CEEDWA

The Co-operative Education for Enterprise Development

CEED Scholar

2024-2025 Manual

Welcome Letter From the CEED Director

Congratulations on your appointment as a CEED scholar.

Your CEED project is in many respects a typical research project, but you will have opportunities available to only a fortunate few students. CEED projects require more work than standard projects, but offer a broader experience. You can expect to make greater progress both academically and professionally than is possible with regular projects, and you will gain invaluable skills that comes with more responsibility.

You have been successful in your course to date, and have been awarded your CEED project in competition with other students. We are confident you can do an excellent job with your CEED project. Welcome to the CEED family!

Associate Professor Jeremy Leggoe

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1. Introduction

This manual is designed to equip you to make the most of your research project. It outlines the main features of a CEED project, and as a specific needs arises, you can refer to specific sections of this manual for more information.

What is CEED?

The Co-operative Education for Enterprise Program (CEED) is a self-funding initiative to develop productive, working relationships between the University and Industry. It provides a formal framework to link the project work of senior undergraduate and postgraduate students with the client's research and recruiting needs.

CEED projects are academic research projects sponsored by public, private and not-for-profit enterprises. CEED offers access to all UWA and Curtin schools for single school or multi-disciplinary projects. The projects themselves are defined by the Client and deal with matters of immediate business value. They are real projects with real outcomes, and have the potential to significantly enhance Client operations.

Our Program's History

1989	The CEED Program was established at UWA.
2016	Pro Bono projects for not-for-profit (charitable) organisations were introduced.
2017	CEED projects at Curtin University were offered for the first time.
2023	The Employee Project Model was launched, allowing companies who employ current UWA or Curtin students the ability to sponsor them to undertake a research project.

CEED Project Types

Full and Three-Quarter (3/4)
The Standard Client Project Model is for students that are interested in gaining invaluable industry exposure with a client, by undertaking a research project that aligns with their interest and specialisation.

These project models are suitable for Masters by Coursework and Bachelor of Honours students. Scholars continue their CEED research project throughout the academic year, over the course of two semesters. They also work with the client on their premises throughout the semester (usually 1 day per week), enhancing their overall experience.

Full Projects	Three-Quarter (3/4)
• Duration: 12-14 months • Includes vacation work (onsite work for 8 weeks during University vacation periods)	• Duration: 10-12 months • Does not include vacation work (usually selected as the scholar will complete their vacation work for another organisation)

Employee
The Employee Project Model is for students who are have already immersed themselves in the operation of an enterprise and wish to be sponsored by their employer while undertaking a research project. The scholar will continue to work with the client for the duration of the project, running over a 10-12 month period.

Higher Degree by Research (HDR)
Masters by Research or PhD projects have greater flexibility as they are not constrained by coursework timetables. Therefore commencement and duration of these projects differ, and are decided in consultation with the Scholar and Client. HDR projects can be undertaken over 3 months full-time or 6 months part-time (6 months being the preferred).

Requirements of CEED projects

1. **Professional attitude and approach**
CEED projects require you to operate as a professional in your chosen field. You will need to liaise with a number of people to carry out your work. This is true for most professional situations, but not always evident in academic studies. Apart from your Academic Supervisor, as a CEED scholar you will also be accountable to your Client Mentor and the CEED Office.

2. **Formal research partnership and deliverables**
As a CEED scholar you will effectively be a researcher working on behalf of the CEED Client. In contrast to conventional projects, you will have agreed deliverables to provide to the Client. These deliverables will need to be presented in a form suitable for the Client's use.

3. **Academic demands**
In addition to meeting your CEED obligations, you must meet all of the requirements of the academic research project unit that you are enrolled in. In general, an academic research project unit will require you to demonstrate your ability to:

- Find, review and assess critically the past work of others in the field
- Design and conduct experimental or other work to test some hypothesis
- Analyse results, draw sensible conclusions and recommend further work
- Write a concise, well structured, coherent, and comprehensive report on your work

Remember, your academic performance will be assessed on criteria like these, rather than the value of your work to the CEED Client (which is an additional goal with CEED projects).

4

External demands
Your CEED project gives you an opportunity to demonstrate your capabilities to staff at your Client's enterprise. Your performance will reflect on you and the University as a whole. You will need to demonstrate skills in managing your project, including an ability to accommodate the Client’s administrative needs (e.g. accounting and reporting).

Measurement of Success in CEED

To be successful within its broader context, your CEED project needs to meet the needs, real and perceived, of the various people and organizations involved. Will your Client Mentor, the Client’s management, and the University, be glad you worked on the project? If the answer is a definite “yes”, you will have successfully completed your CEED project. You will have developed and demonstrated capabilities which will stand you in good stead, no matter what career you choose.

Your CEED project will stretch your planning skills. However, its time-scale will afford you greater flexibility in planning, and make your project less susceptible to delays. Your attitude and willingness to plan carefully will make all the difference. You will gain the confidence and respect of all parties if you handle your project in a professional manner. This manual is designed to help you achieve that.

2. Commencing a CEED Project

Congratulations on accepting your CEED Project!

To help you on board, CEED have outlined the following steps:

1 **Welcome Appointment with the Director**
A meeting will be scheduled with yourself and the CEED Director. At this meeting the CEED Director will provide an overview of the program, and discuss the requirements for CEED Scholars.

You will be required to sign a 'Student Undertaking' document that confirms your acceptance of the project and that you understand your obligations as CEED Scholar.

As a token, you will also receive a CEED water bottle, notepad and pen!

2 **Induction**
All CEED Scholars are required to attend a CEED Induction before you commence your project. In this session, you will be briefed on the running of the program, as well as the expectations associated with working in a professional environment, and the skills needed to manage a research project. Food will be provided, however we kindly ask that you bring your drink bottle, notepad and pen.

3 **School Processes for Honours and Masters by Coursework students**
Your CEED project will replace your research project for your Research Units. If you have already been allocated a project, please advise the school (and the supervisor) that you will be doing a CEED project instead. This allows them to update their records and reallocate the project to another student.

4 **Information Needed**
CEED will need the following information and documentation from you;

1. EFT Form and Bank Confirmation
   Studentship payments are electronically transferred -
   - UWA: complete and sign (electronic 'stamp' signatures will not be accepted) a EFT form. Finance also require a document from your online banking account, that shows your name and bank details.
   - Curtin: complete the bank form in Curtin's Student Portal

2. Photo for our Website and Office
   Please provide a head-shot photo, so we can update the CEED website.
   Dimensions - Portrait, relatively close up and uncropped. Outside is preferred.

3. Polo
   Scholars will receive a polo once they complete their Project Brief. Kindly review the sizing guide before providing your size as they tend to run a little small.

5 **Social Media**

- LinkedIn: We welcome you to connect with us on LinkedIn. We use this professional platform to advertise projects/events, showcase news, introduce scholars and to connect with scholars, alumni, mentors, supervisors and other industry partners.
- Facebook: CEED does not have its own Facebook account, however, CEED may periodically post testimonials on UWA platforms.
- WhatsApp: CEED has a designated group to allow students to ask questions, and receive reminders from the Program Coordinator. It’s highly recommended you join, so you don’t miss out on important information.

