



engineers
without borders
australia

CPD Guide

For use by Monash University students



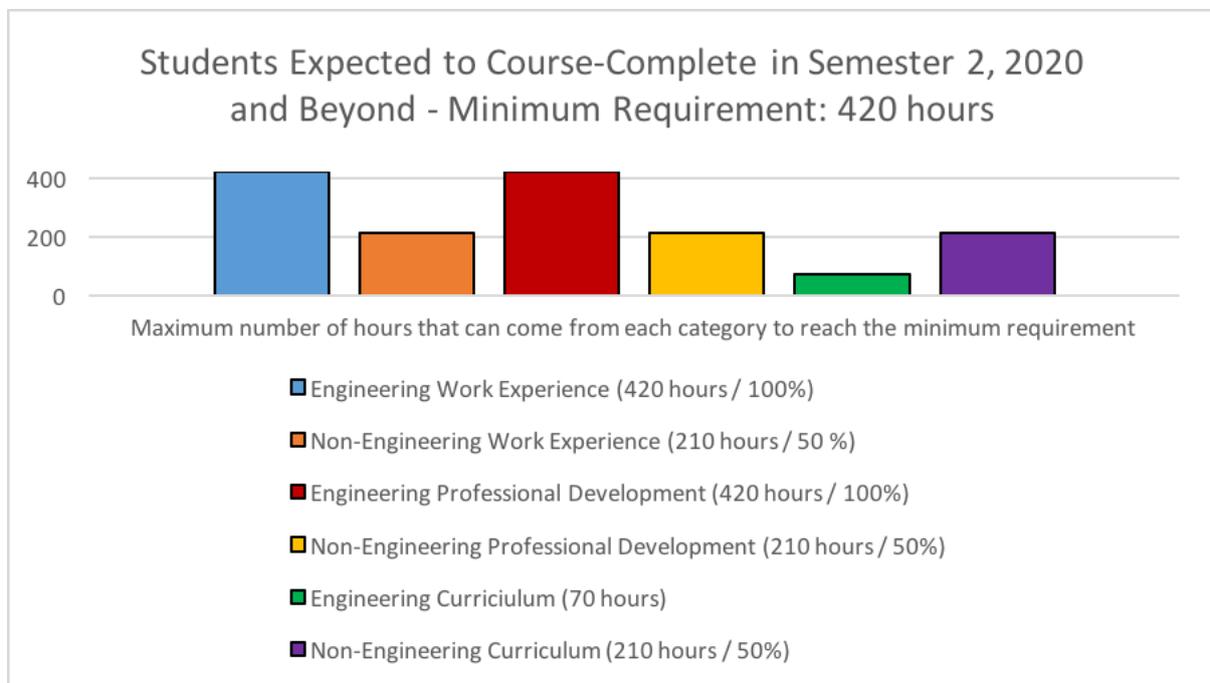
Introduction

The purpose of this guide is to inform members on what activities they can get involved in with EWB Monash, and how they can log those hours on the Student Futures website.

Participating in EWB Monash events will help you develop many of the soft skills needed to be successful in the workplace, such as communication, teamwork, and professionalism, as well as practical skills in developing solutions to real world problems. Not only that, but you'll also gain further appreciation for the work that engineers do in making the world a better place. It's a very rewarding experience, and a big confidence booster when you can see how the knowledge we learn in university can have a big impact on our society, and in future generations across the globe. Along the way, getting involved with EWB will also connect you to others who are passionate about the same things that you are, and will give you many opportunities to form interpersonal relationships that may last a lifetime.

Although this guide focuses more on CPD requirements and how EWB Monash can help with that, there are so many other important things to gain through working together with EWB, that we encourage you to keep an eye out for them and take on as many opportunities as you can.

A total of 420 Continuous Professional Development hours are needed to graduate, with 210 hours made up of engineering related activities. The graph below shows how this can be split up over the different categories.



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Filling out the Student Futures Website:

1: Select the '+ Add Activity' button in the top right corner of the page



2: Select the 'My Extra-Curricular Activities' button to add other activities for EWB.



