

INDUSTRIAL EXPERIENCE

STUDENT MANUAL – NAIHE SINGAPORE



COLLEGE OF ENGINEERING, SCIENCE AND ENVIRONMENT

Industrial Experience (IE) provides an opportunity for students to link their curriculum studies with valuable hands-on training and experience in real world situations. **Students must complete IE to graduate.** It should be read in conjunction with the over-arching [Student Professional Experience Policy](#) and the compulsory program requirements as outlined in the program handbooks.

Industrial Experience applications are assessed on a case-by-case basis by the relevant Industrial Experience Coordinator. The experience is assessed in reference to Engineers Australia Accreditation Requirements. The Industrial Experience Coordinator has the ultimate discretion to deny an application if the experience is not deemed appropriate.

It can be challenging and rewarding to find an appropriate placement. While the University is unable to organise your Industrial Experience, the [Careers Service](#) can provide some guidance for students looking for placement opportunities. Some of the services that they provide are:

- The [CareerHub](#) - an online portal with discipline-related work and work experience opportunities.
- Information about job searching strategies.
- Appointment-based resume and application checking and an interview preparation service.

In addition to the Career Service, students attached to PSB Academy may also seek support from the Student Success Office at PSB Academy for additional services such as career mentoring and workshops.

To increase your chances of finding the right placement you should also join the accrediting professional bodies of your degree (many of which offer free student memberships), go to professional networking events and build relationships with the contacts you make, attend career fairs, consider unpaid IE, and most importantly, don't give up!

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DEGREE REQUIREMENTS

Students can complete one single IE or several IE, totaling the required number of weeks.

Please see below requirements for the IE component of the degree programs at NAIHE. It should be read in conjunction with the over-arching [Student Professional Experience Policy](#) and the compulsory program requirements as outlined in the program handbooks.

Degree - NAIHE Singapore	
Bachelor of Mechanical Engineering (Hons) (Singapore)	12 weeks (60 days)
Bachelor of Electrical and Electronic Engineering (Hons) (Singapore)	12 weeks (60 days)
Bachelor of Civil Engineering (Hons) (Singapore)	16 weeks (80 days)
Bachelor of Construction Management (Building) (Hons) (Singapore)	16 weeks (80 days)

IMPORTANT INFORMATION: Non-Singaporean International Students

BCA Non-Singaporean International Students

B. Civil Engineering (Hons.) / B. Construction Management (Hons.)

For non-Singaporean international students holding a student's pass under the BCE/BCM programs above, they require a Letter of Consent (LOC) from the Ministry of Manpower (MOM) to do I.E. Starting I.E. without the LOC is considered illegal.

BCA Academy needs to clear students' job scopes, and students need to send the necessary details to BCA Academy before any LOC is applied. More information will be given during the I.E. briefing conducted by BCA Academy.

PSB Non-Singaporean International Students

B. Electrical & Electronic Engineering (Hons.) / B. Mechanical Engineering (Hons.)

For non-Singaporean international students, a **Training Employment Pass (TEP)** is required to work in Singapore. Students are NOT allowed to work if they hold a Student Pass. If a student wishes to do and complete IE in Singapore, the company must apply for a TEP for the student. The TEP approval process will usually take about 3-4 weeks. Your student pass will be cancelled once you get your TEP.

Please note – there is no 100% guarantee that your TEP application will be successful even if you have satisfied all the eligibility criteria.

If you are an international student in Singapore, please take note of the following:

The **sample** list of **acceptable** institutions is found in [MOM public domain website](#) :