6 **Project Contacts**

Contacts of all involved parties will be shared once you have signed your Student Undertaking form with the CEED Director. You will then have the opportunity to discuss specific working arrangements with the client. If you do not receive this email, contact the CEED Office ASAP.

CEED Project Timeline

CEED operate on the following timelines:

Semester 1 Commencement

Mar - Sep	Sep - Nov	Dec	Dec - Feb	Mar	Mar - Jun
Project Definition and Initiation	Student Interviews & Appointment	Full Project Induction	Full Project Scholar Onsite	3/4 Project Induction	First semester *Mar-May: Project Briefs Due*

Jun - Jul	Jul - Nov	Nov - Dec
Full Project Scholar Onsite (follow up)	Second Semester *Sep: CEED Seminar*	Submit Deliverables

Semester 2 Commencement

Feb - May	May - Jun	Jun	Jun - Jul	Jul - Nov	Dec - Feb
Project Definition and Initiation	Student Interviews & Appointment	Induction	Full Project Scholar Onsite	First semester *Sep: Project Briefs Due & CEED Seminar* (parital)	Full Project Scholar Onsite (follow up)

Mar - Jun	Jun - Jul	Sep
Second Semester	Submit Deliverables	CEED Seminar (full)

3. Project Supervision

CEED Scholar

You are responsible for your project. The success of the project will depend on your initiative and effort. It is essential you communicate regularly with your Academic Supervisor and Client Mentor. They are there to help and guide you on your research journey, but your organisation and planning is key to the success of the project.

Client Mentor(s)

Your Client Mentor is your initial contact with the CEED Client, and will arrange for resources to be made available to you. Your Client Mentor's task is to help you to define your project, ensuring that it meets the operational requirements of the enterprise. Your Client Mentor will guide you and provide input in relevant areas of their expertise, however they may or may not be an expert in on your specific project topic. Its imperative you maintain regular contact with your Client Mentor throughout the project (at least fortnightly).

Academic Supervisor(s)

Your Academic Supervisor will be your primary guide on the project, and will contribute their expertise to the project team. Supervisors are also responsible for the academic oversight and assessment of CEED Scholars' work. Is vital to maintain regular contact with your Supervisor (at least fortnightly), even when you are working on site.

Deputy Mentor/Supervisor

Please ensure you have the contact details of a Deputy Mentor and Academic Supervisor as soon as possible. This will be needed in case your primary Mentor/Supervisor become unavailable at any time during the project (e.g. leave, sickness).

Project Team

Regular meetings with the full project team (Scholar, Academic Supervisor and Client Mentor) should continue throughout the semester to make sure everyone is on the same page – fortnightly to monthly being the ideal frequency.

CEED Scholars are required to keep the Project Team informed of progress at all times. If at any time you feel communication or other project activity is deficient, please make early contact with the Supervisor or the CEED Office (as appropriate) so the problem can be addressed quickly.

4. Getting Started

The first few weeks are a crucial period for the project. How well they are used will affect its success. One or two meetings will be needed with the project team to determine and define the key features of the project.

You may find at this early stage, the project is not fully defined. Some early work may be needed to fully determine the direction of the project. To clarify this, you will need to:

- Define the existing situation
- Define the final situation/outcomes desired by the client
- Define the issue/problem to be handled and its boundaries

You are encouraged to keep a record of all ideas considered because they may become significant later or help you retrace your steps. Factors “eliminated” can still play a role in defining the project, even though they may not be directly related.

Early Key Targets

In your first few meetings with your project team, your key areas to discuss/develop include:

- Start developing a good working relationship with your project team
- Gain an understanding of your project and its constraints
- Determine and document primary outcomes for your project and outcomes that are desirable if you have sufficient time
- Draft a preliminary timetable (don’t agree to commercial deadlines, but do be aware of operational constraints that may affect timelines, such as the accessibility of sites or resources)
- Ascertain which UWA/Curtin resources may be relevant and available
- Discuss any special equipment or expenditure required, and agree how these will be provided
- Confirm procedures for obtaining approval on any expenditure (See 'Project Expenses' for more information)
- Identify other CEED Client personnel with expertise useful for your project
- Agree on communication channels and meeting frequency (at least monthly for the full team – individual meetings with your Academic Supervisor and Client Mentor should be more frequent)
- Exchange the names of “Deputy” Mentors and Academic Supervisors
- Familiarise yourself with the project’s working environment
- Find out which Human Resources Department people need to be contacted (for example, to grant access to sites or offices, or access to organisational computer systems)

Before Starting Onsite

Before you commence site work with the client, you should have

1. Participated in the CEED induction
2. Confirmed dates, location and duration for site work with the Client

3 Confirmed special requirements for the site work period (e.g. medicals, special clothing)

4 Undertaken induction and safety proceedings at the Client's premises

While we all hope your CEED project start-up will go smoothly and according to plan, sometimes there are unavoidable delays. Aim to achieve as much as possible before you start site work. In some cases that will not be possible, in which case, simply achieve what you can and aim to get the rest done in the early part of the first site work period.

The extent to which you are able to make progress on the actual solution of the problem before starting site work will vary depending on your start date. Regardless of the start date, helpful goals would be to:

- Know exactly what you are setting out to achieve, and why
- Have planned how you will set about tackling the work
- Have requested the resources needed at the CEED Client's site and the university
- Have started accumulating relevant reference material
- Have set up the structure for your planning and documentation system
- Have begun to build up key skills and knowledge
- Be ready to outline your approach in a brief presentation

Satisfying Multiple Project Needs

Your project must also satisfy the needs of more than one party:
- You need to demonstrate your academic capabilities, and
- Your CEED Client needs to see real progress in the research, and expects certain deliverables to be achieved.

Both requirements must be met. Achieving this will require you to develop precise objectives for your project, and have a clear understanding of which parts satisfy each need.

It may take sometime, but once you are able to confirm the Deliverables the Client wants from your project, and how the Client would like to benefit from the application of your findings and recommendations, be sure to check in with your Academic Supervisor. It is important that the process of generating these Deliverables will provide sufficient challenges to meet your academic assessment goals. Should there be insufficient academic hurdles, discuss with your Academic Supervisor the addition of extra material and objectives. Most Clients have no problem with this, and are happy to accommodate such needs. Make sure any such additions are tailored to obtain maximum benefit to the Client.

Check List for the Initial Team Meeting

You can add extra questions as appropriate, but use the following check list to help you build the list of questions you will use to obtain the necessary information from your Client Mentor at your initial meeting:

- ☐ What is your role at the company? Who are the other key players within your organisation?
- ☐ What is the main way you wish to benefit from the research project?
- ☐ What would you like to have as the primary and secondary outcomes for your project?

