings

Overview
This unit covers producing basic engineering drawings using a CAD system, under the direction of a supervisor.

You will learn how to:
1. Prepare the CAD environment
2. Produce a basic drawing
3. Modify existing CAD drawings
4. Produce output
5. Perform exit and shut-down procedures

MEM30002A*
Produce Basic Engineering Graphics

Overview
This unit looks at producing drawings or similar graphical representations where the critical dimensions and associated tolerances and design specifications are predetermined.

You will learn how to:
1. Identify drawing requirements
2. Prepare assembly, layout and general drawings in accordance with instructions
3. Draw sections through simple engineering components as required for clarity
4. Select physical dimensions from manufacturer handbooks
5. Prepare engineering parts list
6. Issue or file completed drawing/parts list

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41972

Use Basic Construction in Engineering

Overview
This unit provides knowledge and understanding of engineering construction terms, structural components, component elements and material type and suitability for the construction of low rise buildings.

You will learn how to:
1. Identify the relevant Australian standards, codes and regulations required for the design and construction of low-rise buildings
2. List the relevant authorities involved in the approval of buildings and building services for low-rise construction
3. Identify the site characteristics of a building allotment relevant to the design and construction of low-rise buildings
4. Identify structural components and their elements of low-rise buildings and describe the function of each component
5. Identify and describe materials used in the construction of low-rise buildings and outline their suitability for the task
6. Outline the relevant Occupational Health and Safety rules and regulations

41980

Use Physics in Engineering

Overview
This unit looks at problem solving involving linear motion, momentum, impulse, forces, work, energy, power, friction, heat transfer, thermal expansion, atomic model basic electricity and the conducting and reporting on experiments.

You will learn how to:
1. Use consistent units systems for the measurement of quantities
2. Use scalar and vector analysis in engineering problems
3. Solve problems involving linear motion
4. Solve problems involving momentum, impulse and force
5. Solve problems involving work and energy
6. Solve problems involving temperature and heat
7. Describe the atomic model of matter and solve problems involving electric circuits
8. Perform, report and assess laboratory experiments
41981*
Use Statics in Engineering

Overview
This unit looks at problem solving involving forces on statically determinate structures.

You will learn how to:
1. Determine reactions to structures and / or parts of a structure
2. Determine forces in members of a truss
3. Construct shear force diagrams for loaded beams
4. Construct bending moment diagrams for loaded beams
5. Determine the stress and strain in structural members

41978#
Use Materials in Engineering

Overview
This unit covers the mechanical properties of a variety of materials used in civil engineering.

You will learn how to:
1. Determine properties of materials established from a tension test
2. Determine properties of materials established from shear, hardness or impact tests
3. Determine the properties of concrete in the plastic and solid states
4. Determine the properties required to grade a piece of timber
5. Determine the properties of bitumen relevant to facilitate placement
6. Use NDT techniques to diagnose flaws in materials
MEM22002A*
Manage Self in the Engineering Environment

Overview
This unit covers performing work ethically and competently, making judgements about work priorities and information requirements to achieve effective working relationships and engineering outcomes.

You will learn how to:
1. Manage self
2. Work effectively with team
3. Manage information
4. Manage work priorities and resources
5. Facilitate and capitalise on change and innovation
6. Establish and maintain business relationships

41975*
Use Basic Mathematics in Engineering

Overview
This unit covers elementary concepts of mathematics appropriate to engineering situations.

You will learn how to:
1. Use fundamental techniques in arithmetic, measurement and mensuration
2. Use fundamental techniques in geometry
3. Use fundamental concepts in algebra
4. Use quadratic equations and their graphs in problem solving
5. Use right triangle trigonometry to solve applied problems
Stage 2

Duration: 24 Weeks

41968*

Produce Basic Concrete Drawings

Overview
This unit covers producing reinforced concrete design drawings of structural concrete elements in a structure.