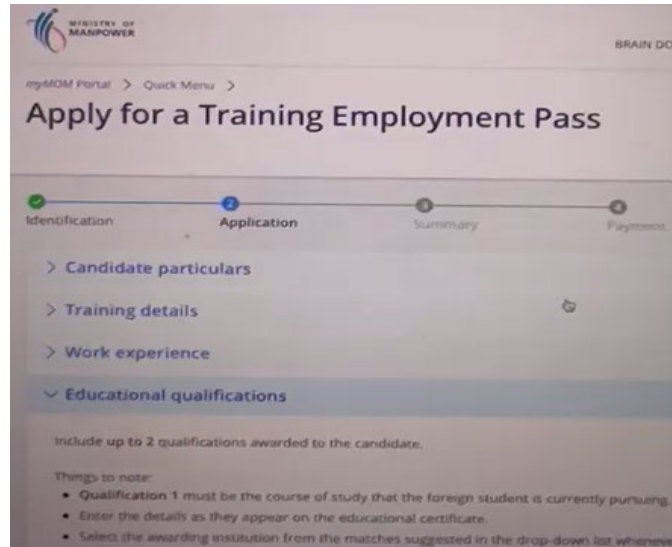
Please inform your company HR department that our institution, University of Newcastle, Australia, is NOT found in the sample list of acceptable institutions.

But, that does not mean that you are not eligible to apply for Training Employment Pass (TEP).

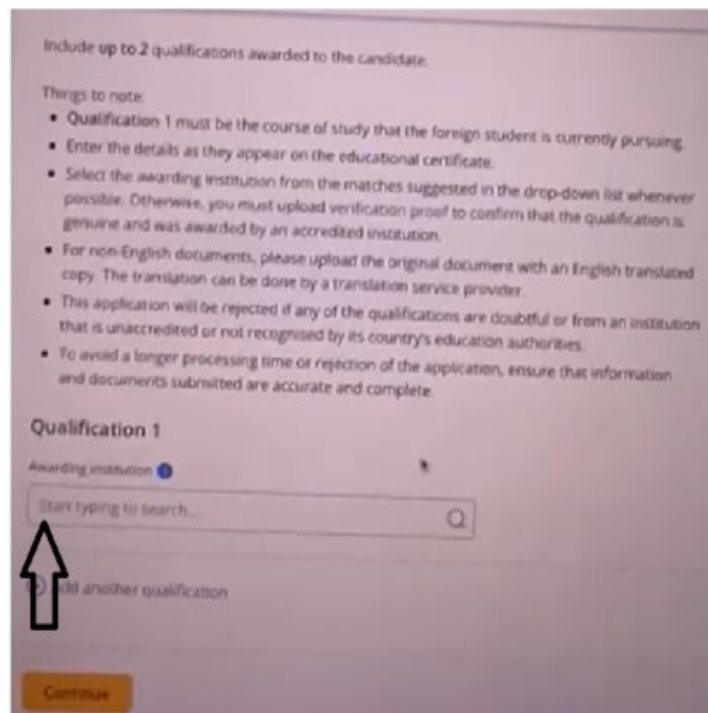
The **full** list of **approved** institutions can be found in MOM TEP online application form under the awarding institution in the educational qualifications section.

Please inform your company HR to follow the steps below to apply TEP for you.

1. Go to the [MOM portal](#)
2. Your Company HR department will need to login with their corporate pass.
3. Complete the different sections starting with Candidate particulars, Training details, Work Experience and Educational qualifications as shown below.
- 4.



5. In the Educational qualifications section, under Qualification 1 → Awarding institution, type in “The University of Newcastle” in the arrowhead shown below and our institution, The University of Newcastle, Australia will show up in the taskbar and click on it.



6. Complete the remaining fields in that section:

Qualification → Bachelor's Degree

Faculty → Engineering

Did the candidate attend classes on campus? → Yes

Is the campus in Australia? → No

Mode of study → Full time

The completed section is shown below.