Other questions include:

- ☐ In what form do you want the project outcomes (e.g. report, software, working item, etc.);
- ☐ What would be suitable "milestones" for the project (noting any operational issues, such as shutdowns, that may influence the timing of project activities)?;
- ☐ What constraints (if any) does your organisation need to impose on the project approach (e.g.. to fit other activities, standards, products or policies)?
- ☐ What sort of resources do you think may be needed? Does your organisation already have access to these?
- ☐ What resources (e.g.. labs and equipment) do you hope UWA/Curtin can provide for the project?
- ☐ How will the project be handled if particular resources are not available when needed?
- ☐ Will any equipment or other items need to be ordered specially for the project? If so, is information needed? By when? Who will order them?
- ☐ Will special test rigs be needed? Where will they be built?
- ☐ Is there information you need urgently from the CEED Scholars for budgeting purposes?
- ☐ What mechanisms will be used to obtain approval on any project expenditure?;
- ☐ Which of your personnel have an interest in the project outcome, and/or expertise relevant to the project?
- ☐ Agree on communication channels and frequency of CEED Scholar reports. What days and times are good (or bad) for making contact with you?
- ☐ Who will act as a Deputy Mentor if you are unavailable for any length of time?
- ☐ When can the CEED Scholars and Supervisor go to site to familiarise themselves with the project's working environment?
- ☐ Are there any special requirements for the vacation work (e.g.. medicals, safety inductions, special clothing)?
- ☐ Agree on duration and dates of vacation project work. Some CEED Scholars may like to spend more than the normal 8 weeks. (Any agreed extension can be spent on the project, or as an employee performing other activities).
- ☐ Will your Human Resources Department need to be involved? If so, how should the CEED Scholar make contact?
- ☐ Identify the expertise the Supervisors (and academic colleagues) can and cannot contribute;
- ☐ Identify alternative sources of expertise at UWA/Curtin if necessary

5. Planning for Success

Gathering Information

Gathering information needed to plan and undertake your project can, in some cases, be quite demanding. CEED Clients' understanding of what the project involves may be clear, but in some cases it will only become clear after some investigation has been undertaken. Some know exactly what their desired outcomes are (what they want to achieve), and can give you a precise definition. More often they are not sure what the project can achieve, or may be unclear in the exact questions that should be asked.

This can be a challenge for CEED Scholars – in almost all of your education to date you have been set well-defined problems and outcomes (often with all the required information neatly packaged with the problem). It is, however, a characteristic of professional reality, as you will work in environments where different groups have different priorities and/or understanding of the issues at hand. Gathering information will accordingly be an essential element of bringing the project stakeholders into alignment and defining the desired deliverables.

Sifting through the facts and defining the problem should not be regarded as an imposition; rather, it is a vital part of your project. It has a valid place in your final thesis/report and should be approached with enthusiasm and urgency. Even if you receive a firm definition of the problem from your Client Mentor, you should always be mindful of ensuring that the resulting outcomes are appropriate to the CEED Client's needs. Any perceived conflicts should be discussed with your Client Mentor and Academic Supervisor as they arise.

Literature Review

The first step in any research effort is to undertake a thorough review of the literature in the project area. A literature review is an essential element of a well-rounded thesis, and provides the impetus for a well-founded research project.

This review should continue as you accumulate experience throughout your project, but the early stages of the review are critical to the planning process. By becoming knowledgeable on your project topic at an early stage, you will be able to ask well-informed questions of your CEED Client and Academic Supervisor during the planning process.

In addition to the obvious head start this will give you in developing the Project Brief, displaying a knowledge of the topic will impress the CEED Client and give them confidence in your ability to undertake the project. Earning this positive early impression can enhance your project by raising the CEED Client's enthusiasm for you and the project, and may help get you access to additional opportunities and logistical resources as the project proceeds (people want to work with people who are putting in the effort and doing good work!).

There are powerful tools available to support a literature review, including search engines such as Google Scholar. The library also makes available a variety of web based databases that can be used to search for peer-reviewed journal articles, books, and conference proceedings dealing with advanced scientific research. These may be accessed via the “OneSearch” link on the UWA library’s main web page (onesearch.library.uwa.edu.au).

For engineering, for example, two of the major indexes are “Compendex” and the “Web of Science”; both are available at UWA. For other specialties, equivalent databases are available. Both Compendex and Web of Science provide a relatively intuitive search engine for technical papers – you may search by keyword, author, or title, amongst many options. The result will be a list of papers drawn from a database including the vast majority of scientific journals. Both are accessed simply by typing their names onto OneSearch – then click the “Available Online” link that appears with the search results and follow through. You may need to log in using your Pheme password to access the resources (especially if you are off campus).

The effort in accessing Web of Science is worth it, as it is a powerful tool in the hands of an expert researcher. The “Web of Science” database provides a Citation index – so in addition to merely identifying papers, it will tell you how many times they have been cited. This is an important indicator of the importance of a paper for experts in the field. It also permits you to list the papers that have cited a particular paper – when you identify an older, fundamental paper, this can be a very useful tool, as you can follow the citation trail to get the latest thinking and data that has emerged in a particular area.

The important thing to remember when undertaking a literature review is that the word “review” is important – it is essential to read the material found carefully and critically. You must determine how directly the material applies to your own work (were the conditions the same? How has the field changed? Is your work heading in a new direction?). A good paper or book chapter will also be well supported by references, and in reviewing those references, you can often identify older, more fundamental, material that can help you better understand the topic.

As important new research is to the field - do not limit your consideration of literature to recent works. Older, seminal works are often extremely useful. Often fields evolve their own jargon over time, and the work becomes increasingly specialized. Fundamental papers, especially those in which an area is addressed for the first time, can often make it easier to understand a field – being the first time that a phenomenon is described, the language and terminology can be easier for lay reader to absorb, and the fundamental theory is often more clearly laid out. The basis and limits of a particular approach can also often be more clearly identified in the original papers. So don’t ignore the dusty old journals! In many fields, the basis of current thinking was laid out a long time ago.

6. Workload and Time Management

Workload Expectations

During the semester, your commitment to the project should match the number of credit points allocated to the research unit you are undertaking. Being a full time student is really a 5-6 day a week job (realistically, a 40-50 hour per week job) for successful students. That being the case, for a 6 point research unit we would expect CEED scholars to allocate 1.25 to 1.5 days a week to their CEED project (10-12 hours).

It is important that you balance your workload across all your units during the semester. It can be easy to fall into the trap of focusing on whichever unit has the nearest deadline, ignoring other units. That can be especially harmful to research projects, as you can lose momentum – the most successful projects tick along steadily, rather than being undertaken in pressurized bursts as deadlines approach. Be sure you adhere to allocating the required time to your project every week. This will require you to take a similar approach to your other units. In particular starting on assignments when they are assigned, rather than at the last minute, so that you can maintain a balanced workload. This should actually improve your performance in all units. This can be a particular challenge when you have units that include group projects, where you have to fit in with others. If the deadline for a group project is at the end of a week (say Friday), then allocate time to your CEED project at the start of the week (Monday/Tuesday), when you will have more control of your time and don't have to coordinate with others.

Using CEED Requirements to your Advantage

CEED projects do impose additional requirements – in addition to meeting all of the submissions required by your research project unit, you are also expected to prepare a Project Brief, submit monthly reports, and prepare a paper and present at the CEED seminar.