You will learn how to:
1. Use data from relevant standards, detailing manuals and current local practice in the production of reinforced concrete drawings related to the proper placement of reinforcement
2. Draw outlines of concrete structural elements using design detail views
3. Identify, label and dimension reinforcement
4. Draw various bar types, bends, standard hooks, and standard bar shapes
5. Within a drawing, display and define bars and fabric in their correct relationship, both with other reinforcement and other concrete elements of a structure, whilst maintaining correct cover requirements
6. Use an appropriate marking system for the purpose of identifying steel reinforcement
7. Prepare steel reinforcement bar bending schedules and calculate steel quantities
8. Determine the appropriate splice lengths and anchorage lengths to satisfy various conditions

41969*

Produce Basic Steel Drawings

Overview
This unit looks at producing steel design drawings.

You will learn how to:
1. Use Steel Sections Handbooks in the identification of steel members and derivation of dimensions
2. Draw structural steel line diagrams
3. Draw detail views of structural steel connections, given basic design information and data from relevant standards
4. Specify appropriate protective coatings
5. Specify structural and high strength bolts

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41976#
Use Basic Soils in Engineering

Overview
This unit provides an understanding of the engineering properties of soils and to carryout appropriate soil tests.

You will learn how to:
1. Classify soils according to Standards Australia Code
2. Examine and discuss both theory and tests related to soil compaction
3. Examine and discuss both theory and tests related to soil plasticity
4. Classify soil permeability and subsurface water

41974#
Use Basic Fluids in Engineering

Overview
This unit covers problem solving relating to fluids involving hydrostatics, conservation of energy and conservation of momentum.

You will learn how to:
1. Relate fundamental properties to fluid characteristics
2. Solve manometer problems
3. Use the energy approach to solving flow measurement problems
4. Solve impact of jets type problems

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41983®
Use Surveying in Engineering

Overview
This unit looks at current survey equipment to perform basic measurement and layout tasks on construction sites.

You will learn how to:
1. Perform levelling traverse procedures
2. Determine bearings for the sides in a traverse
3. Observe short distances to industry standards for engineering surveys
4. Perform detail surveys using the grid levelling method
5. Perform simple detail surveys using industry survey equipment
6. Produce and interpret simple site plans
7. Set out works using simple plans

41982®
Use Strength of Materials in Engineering

Overview
This unit examines stresses and deformations in selected components using the principles of strength of materials.

You will learn how to:
1. Design a bolted joint
2. Design a welded joint
3. Determine the required wall thicknesses of thin walled pressure vessels
4. Design shafts to transmit a torque
5. Design beams for flexural strength and deflections
6. Determine thermal stresses in restrained members

STAGE 2
**41979**

*Use Mathematics in Engineering*

**Overview**

This unit covers concepts of mathematics appropriate to engineering situations.

**You will learn how to:**

1. Use exponential functions and their graphs
2. Use logarithmic equations and their graphs in problem solving
3. Solve problems involving oblique triangles, trigonometric identities, equations and graphs based on circular function definitions, using both degrees and radians
4. Perform operations with matrices and determinants and solve practical problems involving matrices
5. Apply elementary calculus techniques

**MEM30004A**

*Use CAD to Create and Display 3D Models*

**Overview**

This unit covers using a CAD program to produce and plot basic three dimensional view drawings.

**You will learn how to:**

1. Set up a three dimensional environment
2. Create three dimensional views
3. Display three dimensional views
4. Extract mass and area properties of a 3D model
5. Apply basic rendering techniques to a 3D model
6. Save completed drawing file in various formats

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**STAGE 2**

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MEM22007A*
Manage Environmental Effects of Engineering

Overview
This unit examines environmental issues and determine environmental strategies associated with engineering work.