3: Select the button to 'add an extra-curricular activity'.



4: Fill out the activity information page with the information provided in this CPD guide for each activity that you have done CPD hours for.

7: Complete the reflection section.



6: Next, select an example statement as a prompt to describe a situation where this skill applied to the activity



5: Next, select a skill used within the particular activity that you feel you developed.



School Outreach and Regioneering

About this activity:

EWB Monash's School Outreach program involves teams of volunteers going out to primary and secondary schools all throughout the state, where many engaging and hands-on workshops are run in order to inspire others to take up an interest in STEM.

Training Days

Training days are held prior to workshops so that volunteers can meet others involved with the School Outreach program, familiarise themselves with the general structure of the presentation, and get a feel for some of the workshop activities by participating in them themselves.

This gives volunteers all the skills necessary for successfully conducting the program at schools. Specifically, volunteers practice public speaking, facilitating large groups and teamwork.



Workshops

A short presentation is conducted first to introduce students to the various different types of engineering fields, as well as to teach them important appropriate technology concepts engineers must consider in their career.

The students are then encouraged to use their problem-solving skills to think up creative solutions for real world scenarios and are taught many aspects of human-centred design along the way.

Some examples of workshops that were run included the **(insert workshops here)** workshops where volunteers were able to assist and guide students in understanding this process.

OR

If you are only logging one workshop into Student Futures, then replace the last line with:

One example of a workshop was the **(insert workshop here)** workshop that was run at **(insert location here)** where volunteers were able to assist and guide students in understanding this process.



Regioneering

Regioneering involves teams of volunteers going out to rural primary and secondary where the students may not have access to as many resources and facilities as others. During this **(insert number of days here)** day trip, volunteers are given the chance to visit dozens of schools, and have an impact on hundreds of students. Volunteers acquire many soft skills such as leadership and public speaking during this trip.



What category is this activity in?

Engineering Professional Development

Hours available:

- Workshops: ~1-2 hours each. We recommend bunching up workshops if you have volunteered at more than one in a short period of time. For instance, reflecting on all workshops you have volunteered with in the span of 6 months to 1 year.
- Training days: 1-2 hours
- Regioneering: Depends on the length, but each day of the trip contributes 8hrs towards your CPD count.
- Weekly hours for those on the app tech sub-committee (meetings, role related activities)

Contact Details for reference:

Name: Audriana Arifin

Position: Monash SO School Manager

Phone: 0435774524

Email: monashuni.schools@ewb.org.au

Skills acquired include:

Communication

Describe a time you had to present complex information: An essential skill for explaining things simply, especially to younger children. Volunteers can interact with a wide range of students- from prep to high school- and so it is important to choose the language you use carefully so that all ages can understand.

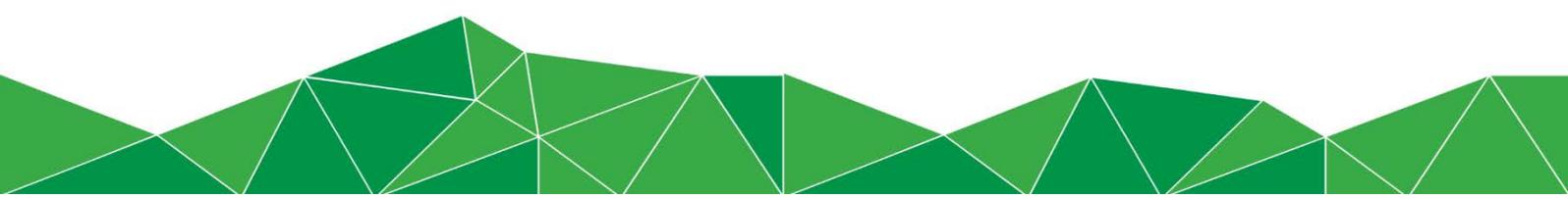
Describe a situation when you had to convey information to someone who was reluctant or unresponsive: Not all school students are interested in STEM, and problems can often occur because of this, such as bored children distracting others. However, it is a valuable skill if you can engage even those who were initially unwilling to participate.

