

EAT20008 PROFESSIONAL EXPERIENCE IN ENGINEERING

2023 HANDBOOK

OVERVIEW	2
APPROVED ENGINEERIG ACTIVITIES	3
PROCESS CHECKLIST A	4
- Applies to students undertaking new professional activity	4
PROCESS CHECKLIST B	5
- Applies to students claiming credit time using prior engineering experience	5
ENROLMENT PROCESS	6
ASSISTANCE FOR PLACEMENT	7
ANNEXURE A – COMPLETION LETTER	9
ANNEXURE B –SUMMARY OF REFLECTIVE JOURNAL	10

OVERVIEW

This document provides an overview of the process to be followed in order to prepare, apply for and obtain credit toward an approved placement/activities.

Students are required to read this document in full to ensure they understand the requirements of EAT20008 Professional Experience in Engineering program at Swinburne.

EAT20008 Professional Experience in Engineering is a compulsory unit, as part of Engineers Australia accreditation of Swinburne Engineering programs, and requires all engineering students (except Engineering Practice degree and Professional degree) to complete minimum of twelve weeks fulltime equivalent (or 480 hours) approved professional experience in engineering.

Professional experience in engineering can be extremely valuable that helps you expand your knowledge, develop your skills, build your confidence, gain vital career experience and build professional network.

The most frequently undertaken professional activity is Practical experience in industry. Other approved activities as listed in page 3. Students must self-source their own placement/activity, although there is some limited assistance.

Process checklist A provides stepwise guide to source professional experience and meet the unit requirement.

Process checklist B provides guide to claim credit time using prior engineering experience.

Refer to [FAQs](#) document in Modules for quick answers to the most frequently asked questions.

All resources are contained in the canvas site [ORG-STU-Pro-EAT20008](#) which all Engineering students should gain access to in their second semester enrolled in the course.



Quick links

Canvas

[ORG-STU-Pro-EAT20008](#)



Important contacts

Unit convenor

Lily Li eat20008@swin.edu.au

Major supervisor

Rayya Hassan | Civil, Construction, Architectural
rahassan@swin.edu.au

Mehdi Seyedmahmoudian | Electrical & Electronic
mseyedmahmoudian@swin.edu.au

Shanti Krishnan | Mechanical, Product Design
skrishnan@swin.edu.au

Jinchuan Zheng | Robotics and Mechatronics
jzheng@swin.edu.au

Simon Moulton | Biomedical
smoulton@swin.edu.au

Dragi Klimovski | Telecommunications
dklimovski@swin.edu.au

Siva Chandrasekaran | Software
schandrasekaran@swin.edu.au

The information contained in this course guide was correct at the time of publication, February 2023.

The university reserves the right to alter or amend the material contained in this guide.

APPROVED ENGINEERING ACTIVITIES

See **N.B.** for explanation. This table will be reviewed and amended from time to time.

Approved engineering practice activity		Evidential documents to gain credit time	Credit time
1	Practical experience (paid or unpaid) in an engineering environment outside the teaching establishment	Completion letter (set out in Annexure B and can be downloaded from CANVAS)	12 weeks or more
2	Classes and activities on professional ethics and conduct	Others	Max 2 weeks
3	Participation in classes conducted by guest presenters with industry experience	Others	Max 2 weeks
4	Industry visits and inspections. Reflective report on visit	Others	Max 2 weeks
5	Industry based projects (including but not only final year projects)	Verification by project (or FYP) supervisor	Max 2 weeks
6	Industry research for feasibility studies	Others	Max 2 weeks
7	Study of industry policies, processes, practices and benchmarks	Others	Max 2 weeks
8	Interviewing engineering professionals	Others	Max 1 day
9	Industry based investigatory assignments	Others	Max 2 weeks
10	Direct industry input of data and advice to problem solving, projects and evaluation tasks	Completion letter (set out in Annexure B and can be downloaded from CANVAS)	12 weeks or more
11	Electronic links with practicing professionals (e.g. guest presenters in online discussion forums)	Others	Max 1 week
12	Case studies	Others	Max 1 week
13	Swinburne Venture Cup	Others	Max 6 weeks
14	Swinburne Professional internships - engineering (elective unit)	Statement of result for the subject	4 weeks
15	Swinburne ENG30001 Engineering Design Academy (elective unit)	Statement of result for the subject	4 weeks
16	Swinburne Overseas study tours	4-party signed agreement (student, university, host, Third-Party Provider)	2 to 6 weeks
17	Swinburne Overseas internships	4-party signed agreement (student, university, host, Third-Party Provider)	6 to 12 weeks
18	Swinburne Professional Placement Major or Minor (full time 6- or 12-month)	Statement of result for passed units	Exemption
19	or other activities approved by EAT20008 unit convenor		Max 1 week per activity

N.B.