You will learn how to:
1. Determine the existing environmental condition
2. Establish stakeholders' expectations
3. Review existing environmental conditions against stakeholders' expectations
4. Develop and rank strategies to achieve sustainable development
5. Implement strategies to achieve sustainable development
VU21137##
Produce Advanced Engineering Drawings for a Reinforced Concrete Structure

Overview
This unit sets out the knowledge and skills required to complete advanced reinforced concrete drawings.

You will learn how to:
1. Identify reinforced concrete structure to be drawn
2. Plan drafting approach
3. Complete the drawings
4. Compile, document and present results

VU21139##
Produce Advanced Engineering Drawings for a Steel Structure

Overview
This unit of competency sets out the knowledge and skills required to complete typical structural steel drawings in accordance with accepted practice as outlined in AS1100.501 and AS4100.

You will learn how to:
1. Identify steel structure to be drawn
2. Plan drafting approach
3. Complete the drawings
4. Compile, document and present results

**STAGE 3**

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STAGE 3

**STAGE 3 CONTINUED**

**DURATION: 24 WEEKS**

### Produce Drawings to Enable Urban Road Construction

**Overview**
This unit of competency sets out the knowledge and skills required to complete typical road drawings required in the construction of urban roads, to the standards of AS 1100.401.

**You will learn how to:**
1. Identify urban road project to be drawn
2. Plan drafting approach
3. Complete the drawings
4. Compile, document and present results

### Produce Engineering Drawings for a Rural Road

**Overview**
This unit of competency sets out the knowledge and skills required to complete typical road drawings required in the geometrical layout of rural roads, to the standards of AS1100.401.

**You will learn how to:**
1. Identify rural road project to be drawn
2. Plan drafting approach
3. Complete the drawings
4. Compile, document and present results

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**VU21142**

**VU21141**

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Use Soils in Engineering

Overview
This unit provides an understanding of the engineering properties of soils and to carry out appropriate soil tests.

You will learn how to:
1. Determine soil pressure on retaining walls
2. Determine shear strength of soils
3. Perform soil slope stability calculations
4. Determine methods of soil stabilization
5. Describe piled footings
6. Examine and discuss the methods used for site investigations

Use Fluids in Engineering

Overview
This unit covers problem solving relating to water flow in open channels and/or pipes.

You will learn how to:
1. Calibrate various weirs and notches
2. Determine flow rates in an open channel
3. Solve stability problems for floating objects
4. Determine the friction losses in a pipe network
5. Determine forces on submerged plates
6. Select pumps for a given fluid system
41960

Use Basic Structural Analysis in Engineering

Overview
This unit examines how to determine the internal actions in structural systems.

You will learn how to:
1. Use the moment distribution method to determine internal actions of a loaded statically indeterminate structural system
2. Use the direct (matrix) stiffness method to determine internal actions of a loaded statically indeterminate structural system
3. Use a structural analysis computer program (e.g., SPA CE GASS) to determine internal actions of a loaded statically indeterminate structural system
4. Use techniques in Australian codes to determine second order effects on the above hand calculations

41963

Use Structural Analysis in Engineering

Overview
This unit looks at deflections of and stresses within structural members subject to design loads.

You will learn how to:
1. Apply the limit state approach to design of structural members
2. Determine the ultimate flexural capacity of a member with a rectangular cross section
3. Use an integration method to determine the deflection of structural members
4. Use the virtual work method to determine deflections at specific points on a structural member
5. Calculate principal stresses at specific points in a structural member and hence predict structural adequacy
6. Predict the behaviour of a compression member
Use 3D CAD in Engineering

Overview
This unit explains:
- Using the 3D modeling commands in a standard CAD software package to produce various types of 3D models
- Using the CAD software to produce standard and non-standard orthogonal, isometric and pictorial views from the 3D models

You will learn how to:
1. Set up a three dimensional environment
2. Create a wire frame model
3. Create a solid model
4. Create a surface model
5. Use editing functions to modify three dimensional geometric shapes
6. Display visual styles
7. Create standard and non-standard orthogonal views from solid or surface objects
STAGE 4

**VU21125**
Apply Construction Principles to Civil Engineering Works

**Overview**
This unit of competency sets out the knowledge and skills required to apply the fundamental principles and concepts associated with planning, estimating and costing to the preparation and interpretation of tender documents, costs estimates and the reporting of actual versus estimated project costs. This includes the documenting of people, plant, equipment and processes employed in the building and civil construction industry.