Professionalism

Describe a situation in which it was important for you to recognise, understand and work within the rules, rights and culture of a workplace or organisation: by participating in workshops and inspiring others to engage in STEM, which is a very rewarding experience in and of itself, volunteers are contributing to the fulfillment of one of EWB's main goals.

Teamwork

Describe a situation in which you were able to contribute fully to a team effort and play an important role in the success of the team, without necessarily taking the lead: each member has their own responsibility in the team, such as setting up materials for the activity, or cleaning up the kits to be reused afterwards. Even though these jobs may seem simple, it would be impossible for the workshops to run successfully without them.



App Tech

About this activity:

The App Tech (appropriate technology) program aims to educate students about humanitarian engineering concepts such as human-centred design and appropriate technology, and how they can be utilized to enact social change. Additionally, App Tech endeavours to connect students to opportunities where they can apply these concepts.

What category is this activity in?

Engineering Professional Development

Hours available:

- Humanitarian design workshops (~1 hour each)
- Guest speaker sessions (~1 hour each)
- Doing an FYP with EWB sessions (~1 hour each)
- Weekly hours for those on the app tech sub-committee (meetings, role related activities)

Contact Details for reference:

Name: Michael Kitching

Position: App Tech Coordinator

Email: apptech.ewbmonash@gmail.com

Phone Number: 0427073596

Skills acquired include:

Creativity and Innovation

Describe a time where you had to improve or develop existing processes through creative and critical analysis: humanitarian design workshop participants analyse a case study of a real-life issue in a developing community and must design creative and innovative solutions that are also appropriate for the context.

Intercultural Competence

Describe a situation where you demonstrated your ability to recognise and respect diverse values, beliefs and behaviour: in practicing the human-centred design process, humanitarian design workshop participants are required to empathise with the particular community in context and understand their values and needs before generating design ideas.

Teamwork

Describe a time when you worked as part of a team and ensured that every member of the team was able to participate: workshop participants must work with a group of other students and ensure that all members feel comfortable contributing ideas when working towards a solution.



Design Summit

About this activity:

The Humanitarian Design Summit program is an educational overseas study tour designed to provide students with professional work experience while allowing them to develop a deeper understanding of the role Human-Centred Design and technology play in creating positive change within communities. Students gain experience in:

- Humanitarian engineering and appropriate technology
- Designing in resource constrained environments
- Working with community and clients on needs analysis and problem definition
- Evaluation of solutions including maintenance, materials and cost
- Rapid prototyping and development
- Client engagement and communication
- Cross-cultural engagement, teamwork and project management.

What category is this activity in?

Engineering Work Experience

Hours available:

Participants on the Design Summit will undertake more than **80 hours** of full-time engineering work experience during the two-week program. That is, ten days of full-time equivalent experience that meets accreditation requirements.

Contact Details for reference:

Name: Bianca Anderson

Position: Design Summit Coordinator

Phone: +61 3 8582 1866

Email: designsummit@ewb.org.au

Skills acquired include:

Communication

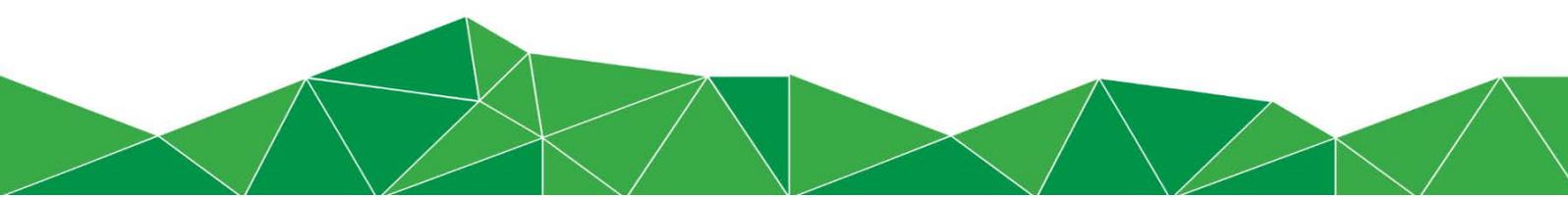
One of the key requirements of design summit participants is communication with local stakeholders through translators, which requires a significant adjustment to using simplified language and processing non-verbal communication cues.