- Used astutely, the CEED requirements should assist and enhance your unit submissions. As the CEED program cannot control the assessment of your project units, it is not usually possible, for example, to submit your Project Brief as your unit project proposal (required in Engineering final year projects). The requirements and importantly assessment rubrics are different. However, if the Project Brief is prepared before the project proposal is due (as should normally done if the brief is prepared on schedule), then it should be possible to use a significant amount of the material from the brief in your project proposal. As your project proposal is reviewed and refined in consultation with your Academic Supervisor, Client Mentor and the CEED Office, this should help ensure that you have high quality material to include in your proposal.
- Similarly, once you've prepared and delivered a CEED seminar presentation, you are well prepared for the school seminar presentation that will be assessed for your unit. The CEED seminar paper is also helpful. For most students, it is prepared at a time when you should be starting to prepare your final report/thesis, and can help you formulate your ideas and start to frame that report.
- While there is no equivalent for the Monthly Reports in research project units, the act of preparing them is important in helping you to keep on track and maintaining momentum

in your project. It is in fact one of the factors that sees CEED students make much better progress than the average student, who can often drift in the absence of regular reporting.

One of the advantages of a CEED project is that you spend more time working on the project. This gives you time to develop a deeper understanding of your project, and deliver more substantial results.

Onsite Work Commitments

For full projects, your work will usually be distributed between the CEED Client site and the University. You will need to discuss with your Academic Supervisor and Client Mentor where to spend the majority of your time on site, and how best to schedule that time.

During semester time, while you are nominally expected to spend most of your time on campus, many clients will extend your access to site during the semester so that you can access resources needed for your research. Many CEED scholars continue to work on site 1 day per week during the semester. While this is not mandatory, if the opportunity is available it is encouraged, as it gives you a chance to focus on the project without the distractions of campus, and helps you maintain your connection to the Client and your Client network.

During vacation work, you are expected to work on site full time for 8 weeks. Your working day/ week should be consistent with the usual expectations for staff at the client's organisation that would typically be 37.5 hours per week. Again, arrangements will need be made with the Client directly.

Time Management - Gantt Chart

It is essential that you establish a schedule for your CEED project. A simple and useful technique is the Gantt chart, which summarises the resource needs for the various parts of your project. Noting this chart is also to be included in your Project Brief.

A simple series of steps can set up a Gantt chart:

1. List the activities in rough chronological order
2. Establish which activities can be done concurrently, and which depend upon prior completion of others
3. Estimate how long each activity is likely to take. Consult your Academic Supervisor and Client Mentor as necessary on this because experience is needed. Always err on the generous side and then leave an extra margin for delays. You are otherwise likely to underestimate the time taken.
4. Draw axes, with the horizontal axis divided into convenient time periods (e.g. Weeks)
5. Starting with the chronologically first activity at the top of the vertical axis, draw a rectangle (or line) representing the estimated time required to complete the activity
6. Add the remaining activities, placing them so that they are not scheduled to commence before completion of any “prerequisite” activity. Where possible, schedule the later activities to allow some “reserve” time in case the prerequisite activity is completed late. You may choose to start scheduling the later activities (e.g. writing up your thesis and CEED report) from the project completion deadline because that is inflexible. In that case, you would effectively be working from the ends towards the middle.
7. Extend each rectangle forwards with a dotted line (or similar) as far as the next activity for which it is a prerequisite. This indicates the measure of flexibility on this activity (see Items

1 & 2 in figure below). Items without flexibility are effectively "critical". Delay in completing these will delay the whole project.

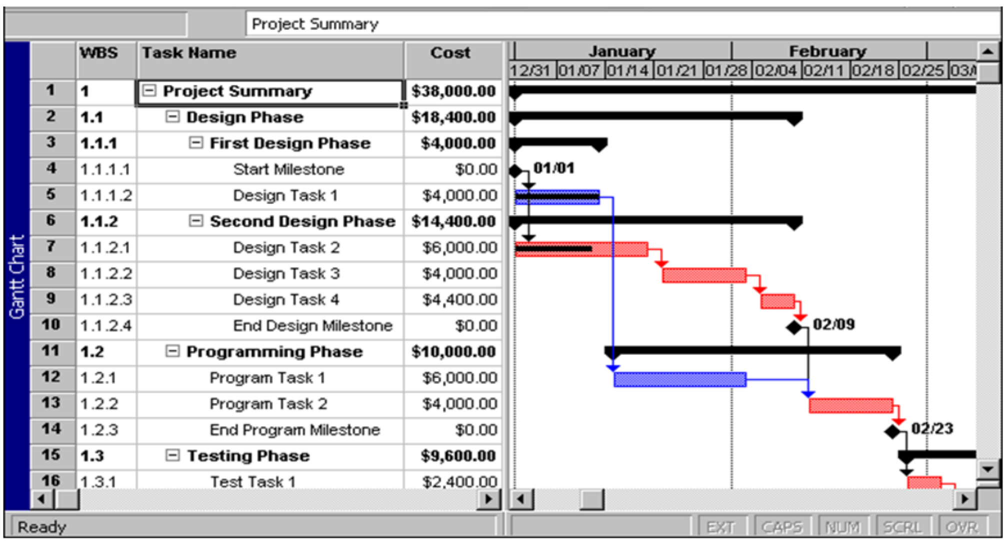
8. Activities requiring particular resources can be shaded differently, or shown separately if required, to identify easily when they occur.
9. To assess the demands on a given resource (e.g. your time) during any period, you can make a histogram at the bottom of the Gantt chart, totaling the number of rectangles in parallel during that period (see diagram below). Having put the project resource demands onto the Gantt chart, it is wise to include your other academic load so you can allow time to complete major assignments and revise for examinations.
10. Pay particular attention to identifying items on the critical path – those items that are pre-requisites for subsequent activities. These items must be scheduled with great care, as a delay in such an item will delay subsequent items and potentially the entire project.

It is important to assess the "balance" of your Gantt chart – the majority of the items in the chart should be research activities, rather than submission/assessment activities. If less than 75% of the activities in the chart are research activities, then you haven't given enough thought to how you are going to accomplish the research.

If at the end of this scheduling process, you find insufficient time to complete all the items you expected, or too much occurring at one time, you will need to reassess the workload and project expectations with your Academic Supervisor.

Keep your Gantt chart up to date - Your Gantt chart should be updated as the project progresses, so that you know the current status of the project, and you know the demands on your time and other resources for the remainder of the project (and can make plans/adjustments accordingly). Make it a practice of taking your chart to all meetings with your Academic Supervisor and Client Mentor as it can be a great help when assessing possible courses of action.

Preparing your Gantt chart - Microsoft Project is a good software package that provides flexibility in the development of the Gantt chart. It is available in the school computers in Engineering, and should be accessible via UniDesk for all disciplines. As an alternative, you can construct and revise your Gantt Chart manually, using software such as Microsoft Excel (tutorials can be found online).



7. The Project Brief

What is the Project Brief?

The Project Brief defines the Scholars’ project, and is a major key to project planning. It defines the desired outcomes, the current situation, the scope of work, project details, methodology, constraints, resources and the specific deliverables required by the Client.