7. Complete the other sections in the TEP application which is self-explanatory.

APPLICATION FOR INDUSTRIAL EXPERIENCE

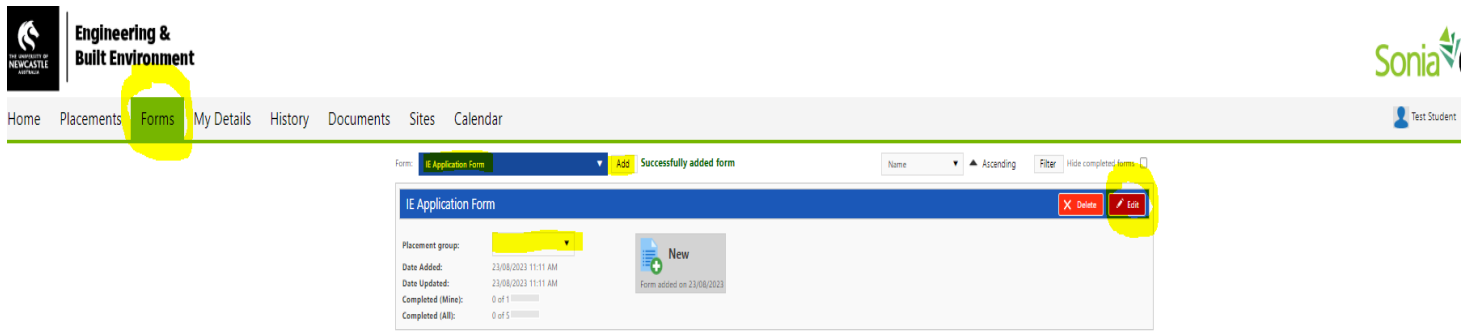
All IE placements are managed in the **SONIA** system. All IE applications (paid and unpaid) should be submitted for **pre-approval** in SONIA **BEFORE** the IE commences to ensure that the duties during your IE will satisfy the compulsory requirements of your degree. The University is unable to provide support if we do not know if/where you are undertaking Industrial Experience.

PRE-APPROVAL IE APPLICATION FORM

STEP 1

Login to [SONIA Online](#). (UON username and password) Select *Engineering & Built Environment*.

Click on the **'FORMS'** tab and from the dropdown selection box, select *'IE Application Form'* and click 'Add'. Select the appropriate Placement Group from the drop-down list. Click 'edit' to add the relevant information.



STEP 2

Student number / name / email / degree program will be automatically filled. Complete the blue student sections and student declaration section. The *Desired Outcome* description of duties should contain sufficient information for the IE coordinator to evaluate if the placement is appropriate.

Industrial Experience Application Form

STUDENT SECTION

Complete this section to submit an Industrial Experience Application

Name:	Student Number:	Email:	
Student Mobile Number:	Degree Program:		
Organisation / Company Name:	Organisation / Company Street Address:	Organisation / Company Suburb:	
Organisation / Company Postcode:	Organisation / Company State / Province:	Organisation / Company Country:	
Organisation / Company Supervisor FIRST (given) Name:	Organisation / Company Supervisor FAMILY name (Surname):	Organisation / Company Supervisor email:	Organisation / Company Supervisor Phone/Mobile:
Proposed Industrial Experience Start Date:	Proposed Industrial Experience Finish Date:	Expected Duration of IE (number of weeks/days as applicable):	Organisation / Company Website URL (please provide if available):
The Industrial Experience will be: <input type="radio"/> Paid <input type="radio"/> Unpaid <input type="radio"/> Both Paid and Unpaid (provide details in Additional Comments)	Please provide details of whether you will be working full-time / part-time / taking leave during the IE	Additional comments:	
Desired Outcome: Please provide a description of your role/responsibilities during the Industrial Experience. This should contain sufficient information for the IE coordinator to evaluate if the IE is appropriate.			

STUDENT DECLARATION

<input type="checkbox"/> I have read and understood the <i>Student Professional Experience Policy</i> and agree to undertake my responsibilities as outlined in this policy.	<input type="checkbox"/> I will comply with standards of professional behaviour, reasonable directions from the host organisation and the University's <i>Student Conduct Rule and Code of Conduct</i> at all times while participating in a professional experience.
<input type="checkbox"/> I have read and understood <i>Student Insurance</i> covered by The University of Newcastle.	<input type="checkbox"/> I will discuss <i>Personal Protective Equipment (PPE)</i> with my company supervisor and will provide my emergency contact details to my company supervisor.

By clicking the *Student submit agreement & accept conditions* button below, your form will be sent to the Professional Experience Unit (PEU). The PEU will arrange completion of the agreement with the organisation's supervisor. You will receive communication once the form has been approved by your University coordinator and your Industrial Experience can commence.