Activity 1 Practical experience - requirements

The following are requirements that a **Practical experience** must satisfy in order to gain credit time:

- Be in industry or the profession, or at any other workplace where engineering work is performed;
- The work experience must be linked to the student's engineering course and have some regular mentoring (directly or indirectly) by a professional engineer
- The experience must be of an engineering nature. This can be varied in nature. The major supervisor will determine based on a number of factors including the nature of the work, the proportion of engineering component, and how the work generally supports the objectives of EAT20008 unit. A placement where a student undertakes only non-engineering work (i.e. accounting or reception) at an engineering workplace is not sufficient. Working as a draft person is not sufficient, unless it is one of the tasks undertaken together with a number of engineering related tasks. Project or contract management are acceptable alternatives.

Credit time

Activities 1-13 and 19

- 1hr of activity = 1hr credit time towards EAT20008.
- 8 hours of credits = 1 day, and 40 hours or 5 days credits = 1 week.
- maximum credit time applies

Activities 16-17: the credit time depends on the duration of the activity (if not sure, contact the organiser)

Evidential documents

Others - A report and verification of participation and duration of the activity by provider

PROCESS CHECKLIST A

- Applies to students undertaking new professional activity

Step 1: Attend one introductory seminar

All students must attend one introductory seminar to understand the requirements to pass the unit. Repeated introductory seminar in Week 3 of semesters 1 and 2 through Collaborate Ultra course room at canvas site [ORG-STU-Pro-EAT20008](#).

Students who missed the seminars can watch the recoding (available for download on Canvas) and complete the access quiz (access code 1111) in Assignments.

Students should successfully complete the OHS test before commencing professional experience.

Step 2: Self-source a professional activity in engineering

Make sure the practical experience satisfy **Activity 1 Practical experience - requirements** set out in page 3.

If unsure, students discuss the prospective professional opportunity with EAT20008 major supervisor (contact info in page 2). The supervisor may require detailed position description for the proposed placement prior to approval.

EAT20008 opportunities communicated through canvas have been approved.

Step 3: Seek approval

Being offered an opportunity, student emails major supervisor the letter/email, on company letterhead, from employer/boss/provider briefly describing the planned professional experience and duration for approval (*Email subject: EAT20008 approval request*).

If the opportunity is appropriate, major supervisor will reply to student email, approving it. Otherwise, major supervisor will reply to student and advise to look for alternative opportunities.

Student should **not** commence a placement without first notifying the major supervisor regardless of whether the opportunity was advertised at [ORG-STU-Pro-EAT20008](#) or sourced by student directly.

Step 4: Submit safety forms

If student is requiring coverage under Swinburne's liability and personal accident insurance while undertaking the opportunity, student must submit by email to convenor at commencement the following forms (Annexure A) and provide the employer the current insurance certificates (download from [Canvas](#)):

- Host-Organisation Induction form (Employer fill in)

- Off-campus Work Safety form (student fill in)

Step 5: Enrol (ONCE ONLY)

Ignore this step if already enrolled.

Upon receipt of approval from major supervisor (**Step 3**), student submits an [Enrolment Amendment form](#) with required documentation. Refer to **Enrolment Process** section. Enrolment Specialist team will enrol (no fees) the student in suitable availability (summer, semester 1, winter or semester 2) and advise student via email.

Step 6: Undertake the professional activity

Maintain a reflective journal during the professional experience - reflect and answer the following questions:

- Describe the Activity (with dates)
- How did the experience address the Swinburne Engineering Competencies?
- How did the experience gained influence the future direction of your career?

