



Engineering Professional Practice Reflection Assessment Writing Guidelines

The BE, BE(Hons), BE(Hons)/ME and ME program rules state that: A student must— (a) complete 450 hours of professional practice approved by the Faculty; and, (b) satisfactorily complete assessment pertaining to that professional practice as determined by Faculty.

You are **required to submit five (5) reflections** on your professional development in written form. Within each reflection, you are required to:

1. **Choose one (1) of the sixteen (16) [Engineers Australia Stage 1 Competencies](#)**. Please note that out of the five (5) reflections at least four (4) reflections must be from sections two (2) and three (3) of the Engineers Australia Stage 1 Competencies. Each reflection must address a different competency.
2. **Identify one or more learning events** that you have encountered whilst undertaking your 450 hours of professional practice. When identifying your learning event(s), think about all the things you have done in your professional practice activities and decide which of those things have helped you understand better or helped you do a better job as a professional engineer.
3. Discuss the learning event(s) you have identified with reference to the Engineers Australia Stage 1 Competency you have chosen. Use the **SEAL Reflection Framework** for your discussion (300 words per reflection).

Engineers Australia Stage 1 Competencies

1. KNOWLEDGE AND SKILL BASE

- 1.1. Comprehensive, theory based understanding of the underpinning natural and physical sciences and the engineering fundamentals applicable to the engineering discipline.
- 1.2. Conceptual understanding of the mathematics, numerical analysis, statistics, and computer and information sciences which underpin the engineering discipline.
- 1.3. In-depth understanding of specialist bodies of knowledge within the engineering discipline.
- 1.4. Discernment of knowledge development and research directions within the engineering discipline.
- 1.5. Knowledge of engineering design practice and contextual factors impacting the engineering discipline.
- 1.6. Understanding of the scope, principles, norms, accountabilities and bounds of sustainable engineering practice in the specific discipline.

2. ENGINEERING APPLICATION ABILITY

- 2.1. Application of established engineering methods to complex engineering problem solving.
- 2.2. Fluent application of engineering techniques, tools and resources.
- 2.3. Application of systematic engineering synthesis and design processes.
- 2.4. Application of systematic approaches to the conduct and management of engineering projects.

3. PROFESSIONAL AND PERSONAL ATTRIBUTES

- 3.1. Ethical conduct and professional accountability.
- 3.2. Effective oral and written communication in professional and lay domains.
- 3.3. Creative, innovative and pro-active demeanour.
- 3.4. Professional use and management of information.
- 3.5. Orderly management of self and professional conduct.
- 3.6. Effective team membership and team leadership.



How you will be assessed

Reflective papers are marked either pass or fail. You will be required to resubmit should you receive a fail. You may resubmit as many times until you receive a pass.

FAIL	PASS
The assessment was not submitted using the reflections template; lacks significant detail and insight; poorly written and has many errors; does not demonstrate connections with the Engineers Australia Stage 1 Competency Standard; and/or does not follow the reflection template	The reflection follows the recommended SEAL (Situation, Effect, Action and Learning) format. The reflection is mostly clear and concise. The reflection is thoughtful and insightful and sufficiently demonstrates how the student developed the Engineers Australia Stage 1 Competency Standard

A learning event

A learning event is an event that has occurred whilst undertaking your 450 hours of professional practice that had an impact on you or developed your understanding of what it means to be a professional engineer. A learning event could be something that confirms or contradicts your prior knowledge, theories or understanding, in particular the knowledge you may have gained at university. It does not have to be an event that went well; often we learn more from things that do not go quite as planned. If it was a negative learning event, describe what you will do differently in the future to lead to a more positive outcome and how you will use this experience to guide future behaviour.

Writing reflectively

The reflective writing assessment encourages you to think about your engineering degree and to reflect on how you have developed at least five (5) Engineers Australia Stage 1 Competencies. Reflect on events where your professional thinking or practices have transformed and describe this in terms of what you did, what you learned and how this learning will affect your future behaviour. Use clear examples as evidence of your professional development.

Writing structure

Reflections are personal so your writing should be relaxed and conversational as opposed to the more formal style of academic writing. Give examples or evidence to show on which basis you believe your statements to be true. Reflection is an exploration and an explanation of events – not just a description of them. Reflective writing often involves ‘revealing’ anxieties, errors and weaknesses, as well as strengths and successes. This is fine as long as you show some understanding of possible causes, and explain how you plan to improve. It is necessary to select just the most significant parts of the event or idea on which you are reflecting. It is often useful to ‘reflect forward’ to the future as well as ‘reflecting back’ on the past.

It is mandatory that you use the SEAL framework, outlined below, to ensure that you demonstrate development of each competency.

Situation: What was the new experience or challenge you faced and what happened to you? In this paragraph, state the activity you are referring.

Effect: What impact did it have on you and what were the consequences of this impact?

Action: What action did you take to deal with the new situation and any challenges, and why did you do this?

Learning: What did you learn from the experience and how will you apply this in the future?



Reflections examples (SEAL format)

EA Competency 3.2. Effective oral and written communication in professional and lay domains

Situation: The most significant learning experience from my work placement at Rio Tinto as an Undergraduate Mechanical Engineer was a presentation I had to give towards the end of the placement. I had to talk about the project that I was working on at a staff meeting. I had thought that I was quite confident, as I had spent quite a bit of time preparing it in the way that I have seen others make similar presentations. I was still quite nervous as the student in the team rather than the professional. When it came to the presentation, I wanted to do well.

Effect: My efforts to be calm failed and my voice went wobbly. I persevered despite being nervous and unhappy with my performance. Afterwards, I talked things over with my supervisor and we identified where I could improve. I was a little bit embarrassed about having to talk to my supervisor but I felt it was the best way to learn and improve. Presentations in a professional environment are much harder than at university.

Action: The debrief with my supervisor was really helpful and I realise that I need to structure my presentations better to help me present in a more logical way and I need to get a handle on my nerves by taking a deep breath before I start speaking and practising beforehand. From this experience, I learned that it is important to ask for help when you need it and even though criticism can be hard to take sometimes if you can use it to improve then it is well worth it.

Learning: In the future, I will seek help before I get to the point of near disaster and will take on board feedback. Overall, the experience has made me more confident about presenting in a professional situation. My communication skills have improved and I feel like facing a challenging situation has made me more resilient and able to bounce back after something has not gone the way I liked.