Save Draft | [Student submit agreement & accept conditions](#)

When you have completed your sections, click *'Student submit agreement and accept conditions'* button.

The Professional Experience Unit (PEU) will then forward your application to your company supervisor. You will receive an email notification when the supervisor has submitted the form. **If you do not receive notification within 7 days, please contact CESE-PEU@newcastle.edu.au.**

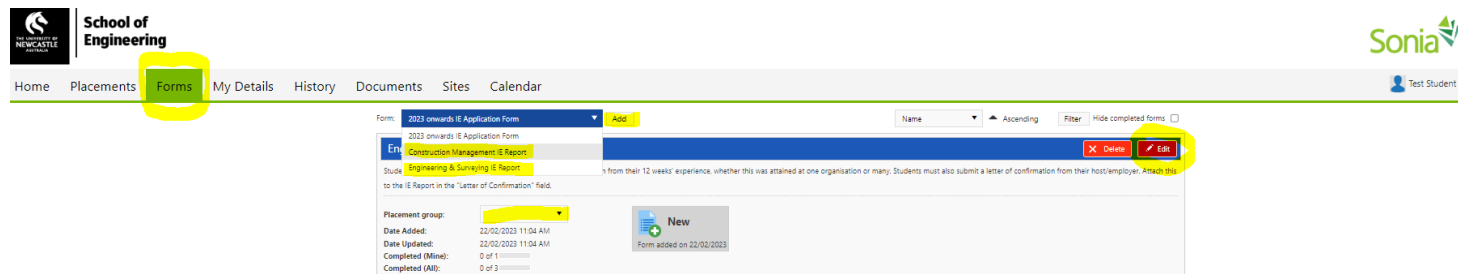
The IE Application will be reviewed by the IE Coordinator for final approval. You may be required to provide more clarification regarding the details before it can be approved. When IE is approved, you will receive email notification that you are able to commence your IE.

Please allow up to 2 weeks for approval by your IE Coordinator

IE REPORTS

Students are required to complete a **single** IE Report which includes all IE placements with one company or across several companies. The IE report can be started at any time after the IE is approved. Students should submit their IE Report prior to final semester of study to easily facilitate graduation.

Students add the relevant IE Report for their program in SONIA.



If the industry experience spans across different activities/companies, students should clearly indicate the dates and duration claimed as part of industry experience for each of them under “Placement organisation(s) and dates” in SONIA.

ENGINEERING Students – IE Report

Students must record tasks and observations in **6** of the self-reflection sections of the report (you can choose any 6 - please write a few sentences for each)

Please select **any 6 (total)** of the competency elements listed in the following **Self Reflection Areas** and describe activities you were involved in that demonstrate attainment. These activities may come from various placements you have completed.

REFLECTION AREA: Exposure to Professional Practice

COMPETENCY ELEMENT	POTENTIAL INDICATORS OF ATTAINMENT	SELF REFLECTION
Exposure to an industrial/technical environment in order to appreciate the various activities associated with engineering in industry	a) Routine, punctuality and maintained work ethic b) Professionalism - integrity, honesty, respect and confidentiality c) Communication with colleagues, experts and laypeople d) Appreciation of the relevance of the engineering curriculum e) Understanding of the influence of professional engineers and the inherent associated responsibility	
Observe and undertake tasks in practical aspects of investigation, design and construction of engineering works as a complement to theoretical studies	a) Understanding of the supporting social function that engineers provide b) Appreciate that every engineering discipline spans a breadth of knowledge beyond the specific curriculum c) Appreciate that a team of people is required to complete any project	

For accreditation requirements, students must also:

- i) Enter a **1500-word** narrative describing your personal experiences. Photos/work may be included. Attach a letter of confirmation from each employer. The confirmation letter **must be signed** (not just the printed name) and on company letterhead and contain:
 - a) dates of placement
 - b) total weeks/days of IE completed
 - c) a brief description of activities undertaken

Please note: Letters of Offer or contracts are NOT acceptable as they do not confirm that the IE has been completed.