Step 7: Obtain a completion letter

On completing the professional activity, obtain from employer a signed and dated letter/email from the employer/host, on company letterhead, with start and end dates, student name and ID, description of the completed professional experience and duration (exampled [Completion Letter](#) set out in Annexure A and at canvas site, which is only for guidance).

Repeat Steps 2-7 (except for 5) if more than one placement is needed to accumulate the 12 weeks.

Step 8: Complete/Pass the unit

On completing 12 weeks or 480 h, students email major supervisor the below documents for completion assessment (*Email subject: EAT20008 completion assessment*):

- Completion letter(s)
- Summary of the reflective journal (2-4 pages) (set out in Annexure B)

If the submission is not satisfactory, supervisor will advise the students by email how and what to do.

If the submission is satisfactory, supervisor will inform students and unit convenor by email the PASS of EAT20008. The convenor submits the PO (Pass Only) result. The student must be enrolled to have the result published.

PROCESS CHECKLIST B

- Applies to students claiming credit time using prior engineering experience

- Students who have completed industrial training/engineering experience within 12 months prior to commencing at Swinburne, as part of a Degree or Advanced Diploma course, or after completing an Advanced Diploma, should ask the convenor about eligibility for credit towards the 12 weeks.
- Students who have completed engineering work experience since commencing at Swinburne should contact major supervisor for eligibility for credit towards the 12 weeks

Step 1: Attend one introductory seminar

All students must attend one introductory seminar to understand the requirements to pass the unit. Repeated introductory seminar in Week 3 of semesters 1 and 2 through Collaborate Ultra course room at canvas site [ORG-STU-Pro-EAT20008](#).

Students who missed the seminars can watch the recoding (available for download on Canvas) and complete the access quiz (access code 1111) in Assignments.

Students should successfully complete the OHS test before commencing professional experience.

Step 2: Seek approval

Student email major supervisor for approval with details of prior work experience (offer letter, employment agreement, position description, experience total duration etc) - *Email* subject: EAT20008 approval request

If the opportunity is appropriate, major supervisor will reply to student email, approving it. Otherwise, major supervisor will reply to student and advise to look for alternative opportunities.

Step 3: Enrol (ONCE ONLY)

Ignore this step if already enrolled.

Upon approval from major supervisor, student submits an [Enrolment Amendment form](#) with required documentation. Refer to **Enrolment Process** section. Enrolment Specialist team will enrol (no fees) the student in suitable availability (summer, semester 1, winter or semester 2) and advise student via email.

Step 4: Obtain a completion letter

Upon approval, if not yet, student obtain from employer a signed and dated letter/email from the employer/host, on company letterhead, with start and end dates, student name and ID, description of the completed professional experience and duration ([Completion Letter](#) set out in Annexure A and available on canvas).

Repeat Steps 2-7 (except for 5) in **Process Checklist A** if a new professional activity is needed to accumulate the 12 weeks.

If student have already completed 12 weeks FTE, proceed to Step 8 Complete/Pass the unit in **Process Checklist A**.

ENROLMENT PROCESS

Students who have not yet completed professional experience

1. Upon approval from their major supervisor for their placement (**Step 3 in Process Checklist A**), student submits an [Enrolment Amendment](#) form to the Enrolment Specialist team, attaching the following documentation:
 - Major supervisor approval (either attached as a saved email, or as a saved screenshot which includes sender details)
 - Offer letter for placement opportunity, which includes start date of placement



2. Enrolment Specialists enrol the student into the appropriate availability of EAT20008, and advise student via return email

Student who have passed/completed EAT20008 but not enrolled yet

1. Upon confirmed completion or PO of unit EAT20008 from their major supervisor (**Step 8 in Process Checklist A**), student submits an [Enrolment Amendment](#) form to the Enrolment Specialist team, attaching the following documentation:
 - Major supervisor message confirming the completion or PO (either attached as a saved email, or as a saved screenshot which includes sender details)



2. Enrolment Specialists enrol the student into the appropriate availability of EAT20008, and advise student via return email

Students who have completed prior professional experience, but who were not enrolled into EAT20008

1. Upon approval from major supervisor for the prior experience in engineering (**Step 2 in Process Checklist B**), student submits an [Enrolment Amendment](#) form to the Enrolment Specialist team, attaching major supervisor's approval message