**You will learn how to:**
1. Establish the construction principles of civil engineering projects
2. Develop planning, estimating, costing and construction principles of a civil engineering construction project
3. Complete planning, estimating, costing and develop construction principles of a civil engineering project
4. Compile, document and present results

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**VU21143**
Produce Engineering Drawings for a Stormwater Reticulation Scheme

**Overview**
This unit of competency sets out the knowledge and skills required to complete engineering drawings for a stormwater reticulation scheme, in accordance with AS1100.4.01 and relevant drainage standards.

**You will learn how to:**
1. Identify stormwater reticulation scheme to be drawn
2. Plan drafting approach
3. Complete the drawings
4. Compile, document and present results
VU21131##
Produce an Engineering Draining Design of Pipes and Culverts

Overview
This unit of competency sets out the knowledge and skills required to apply principles of design for a minor culvert for a rural road using appropriate drainage standards. This includes the application of basic practices, concepts and terminology in engineering hydrology to estimate flood flow magnitude.

You will learn how to:
1. Identify drainage system to be designed
2. Plan drafting approach
3. Complete the drawings
4. Compile, document and present results
VU21122##
**Produce an Advanced Engineering Design for a Reinforced Concrete Structure**

**Overview**
This unit of competency sets out the knowledge and skills required to complete an engineering project brief, including the analysis and design of flexural reinforced concrete members from first principles, using appropriate design aids.

**You will learn how to:**
1. Identify reinforced concrete structure to be designed
2. Plan drafting approach
3. Complete the drawings
4. Compile, document and present results

VU21134##
**Produce an Engineering Design for a Reinforced Concrete Structure**

**Overview**
This unit of competency sets out the knowledge and skills required to complete an engineering project brief, including the analysis and design of flexural reinforced concrete members from first principles, using appropriate design aids.

**You will learn how to:**
1. Identify reinforced concrete structure to be designed
2. Plan drafting approach
3. Complete the drawings
4. Compile, document and present results
## VU21135##
### Produce an Engineering Design for a Steel Structure

**Overview**
This unit of competency sets out the knowledge and skills required to complete an engineering project brief, including the analysis and design of simple steel structures from first principles, using appropriate design aids.

**You will learn how to:**
1. Identify steel structure to be designed
2. Plan drafting approach
3. Complete the drawings
4. Compile, document and present results

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## VU21123##
### Produce an Advanced Engineering Design for a Steel Structure

**Overview**
This unit of competency sets out the knowledge and skills required to complete an engineering project brief, including the analysis and advanced design of steel structures from first principles, using appropriate design aids.

**You will learn how to:**
1. Identify steel structure to be designed
2. Plan drafting approach
3. Complete the drawings
4. Compile, document and present results

## STAGE 4 CONTINUED

### VU21135##
### Produce an Engineering Design for a Steel Structure

**Overview**
This unit of competency sets out the knowledge and skills required to complete an engineering project brief, including the analysis and design of simple steel structures from first principles, using appropriate design aids.

**You will learn how to:**
1. Identify steel structure to be designed
2. Plan drafting approach
3. Complete the drawings
4. Compile, document and present results

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### VU21123##
### Produce an Advanced Engineering Design for a Steel Structure

**Overview**
This unit of competency sets out the knowledge and skills required to complete an engineering project brief, including the analysis and advanced design of steel structures from first principles, using appropriate design aids.

**You will learn how to:**
1. Identify steel structure to be designed
2. Plan drafting approach
3. Complete the drawings
4. Compile, document and present results

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### STAGE 4

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