If the word count is not met, and/or the letter is not acceptable, you will be asked to resubmit, which will delay completion.

If more than one IE placement is undertaken, keep saving the draft report until the total number of weeks have been completed. When the report is completed and ready to send, press “**Submit**”.

Narrative

Write **1500 words** describing where you went, what you did and who you worked with, across multiple sites if applicable.

Letter of Confirmation from site: (**must be signed** and on company letterhead, must confirm placement dates and provide a brief description of activities undertaken)

 Browse

Supporting Documents (diary, work samples, reports completed while on placement - this is NOT compulsory)

 Browse

Save Draft if you intend to complete further placements and add to this portfolio, or if the report is completed, press *Submit*.

Save Draft **Submit**

CONSTRUCTION MANAGEMENT Students – IE Report

Students must record tasks and observations in **ALL** Student Reflection Questions (**1-6**) of the IE report, providing around **250 words on each** student reflection question

STUDENT REFLECTION QUESTIONS

Reflect upon each of the following points (**write about 250 words on each question**)

1. Understand how to integrate and evaluate the fundamental principles and technical knowledge of building and construction technology, management, economics and the law

2. Identify and resolve typical building challenges with limited guidance, employing appropriate evidence-based problem solving and decision-making methodologies

Students must also attach a letter of confirmation from each employer. The confirmation letter **must be signed** (**not just the printed name**) and on company letterhead and contain:

- a) dates of placement
- b) total weeks/days of IE completed
- c) a brief description of activities undertaken

Please note: Letters of Offer or contracts are NOT acceptable as they do not confirm that the IE has been completed.

If the word count is not met, and/or the letter is not acceptable, you will be asked to resubmit, which will delay completion.

If more than one IE placement is undertaken, keep saving the draft report until the total number of weeks have been completed. When the report is completed and ready to send, press “Submit”.

Letter of Confirmation from site: (must be on company letterhead; must be signed by your company supervisor; must confirm placement dates and briefly describe your activities undertaken. An employment contract is **not** suitable)

 Browse

Supporting Documents (eg Log book if you have one - note it is NOT compulsory to attach any documents here):

 Browse

Save Draft if you intend to complete further placements and add to your reflection responses

Save Draft **Submit**

When the report is submitted in SONIA, it is automatically emailed to the relevant IE Coordinator for approval. IE Coordinators can then approve the report or request resubmission from the student if the report does not satisfy requirements.

When/If the IE report is approved, the PEU will then update the student's milestone. An auto-email notification will be sent to you advising that the IE Report has been approved. The email will also include links to graduation information (relevant only if you have completed all other degree requirements).

WHAT INDUSTRIAL EXPERIENCE CAN I CLAIM?

It is the student's responsibility to find appropriate IE opportunities in a field related to their studies. Students should look for ways to meet their requirements from their first year of study. If students are unable to obtain suitable IE, they are encouraged to seek advice from their [IE Coordinator](#). Students are also encouraged to utilise the [UON Career Resources](#).

INDUSTRY PLACEMENT/EMPLOYMENT

Students can complete all or some of their IE in an industry placement (paid or unpaid) or through relevant employment in a place conducting professional engineering work, under supervision of a qualified, practising professional for accreditation. Approval is at the discretion of the Industrial Experience Coordinator and examples of suitable IE may include research work, construction work, laboratory work, design work, site appraisal or inspections, project management work, and any other skill linked to the [Engineers Australia Graduate Attributes](#)

UNPAID and PAID Industrial Experience

Students must submit an IE Application Form in SONIA for all IE **BEFORE** the IE commences to ensure that it is a University approved experience and will count towards your degree program.

PLEASE NOTE: Students completing IE in countries other than Singapore need to ensure compliance with local Fair Work laws.

PRIOR WORK EXPERIENCE

Students **may** be able to have relevant prior work experience counted towards their Industrial Experience. Please submit a single IE Report in SONIA together with employer confirmation letter(s) when you have completed a total of 12 weeks (Mechanical and Electrical Engineering) / 16 weeks (Civil Engineering and Construction Management) IE across all placements. Approval will be at the discretion of the IE Coordinator and is **not** guaranteed.