2. Enrolment Specialist will assess the most appropriate availability of EAT20008 for the student to be enrolled into:
 - If a future availability, Enrolment Specialist to enrol the student into EAT20008
 - If more appropriate to enrol the student into a past availability (e.g. EAT20008 is the student's final unit before graduation), Enrolment Specialist to submit a Post Census Amendment (PCA) application to backdate the student's enrolment



3. (if required) Enrolment Operations team process PCA application, and enrol student



4. Enrolment Specialist informs student of enrolment via email
 - If the required completion documentation have been assessed by major supervisor as satisfactory, student advises the unit convenor (eat20008@swin.edu.au) via email the enrolled term/semester so that the unit convenor can add the Pass Only (PO) grade into system

ASSISTANCE FOR PLACEMENT

EAT20008 opportunities are announced via Canvas [ORG-STU-Pro-EAT20008](#)

Other useful websites to for finding professional experience include:

- [GradConnection](#)
- [Prosple](#)
- [LinkedIn](#)

Swinburne - Careers and Employability

[Careers and Employability](#) offer a diverse range of services to all Swinburne students and alumni to assist with career planning, employability development and job search.

[SwinEmploy](#) is a digital platform with a range of career and job search resources including:

[Job search strategies](#)

[Job advertisements](#)

Job application support

[Resumes](#)

[Cover letters](#)

[LinkedIn](#)

[CV360 instant resume feedback](#)

[Interview skills](#)

[Interactive interview simulator](#)

[Elevator pitch builder](#)

[Career events](#)

[Career planning](#)

[Industry insights](#)

[International student resources](#)

[GoinGlobal international job and internship data base](#)

You can attend a 10-minute Career Chat session at Student HQ Hawthorn Monday – Thursday from 12-1pm for individual support – no appointments needed. In addition, you can book an on-line 10-minute Career Chat or 30-minute Career Consultation by emailing employability@swin.edu.au

ENGINEERS AUSTRALIA

[Engineers Australia](#) (student membership is free) is continuing to receive and advertise placements, offering EA networking, online resources and webinars. The following are extracts from Student membership:

How do I go about getting vocational work experience?

Most Engineers Australia division offices annually produce a Vocational Handbook, which is an employment database of companies and contacts in the region who are keen and willing to take on students like yourself to obtain valuable work experience. Contact your local division to obtain a copy of the Handbook in your area.

In addition to this, many students tell of finding work via recommendation, so ask your lecturers and tutors, family, friends, and sporting association contact if they can suggest companies for you. Do some web searches under the type of engineering and industry that you are interested in working in on www.industrysearch.com.au as well as the yellow pages for other companies to contact.

How much should I expect to be paid for industrial training?

Professionals Australia (formerly APESMA) provides some guidelines for work experience payment to undergraduate students at <http://www.professionalsaustralia.org.au/students/>

Australian Businesses Databases

Swinburne Library provides access to 'Australian Business to Business'. Type Australian Business to Business in the library search, it will bring up the link to the database B2B by JPM Media and select View Online to access the shortcut. Then select Search Database and use keywords e.g. manufacturing, construction.

The screenshot shows the Australian B2B website interface. At the top, there's a header with the logo and navigation links. A sidebar on the left contains various menu items like 'About Australian B2B', 'Search Database', 'Advanced Search', etc. The main content area displays search results for 'Manufacturing' with filters for location, turnover, and staff size. A list of companies is shown, including '21st Century Boats Proprietary Limited' and '21st Century Coatings (Australia) Proprietary Limited'.

The Swinburne Venture Cup

The Swinburne Venture Cup is a business plan competition for teams of Swinburne students at each level of the University: TAFE, Undergraduate and Postgraduate

Entry to the competition is free and consists of a series of specialized seminars - dates can be found on [important dates](#) page. (Some Seminars are available on Video on Demand). The Seminars cover all aspects of writing a business plan from sourcing ideas, evaluating opportunities and markets to putting the final Business Plan together. There are also informal lunchtime workshops with mentoring opportunities. The seminars and workshops offer networking opportunities to facilitate the formation of well balanced teams with wide-ranging skill sets so that students have an optimum opportunity to develop ideas, concepts and business plans - preferably building on projects as part of formal coursework.