It also;

- Summarises the background to the issue, in the literature and within the client organization
- Defines the objectives to be achieved, and the desired bottom line benefits that the client wishes to derive from achieving those objectives
- Defines the methodology to be used to achieve the objectives
- Defines the project timeline and milestones
- Identifies which parties are to provide the necessary resources
- Identifies interfaces with other parties; suppliers of physical resources, finance, or information
- Sets out the procedures by which publications and presentations are to be approved for public release
- Defines the nature and format of the project deliverables
- Perhaps most importantly, provides the scholar with a plan to coordinate the project effectively

The Project Brief draft should be submitted roughly 6-8 weeks from the commencement of the project:

- Full Projects - Start of Vacation Work or start of Semester (whichever comes first)
- 3/4 Projects - Start of Semester

Project Briefs should be finalised and signed by all parties (after feedback and modification to the satisfaction of all stakeholders) within 8-10 weeks from the start of the project.

Getting Started

Your first major CEED project task is to develop a tight definition of the project in consultation with your Client Mentor and Academic Supervisor. You should remain in consultation with your Project Team throughout the development of your Project Brief, as it is an important opportunity to test out ideas and raise issues. Your initial literature review will help to inform these consultations. Remember that you are the person responsible for developing and managing your Project Brief. Others are vitally interested, but you are the creative author and in charge.

Establishing clear outcomes for CEED projects are essential to the success of the project. This process is not always simple because you may not yet be aware how much can be achieved with a CEED project, and the issue being investigated may not yet be fully understood.

It may be desirable to define a range of outcomes, with varying priorities. If this is done properly at the outset, it makes it easy for outcomes to be evaluated and adjusted as the project progresses. Especially if it becomes apparent that certain outcomes can or cannot be achieved (alternately, as the project progresses it may become evident that additional or alternative outcomes may be desirable).

Step-by-Step Process

Cover Page

This page is intended to be a standalone document as well as being a cover sheet for the detailed Project Brief. It is NOT an introduction to the Project Brief. Your Client Mentor should be able to circulate to leaders in their organisation, so that they can get a snapshot of what you are doing.

It gives the following information:

- Project title & CEED Project number;
- Client organisation;
- Summary project description (which should identify the project Deliverables, and the potential benefits to the client);
- Student;
- Client Mentor(s);
- Academic Supervisor(s).

Summary

The project summary provides a clear, concise synopsis of the project. It should briefly identify the reasons for undertaking the project (with emphasis on relating those reasons to the needs of the client enterprise), the objectives of the project, and the business value in achieving those objectives. It should then proceed to identify the methods by which the objectives will be achieved, and the total costs that may be expected (excluding the original project fee). The key Deliverables must also be identified. The length of the summary must be limited to ensure that the summary, the headings above, and the names below appear together on the cover page.

Section 1 - Project Background

1.1 Problem Statement

The problem statement describes the specific issue (or issues) to be addressed by the project. The nature of this statement will obviously vary according to the nature of the issues. For technical problems, it may be appropriate to incorporate diagrams, graphs or tables illustrating the nature of the problem. For business and financial investigations, it may be useful to present relevant financial data.

This section should also discuss the implications of the issue for the client organisation. For operational problems in a plant, this may include environmental, health and safety issues, potential production loss, or maintenance requirements. For a design problem, the project may investigate improvements that allow the Client to compete more effectively or enter a new market. For projects dealing with organisational practices, the problem may affect the efficiency or effectiveness of operations or the delivery of services. In other cases, the project may simply help the Client develop a thorough understanding of an issue, which will help guide future policy formulation or planning.

1.2 Background Information

This section should consider existing knowledge related to the issue that will affect the progress of the project. If not already covered adequately in the problem statement, this section should start by summarising the current situation of the Client.

- How is the issue presently being handled?
- What is the current understanding of the issue?

You should then proceed to discuss the history of the issue in the Client organisation or other affected stakeholders (internal and external organisations, communities).

- How has the past history influenced the current situation at the Client?
- How did the issue develop?
- Have previous attempts been made to address the issue, and, if so, how successful have those attempts been?

Tracking down and discussing this history is critical if your project is to avoid "reinventing the wheel". You should then go on to discuss any relevant information that you have gathered through the early stages of your literature review. If there alternate technologies that are to be considered, they should be described here. If similar studies have been reported in the literature, their findings should be summarised here.

1.3 Current and Future Client Environment

In planning a project, it is important to understand the ways in which the current environment at the Client organisation can affect the project, and can influence the motivations for undertaking the project.

- Does the client have access to a new piece of technology that can be applied to the project?
- Is there a particular group of staff available to support the project?
- Has new data become available that has not been previously been available for consideration?
- Have new motivations emerged for pursuing an issue? For example, a Client may have adopted a "carbon neutral" approach that dictates the retirement of old technology.
- Are any organisational changes expected to occur in the project time frame?

It is also critical to understand the environment in which the project's findings and Deliverables will operate, and to consider any expected changes in that environment.

- Is new equipment scheduled to come online?
- Will new data become available?
- Are plant upgrades likely?
- Could political or legislative change affect organisational policy?
- Are operations subject to fluctuations in the price of a commodity?
- Is an organisational restructure, or a change in ownership, likely to occur in the foreseeable future?
- Will client staff require additional training in order to effectively implement your recommendations?

Any expected changes should be taken into account in the formulation of the project Deliverables and Project Brief.

As an example, in one previous CEED project the objective was to provide a framework for deciding between two options. During the course of the project, it was necessary to base that decision on assumed data (or data sourced from the literature). However, it was known that the Client organisation was establishing a new working group that would gather hard experimental data over the next several years. As a result, the decision framework was designed in a way that permitted it to be used in conjunction with the “hard” data as it became available in subsequent years.

Section 2 - Project Objectives and Benefits Analysis

2.1 Objectives

This section will describe in detail the specific objectives to be pursued by the current CEED project. The importance of each objective should be assessed in the context of the background material provided in Section 1.

Note the difference – Section 1 will define the full scope of the issue. Section 2.1 will discuss specifically what is to be addressed in this project.

2.2 Benefits Analysis

This is one of the most important elements of this (or indeed any) Project Brief. You must describe the business value that will be realized through the implementation of the project Deliverables, taking into account the form in which those benefits will be realized by the Client.

In many cases, this will entail assessing the positive financial consequences of achieving the objectives (or, conversely, the negative consequences of failing to address the issue). In such cases, examples would include:

Cost savings expected from an improvement in practice;
The cost of production losses that may be incurred if the issue is not addressed;
A reduction in manufacturing costs per unit, and thus an improvement in the competitiveness of the manufactured goods;
The impact on one or more of the client’s Key Performance Measures;
An increase in sales, market share and/or net profit.

The benefits sought will not always be exclusively financial in nature:

- An environmental, health or safety issue may need to be addressed, or an assessment may need to be made to determine whether there is an emerging EHS issue;
- By assessing current practice, a project may enable more efficient deployment of resources; as an example, for government organisations, there may not be a profit motive, but more efficient deployment of resources may help the organisation improve the delivery of services for a given budget (for example, road improvements may reduce accident rates; targeted police deployment may reduce the number of offences committed, etc);
- The provision of an accurate report may enable the formulation of equitable policies in future (for example, a review of regional indigenous history may guide the assessment of native title claims and negotiations).