OVERSEAS (in countries outside of Singapore) INDUSTRIAL EXPERIENCE and STUDY ABROAD PROGRAMS

If you are considering undertaking IE in a country outside Singapore (even if it is in your own country), you must email the Professional Experience Unit CESE-PEU@newcastle.edu.au for further information.

All or part of the IE requirements can be completed overseas (in countries outside of Australia) if the Industrial Experience is approved by your IE Coordinator and Head of School. Students may source their own Industrial Experience relevant to their degree program, or the University of Newcastle works with some third-party providers such as Projects Abroad and CIS Australia to enable students to find a relevant opportunity. Students can visit the [Global Experience](#) website to find out more.

Overseas Industrial Experience must be pre-approved prior to confirming or signing any internship / program agreement. This is to avoid any non-refundable items such as airfares, accommodation and associated expenses.

Students must also be aware of insurance requirements for overseas Industrial Experience – students may be required to purchase their own individual travel, medical and industrial experience insurance dependent upon the overseas industry, visa requirements, arrival and departure dates in connection with the dates of IE and other considerations. Please contact insurance@newcastle.edu.au for further information.

EXTRA-CURRICULAR PROGRAMS

ENGINEERS AUSTRALIA VIRTUAL WORK EXPERIENCE MODULES

The virtual work experiences are real world scenarios designed to test and develop a student's professional skills, bridging the gap between university theory and working practice. Completion of the virtual work experience modules may be considered as a way to complement or supplement IE / EPP for those students nearing completion of their programs and who have already completed additional work experience.

There are virtual work experiences for the following engineering disciplines:

- Biomedical Engineering
- Chemical Engineering
- Civil Engineering
- Electrical Engineering
- Environmental Engineering
- Mechanical Engineering

Students will receive a verifiable certificate from Engineers Australia (EA) after completing all of the modules relevant to their discipline, which must be uploaded to their IE Report

Students can receive **1 day of IE** for completion of the virtual work experience relevant to their discipline.

Students must submit an Alternative IE Attendance Certificate in SONIA for these modules - students will need

to email CESE-PEU@newcastle.edu.au to request this form to be added to their SONIA forms.

Details of the Virtual Experiences can be found at [Engineering Virtual Work Experiences | Young Engineers Australia](#)

INDUSTRY EVENTS

A maximum of 1 week (total) can be claimed for events run by accrediting international bodies, such as continuing professional development seminars, site visits, technical presentations, or demonstrations.

A maximum of a ½ day can be claimed per event.

An Alternative IE Attendance Certificate for each event must be completed in SONIA (the student will need to email CESE-PEU@newcastle.edu.au to request the form to be added to their SONIA forms), which must be completed by the event supervisor/coordinator confirming attendance AND participation.

POLICIES, GUIDELINES AND INSURANCE

[Student Professional Experience Policy](#)

[UON Privacy and Personal Information Protection](#)

UNIVERSITY OF NEWCASTLE INSURANCE

The University of Newcastle has a general insurance program that extends to cover the range of people, activities and equipment involved in the delivery of teaching and research. While there is no single insurance policy that can offer cover to Students who participate in the range of WIL activities with Host /Professional Experience Providers (Employers), Students should be aware of the role that insurance can – and can't – play in the event of an incident while they are under the control and supervision of their Provider.

For more information please refer:

[WIL Insurance Summary](#) - (Key information regarding cover, general limits, exclusions and Claims.)

[Student Insurance](#) webpage

(For specific information, questions or concerns relating to Insurance) Insurance@newcastle.edu.au

CONTACT FOR ADDITIONAL INFORMATION

**COLLEGE OF ENGINEERING, SCIENCE & ENVIRONMENT
PROFESSIONAL EXPERIENCE UNIT**

Email: CESE-PEU@newcastle.edu.au

Phone: (02) 4921 7302

Website: [UON Industrial Experience](#)