Credit of 6 weeks may be achieved towards EAT20008. Apply in November for commencement in the following year. Further details can be obtained from [Venture Cup](#) webpage:

Engineers Without Borders, Australia

[EWB](#) works in partnership with developing communities both within Australia and overseas, assisting them to gain access to the knowledge, resources and appropriate technologies they need to improve their livelihoods. We focus on developing the capacity of the local technical sector through small scale, grassroots engineering programs to ensure that innovative, appropriate and sustainable solutions to issues that impede development are locally generated and driven. Some common issues facing the communities we work with include access to drinking water, sanitation, energy, basic infrastructure, waste systems, Information Communication Technology and engineering education.

Studentship Programs

Example 1: [CSIRO studentship](#) program

Example 2: [DST's Summer Vacation placement](#) Program

ANNEXURE A – COMPLETION LETTER

[insert host letterhead]

Attention:

Dr Lily Li
Convenor, EAT20008 Professional Experience in Engineering
Swinburne University of Technology
P.O. Box 218
HAWTHORN VIC 3122

[insert date]

Dear Lily, Professional Experience in Engineering

Reference: [insert student name and ID number]

I confirm that [insert student name] has completed their Professional Experience in Engineering at [insert full company name].

[insert student name] completed [insert number of days] weeks full time equivalent (based on a normal full-time working week of 40 hours) of experience between [insert start date] and [insert end date]. During this time, they completed the following duties;

- [insert engineering related duty];
- [insert engineering related duty];
- [insert engineering related duty / add any additional duties below];
-

[Optional - comments/feedbacks on the students' work]

Kind regards,

[supervisor signature]

[insert supervisor first and last name]
[insert supervisor title]

ANNEXURE B –SUMMARY OF REFLECTIVE JOURNAL

Note: During the professional experience, students maintain a reflective journal (Process Checklist Step 6). On completing the whole 12 weeks work experience, students must prepare a summary of the journal (2-4 pages) and email to the major supervisor for assessment. Students must address the Swinburne Engineering Competencies for this unit and discuss how the work experience has changed their long-term careers goals. A guide is provided below on what to write about in the summary. Students are also encouraged to provide their own insights and commentary on the experience with examples.

Host organisation(s)

An introduction paragraph of the host organisation (name, location, main business, what division did you worked in, your role there and duration of the experience;

If the 12 weeks (or 480 h) experience involves multiple hosts, give each host an introduction.

Completed tasks/trainings (with dates)

A weekly or fortnightly (or equivalent) description of completed work/activity that you performed or training that you received that was directly relevant to your engineering course

Swinburne engineering competencies

Discuss the following list of Swinburne Engineering Competencies (approximately 1-2 paragraphs on each). You will need to think about these in relation to what you experienced during your work placement and how what you have learnt during your course would help you if you were to undertake a similar job in the future. Provide examples. Please use the bold sections below as sub-headings.

K5 Practice Context: Discerns and appreciates the contextual factors affecting professional engineering practice. (Do you now understand how what you learnt during the course relates to what you need to know in the job? Explain for example how some of the units that you studied during the degree were important and why?)

K6 Professional Practice: Appreciates the principles of professional engineering practice in a sustainable context. (What did you learn about standards, safety/risks, sustainable engineering, and project management?)

A1 Ethics: Values the need for, and demonstrates, ethical conduct and professional accountability. (Did you come across any ethical issues? For example, were there any non-disclosure issues that you came across?)

A2 Communication: Demonstrates effective communication to professional and wider audiences. (Who did you need to communicate with during your work? How did you communicate, written, spoken? Why are good communication skills important? Did you need to write any reports, or fill in any forms as part of your work?)

A5 Professional Self: Demonstrates professionalism. (What did you learn about acting professional? How did you take care of risk? How did you make sure that tasks that were assigned to you were completed in a timely manner? Was it important to turn up on time? Could you leave whenever you wanted? Were you expected to dress in a way that was specific to the job?)

A6 Management of Self: Demonstrates self-management processes. (What did you learn about managing your time? Did you need to document any of your work?)

A7 Teamwork: Demonstrates effective team membership and team leadership. (Did you work as part of a team? What was required for the team to work well? Did you see examples of good teamwork?)

Influence on the future direction of your career

A brief discussion about how the experience has influenced your long-term career goals.