It should be noted that in many cases the benefits may be a combination of financial and non-financial benefits:

- In environmental issues, the direct benefit may be in reducing emissions to an acceptable level, but there will be ultimate financial benefit in that plant may be forced to shut due to excessive emissions;
- In safety issues, it may be essential to eliminate a safety hazard, but again there will be financial benefit in that accidents usually force plants to suspend operations at least temporarily.

In light of the current and future environment at the Client Enterprise, the project Deliverables, and the associated benefits, will generally have a finite life. You should discuss the expected future life of the Deliverables and benefits within the client organisation:

- Are there any specific conditions that will limit the useful life of the Deliverables? Are these conditions likely to emerge or change?
- How may the Deliverables be adapted to extend their life as the client environment changes?
- Are there future changes that will enhance the benefits realized? Will the Deliverables enable the client to take advantage of anticipated changes in circumstances?

Section 3 - Project Execution Plan

3.1 Methodology

This section describes the “process” by which the project objectives are to be achieved. The nature of this process will vary according to the type of project, but for all projects you should break down the project into specific tasks, and describe the approach that will be taken to accomplishing each task.
It is important that you provide extensive and specific detail on the technical and logistical aspects of the planned process. For experimental tasks, describe the experimental equipment and specific techniques that will be employed – it’s not enough to say “testing will be done”.

You must address:

- The test method (e.g. is a standard test method being applied);
- The number of tests to be undertaken;
- The number of specimens to be created/collected;
- The test time frame (this may be critical if the experiment is in an operating process).

For modelling tasks, identify the software packages and computing resources that will be used, or the platform for the development of any new software. For theoretical tasks, identify the approaches under consideration or that will be developed. For design tasks, identify the tools or approaches to be used for each task. For literature review tasks, identify the databases/indexes and bodies of literature that will drive the review. Obviously, a single project will often include examples of each of these types of task.

For CEED projects, it is important to identify any constraints imposed on the methodology due to the needs of the Client. Examples of such constraints would include:

- The use of a specific type of test (due to the Client’s need to comply with organisational or regulatory requirements);
- The use of specific modelling software (such as Finite Element or CFD packages);
- The use of specific standards (to comply with Client practice);
- The use of specific programming languages or tools (to comply with the tools available at the Client).

3.2 Project Timeline (Gantt Chart)

The project timeline describes the sequence of tasks, and the expected initiation and completion dates for each task. A graphical approach, in particular a Gantt chart, is usually the best way to describe the project timeline, and as such is required in the brief. It is important to identify the tasks that form the critical path for the project, and to take particular care in the scheduling and management of these tasks.

The focus here should be on the research tasks – a common failing is to focus too heavily on unit submissions. Assessment items are of course important, but the research is more important – without it you have nothing to submit! At least 75% of the tasks in your timeline and milestones should be research tasks – if more than 25% of the items relate to assessment or administrative submissions, the balance is wrong.

You should break the larger tasks down into smaller sub-tasks – ideally 1-2 weeks in duration. Being able to track progress is important – both in terms of making sure that you are sticking to your timeline, but more importantly in terms of feeling that you are making progress. Students often find the widely spaced deadlines of research projects daunting – that feeling of progress can greatly help your state of mind during the project.

In the text, you should provide in list or tabular form a summary of the key project milestones and dates. You must also provide text discussing any key constraints on the proposed timeline:

- The availability of test equipment;
- Lead times for expenditure approval and /or equipment delivery;
- The availability of personnel to assist in data collection;
- Times that a particular site can or cannot be accessed;
- Absences of the Client Mentors or Academic Supervisors;
- Lead times for client approvals of publications (the conference paper and thesis).

3.3 Resources

It is important to identify the resources needed to accomplish the processes described in section 3.1. It is critical to provide a breakdown of who will be providing each resource (UWA or Client) – there's no point specifying a test that neither party is capable of doing or arranging. Be sure to discuss the plan with your Client Mentor and Academic Supervisor, to make sure there are no misunderstandings as to the availability of equipment. You should also identify whether resources are currently in place, or whether they will be developed during the course of the project.

Provide a detailed breakdown of any costs to be incurred, including an estimate of the costs (as refined an estimate as can be made at the time of writing). Note that the client will have to agree in advance to any expenditure before it can be incurred. Also note any constraints imposed on the cost, such as any upper limit imposed on the total project budget by the client.

3.4 Risk Management

One of the most important elements of project management is to understand potential problems, or "risks", that may affect the project, and to identify "risk management" strategies to eliminate or mitigate these risks. Research projects are subject to a variety of factors that can hinder a CEED scholar's progress, such as:

- Failure or unavailability of critical experimental equipment;
- Unavailability of data or facilities at partner organisations;
- Changes in the business situation of industrial partners;
- Failure of a key technique to deliver the results needed to achieve the objectives;
- Extended absence of the Academic Supervisor or other key personnel;
- Delays in workshop fabrication;
- Unavailability of funds to create experimental facilities;
- Loss of data (through computer failure).

By recognising risks and developing risks management strategies at an early stage, you overcome apparently catastrophic circumstances to deliver a successful project. Indeed, simply being aware of the risks may enable you to avoid the most catastrophic circumstances. Risk management approaches could include:

- Developing alternate plans or objectives in the event of equipment loss;
- Identifying research paths that are not necessarily dependent on the continued cooperation of an industrial partner;
- Identifying alternate techniques that may provide useful data in the event that the preferred approach does not work;
- Developing strategies to ensure security of data.

As an element of the Project Brief, you are required to identify and describe the risks affecting their proposed project, and to describe strategies for eliminating or mitigating these risks. For each risk, you must provide:

- A brief description of the risk;
- The likelihood of the risk eventuating;
- The consequences of the risk;
- The management strategies to be adopted to mitigate the consequences of the risk.

In classifying the likelihood and consequences of the risk, the guide listed in table 1 below should be followed.

Likelihood	**Description**
Probable	The event is expected to occur in the time frame of the project
Possible	The event is not expected to occur in the time frame of the project
Improbable	Conceivable but highly unlikely to occur during the project
Consequence	**Description**
Severe	Most objectives cannot be achieved
Major	Some important objectives cannot be achieved
Moderate	Some objectives affected
Minor	Minor effects that are easily remedied
Negligible	Negligible impact on objectives

Table 1 Guidelines for classifying the likelihood and consequences of risk factors. (Based on HB 436:2004 Risk Management Guidelines – companion to Australian Standard AS/NZ 4360:2004)

3.5 Personnel and Communications

To ensure the smooth progress of the project, it is important to list in the Project Brief the names, positions and contact information of all personnel at the Client organisation who will be involved in supporting the project, along with the staff involved at UWA. This should be done in table form, as illustrated below.

The next step is to set out the planned schedule for meetings and reporting. You should list the frequency (e.g. fortnightly, monthly, and quarterly) and location of any planned project meetings. If there are any requirements for periodic reporting (above and beyond the monthly reports that you are required to provide), this should be specified in this section.