Intercultural Competence

Participants spend 5 days living with a host family in a rural village, which allows for a much deeper and more authentic understanding of another culture and requires students to respect and adjust to new values, beliefs and behaviours.

Problem Identification and solution

Students identify a specific problem within their host village, and then spend a week undertaking an iterative design process in which numerous ideas are screened with key stakeholders and a final prototype is created to communicate the solution.



Ideathon

About this activity:

Ideathon is a hackathon-type event that is based upon the idea generation of a human-centred solution to a set problem in the context of a developing region of the world. Teams of around four students of different backgrounds and degrees come together for the weekend-long event, with workshops run by EWB group App Tech and other university groups and the support of mentors to develop an idea. The ideas are pitched at the end of the Ideathon weekend in front of a panel of judges where prizes are awarded to the winning teams.

What category is this activity in?

Engineering Professional Development

Hours available:

16-20 (depending on amount of pre-reading and preparation and post-event discussion)

Contact Details for reference:

Name: Becky Punshon

Position: Vice President

Email: monashuni.vp@ewb.org.au

Phone Number: 0407 357 819

Skills acquired include:

Creativity and Innovation

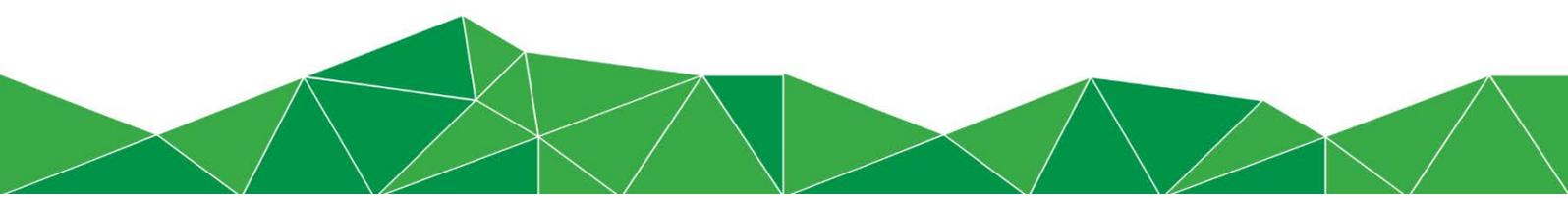
This skill could have been acquired across any phase of the ideating process - in developing a component of the idea, generating a section of the pitch or even designing a component of a policy or product.

Initiative and Enterprise

Any time someone takes on initiative within a group, took leadership, came up with an idea for a way to approach the presentation or ideating process that is new and brought something to the team.

Communication

This applies mainly to the presentation of ideas in the pitching phase of the day, where each group member is likely to present to the audience and judges their ideas and develop public speaking and presentation skills. Communication can also be a factor in group-work and discussion with other team members and mentors on the day.



Committees & Volunteering

About this activity (will need to create your own description based on role):

This page is for all miscellaneous positions within the chapter that have unique descriptions which will have to be created on an individual basis. Positions include being a member of the main committee, member of the subcommittees for Ideathon, School Outreach or App Tech, or volunteering that may occur at any time throughout semester that can be counted towards CPD hours.

What category is this activity in?

Engineering Professional Development

Hours available:

Individual Volunteering Positions – Up to 10-20 hours depending on allocation of volunteering

Committee Position – Could be upward of 100 hours dependent on time commitment and time in position.

Contact Details for reference:

Name: Rachael Welling

Position: President

Email: monashuni.president@ewb.org.au

Phone Number: 0403 382 538

Thank you for reading!

Should you have any questions, please visit the CPD FAQ website at

<https://www.monash.edu/engineering/current-students/student-industry-engagement/continuous-professional-development/frequently-asked-questions>

Any other questions related to EWB activities and to get more involved, feel free to message the chapter Facebook page, email, or have a chat to any of the members on the main committee.