Finally, you must list any specific reporting requirements for your project. Your client may require that approval be given for you to undertake certain portions of the project. For example, you may need to contact client staff, customers or stakeholders, and the client may wish to pre-approve the contact list and approve the form of the contact (such as the form of any questionnaires or surveys). The client may also need to be involved in approving the design of any experimental equipment or procedures. The Project Brief must list any such requirements, along with the communication protocols to be followed in each instance.

Name	Position	Phone	Email
Joe Bloggs	Operations Manager (Client Mentor)	(08) 1234 5678	joe.bloggs@company.com.au
John Doe	Operator (Deputy Client Mentor)	(08) 1234 5678	joe.doe@company.com.au
Dr. Jane Doe	Academic Supervisor	(08) 1234 5678	Jane.Doe@uwa.edu.au
Kimberlie Hancock	CEED Admin Office	(08) 6488 3130	ceed@uwa.edu.au
Dr Jeremy Leggoe	CEED Director	(08) 6488 7315	jeremy.leggoe@uwa.edu.au

Table 2 Key Project Personnel

3.6 Confidentiality

In many projects, the client's business interests will require that some or all of the information produced during the course of the project will need to be held confidential. It is also common for clients to require students to hold information provided by the client during the course of the project in confidence. In some CEED projects, specific contracts include clauses dictating confidentiality requirements; the standard CEED Project Agreement also includes some generic clauses related to confidentiality.

In the Project Brief you must define the specific confidentiality conditions and procedures for your project. This will require determining the manner in which you will meet your obligations to the Client while still meeting the requirements for assessment in your School. This section should accordingly include:

- The nature of any material to be held in confidence;
- The nature of the restrictions imposed on any publications and presentations;
- The procedures to be used for approving publications and presentations for release;
- The period over which material must be held confidential (note – some typical conditions are included in the CEED Standard Project Agreement; additional conditions may be imposed if there is a specific contract for your project).

Note that in addition to the CEED Seminar, your project unit will usually require some form of public presentation – it is your responsibility to ensure that you are able to comply with the requirements of both the Client and your unit. In determining the confidentiality conditions for your project, you should inform the Client of the assessment procedures in your School; they should be aware of the materials you will be expected to submit for assessment, and the range of people that will be involved in the handling of these materials. This will help the client to plan any approval procedures.

Your unit coordinator will be able to assist if you need to arrange a confidential presentation - but you must give them enough lead time, and you must make them aware that a research agreement exists between the University and the Client (in the form of the CEED contract and the Project Brief) that sets out the University's obligations for handling confidential material.

The confidentiality section is one of the most common areas where changes are needed to the first draft – despite its critical importance, the publication approval process is often omitted. Make sure you don't make this error!

Section 4 - Deliverables

List the Deliverables, specifying the format they are to be delivered in. Each deliverable must be specific, and well defined – there should be no room for confusion as to what will be delivered.

The Deliverables should be arranged as a bulleted list, as follows (with examples);

- Project Report – This may simply be your thesis. If so, it should be specified as such; if not, the way in which the report provided to the client differs from a conventional thesis should be described.
- Matlab Program for performing Model Calculations.
- Manual for the Matlab Program – a text document containing comprehensive instructions for Client staff using the program.
- etc, as necessary…..

Section 5 - References

References should be listed on a separate page. The APA citation style must be used.

Finalising Project Brief with Signatures

To fully execute or finalise the Project Brief, signatures from the Academic Supervisor(s), Client Mentor(s) and CEED Director must been placed on the same document, either by electronic or physical signatures. The CEED Office will circulate the final executed Project Brief to all parties via email.

Draft Project Brief
Once your Project Brief draft is complete (i.e. once it has reached a stage where it you believe that no further changes are required), it should be collectively emailed to your Academic Supervisor(s), Client Mentor(s) and the Program Director for revision (Cc CEED Office).

It should expected that all parties provide feedback on the document, and you should be prepared to act on the feedback. It is imperative that you be responsive to the comments of all parties; in cases where conflicting feedback is received, it may be necessary to convene a meeting of the parties to achieve consensus on the point in question. You should expect a brief to go through one to two revisions before acceptance – further iterations are usually only necessary when Scholars repeatedly fail to respond to required changes, and we do not expect that from CEED Scholars.

Final Project Brief

Once your have incorporated the required changes, recirculate your Project Brief to the Academic Supervisor(s), Client Mentor(s) and the Program Director again, for review. Ensure you list the revisions you made into the email for full transparency.

> **!** Do not circulate a final copy for signature until you have agreement from all parties (either verbal or written consent) that the document is acceptable. This will only lead to issues if a party requires changes to a document that has already been signed by others. Noting that the final signature should always be the Program Director.

What if I want to update my Project Brief, after it has been executed?

Scholars sometimes discover, after the Project Brief is signed off, that it would be desirable to change something significantly from what has been agreed (e.g. Deliverable). If this happens it is the student’s responsibility to write an Addendum, and seek agreement and signature by their Client Mentor(s), Academic Supervisor(s) and Program Director. This avoids painful disagreements and disputes later on.

Congratulations on getting your Project Brief fully executed!

Once the CEED Director signs your Project Brief, the CEED Office circulates a copy to the project team. The CEED Office will also initiate your first Studentship, assuming your Monthly Report submissions are up to date. You will also be given your CEED Polo! You're welcome to wear the polo out/to work, however, we kindly ask you wear the polo to all CEED recruitment events.

8. Communication

Importance of Communication

The success of your project hinges on your ability to ensure that proper input is obtained from all parties. You are effectively the coordinator of your project (even though you are under supervision) so the final responsibility rests with you.

Communication is the key to full participation and input into your project. Without proper communication, the best plans and ideas in the world will go nowhere. It is vital that you recognise this and take active steps to ensure proper communication takes place.

Communication may take many forms, depending on the nature of the message to be conveyed; from formal, such as writing a letter, through to email, face-to-face, and phone call, as appropriate for the given situation and/or material.

Your CEED project involves four parties, yourself, your Academic Supervisor, your Client Mentor, and the Program Director/CEED Office. It is important that all be kept adequately informed.

Effective Communication

There are steps you can take to minimise the risk of miscommunication/misunderstanding:

- **Keep in regular contact with all parties**
  This does not mean that all parties need to attend every meeting. At times, some people can just be kept up to date with progress and decisions. At other times they may need to be closely involved. You must decide what level is appropriate, and when. Do not neglect this and just hope for the best. Make conscious decisions in consultation with your Academic Supervisor and Client Mentor. If in doubt, ask the person how closely they want to be involved.

- **Put all agreements in writing**
  When an agreement is made, yourself or the parties are in accord, may be tempted to treat a verbal agreement as sufficient. Do not fall into this trap!
    - Firstly, putting decisions in writing makes all parties check much more carefully that they understand what is agreed. Many misunderstandings are avoided as a result.
    - Secondly, memories fade with time and become hard to recall. Perceptions, pressures and priorities change. Even with goodwill on all sides, disagreements can arise. Deliberately or unconsciously, people's recollections adjust to accommodate their current perceptions. A written document (even an email) allows the facts to be established later. If goodwill has been stretched a bit thin, written documents become even more important.

- **Keep all parties well informed at all times.**
  If in doubt whether or not a person needs some information, err on the safe side by sending it. The risk in sending too much information is that the recipients may not read it. Help them by indicating what you require of them. For example, state whether it is "for

information only", or "requires action".

Communication with the Client

The CEED Client may want you to write a long report or provide a presentation at the end of your site work period. Check with your Client Mentor about this – it is an opportunity to build your network and reputation at the organisation. If you submit such a report/presentation, provide your Academic Supervisor with a copy for information, preferably in time to allow feed-back before submission.

Communication with the CEED Office

The CEED Office is responsible for arranging CEED projects, and monitoring progress to ensure your needs are being met. If you have any concerns, please inform the CEED Office as early as possible, before problems arise. You can also document these issues in your Monthly Reports.

The CEED Office will arrange scholar meetings, gatherings and activities requiring CEED Scholars to volunteer. Thus, communication channels need to be kept open. Communications will be sent via email or via the exclusive CEED Scholar WhatsApp group. Please check these channels regularly, and respond promptly! If your contact information changes, please ensure you inform the CEED Office.

Monthly Reports (Written Progress Reports)

Communication in the corporate and public sectors is vital, and each organisation will have its own mechanisms. Regular reports are an important part of this. You may be viewed as unsuccessful if you do not meet expectations in reporting.

As part of your project obligations, you are required to submit a Monthly Report throughout all phases of the project, to your Academic Supervisor, Client Mentor and the CEED Office.

These reports are due on the first day of the new month via email.

You can download the template on our website (https://ceed.wa.edu.au/current-scholars/project-materials-for-scholars/)

The CEED Director reads these reports to monitor scholars progress, and will implement additional support if required. The Director will also return comments/feedback if it is felt Scholars need to improve on their reports.

Requirements for Submitting Reports -

- Administratively -
  - Reports should be submitted as a word file, as often small adjustments are needed for printing
  - Do not alter the template in anyway (including font and margins)
- Scholars are expected to submit their Monthly Reports on the first day of the new month.

    - If reports are not submitted by day 7, the report will be reviewed the following month regardless when it is submitted.
    - Failure to comply with the deadline will result in a meeting with the Program Coordinator on the first instance. Further lateness in subsequent months will result in a meeting with the CEED Director.
- Scholars are expected to report expenses on the Monthly Report WHEN THEY ARE INCURRED (see 'Project Expenses' for more information)
    - Failure to report expenses on the monthly report will result in a meeting with the Program Coordinator on the first instance. Discrepancies in subsequent months will result in a meeting with the CEED Director.
- Delays in submission will also effect studentship payments until the required meeting has taken place.

Addressing each section -

Project Progress this Month
• Began researching quotes for C *(what quotes, why are they required?)* • Shared initial results of testing D with team *(we don't need to see the actual results, just a summary)* • Circulated draft or final project brief *(summarise the updates required)* • Continued writing code *(summarize the elements of the code that have been written)* • Worked on literature review *(include descriptions of specific topics that were pursued,what steps/modules will be added? or identify key papers that set out important mythologies)* • Researched E *(include what the entailed. Did you review a particular technique? Review the client history? reviewed existing project data?)* • Collected F data *(summarise what data was collected. Where did it come from?)*

Issues Affecting Progress
• Difficulty with achieving A *(why?)* • Machine malfunctioned and had to wait for technician assistance/repair *(what was the time frame? what did you do to while the repairs were taking place?)* • Supplier/postage issues/delays *(what happened/what were the issues?)* • NOTE; ○ Don't include 'supervisor/mentor on leave' as a contingency plan should be in place. If staff are unresponsive, include your steps taken to resolve the issue ○ We also don't need the full details on the personal reasons that slowed progress, but we need to know if the issues can be resolved or whether there is something that you will have to manage going forward.

Project Meetings This Month
• 01/01/23 – Sally Burke and William Lane - Discussed A • 08/01/23 – Sally Burke and William Lane - Discussed B • 12/01/23 – Sally Burke, William Lane and Fiona Ghoul - Discussed C • NOTE; Lack of meetings is a concern. Was it due to your own commitments, or your project team? There needs to be a clear explanation here.

Expected Progress Next Month
• Project brief revision/approval *(what are your steps to implement changes?)* • Further testing of A *(what steps need to be taken?)* • Confirm/validate results of B *(what are your steps? what are you expecting?)* • Continue writing code *(summarise the expected code elements that need to be written)* • Investigate C *(define the definite action)* • Further research D *(what specific specifics topics will be addressed? how will they be addressed?)* • NOTE; it's ok to be light, but it needs to be clear what is going to be done. Things are also more likely to happen if they are clearly planned – it doesn't mean you can't adjust as you go.

Issues that may Affect Progress Next Month
• Delays with finance approvals/acquiring of software *(what are your steps to alleviate further issues?)* • IT issues or Testing problems *(explain what particular issues are of concern)* • Further supplier/postage issues *(due to what reason? what are your contingencies?)* • NOTE; Don't include 'public holidays, exams/assignments are due' as a contingency plan should be in place for these busy periods.

Expenses Incurred this Month	Total Expenses Incurred To-Date
All expenses must be pre-approved before purchasing	
Provide the sum of all materials, workshops, technician hours, etc for that month	Provide an accumulative sum of all expenses made thus far in the project

Itemized List of Expenses Incurred This Month

- Have no expenses? leave the below table blank - do not remove it.

- Have expenses? Use the table provided when itemizing your list of project expenses. All materials, subscriptions, workshop and technician staff costings should be included, regardless if the technician time or equipment usage was free that month

Date:	Expense Detail:	Amount:	Paid By:	Approval and Receipts attached

- Attachments - do not insert copies of invoices/receipts/statements in this box. Attach them at the end of the document.

Monthly Report - Form Example

CEED WA

CEED Project Monthly Report

Monthly Reports are due on the first day of the new month. Please include the following recipients via email:
- Academic Supervisor(s)
- Client Mentor(s)
- CEED Office (ceed@uwa.edu.au)

Month and Year	*the month you are reporting/summarising*
Project No. & Title:	
Client	
Student Name	

Project Progress This Month
•

Issues Affecting Progress
•

Project Meetings This Month
•

Expected Progress Next Month
•

Issues That May Affect Progress Next Month
•

Expenses Incurred This Month	**Total Expenses Incurred To-Date**
$	$

Itemised List Of Expenses Incurred This Month

Project Expense Table

Date:	Expense Detail:	Amount:	Paid By:	Approval and receipts attached Y/N

(Attach APPROVED receipts at the end of this document)

Signed	**Date**

OFFICE USE ONLY – Notes

9. Student (University) Assessments

Assessment for Scholar's Research Units

Scholars are to enrol in their respective research unit before commencing their CEED project. For example;

Undergraduate / Bachelors	Postgraduate / Masters by Coursework
Bachelor of Philosophy (Honours) • First Semester: GENG5011 • Second Semester: GENG5012	Master of Professional Engineering • First Semester: GENG5511 • Second Semester: GENG5512
Bachelor of Engineering (Honours) • First Semester: GENG4411 • Second Semester: GENG4412	Master of Data Science • First Semester: CITS5014 • Second Semester: CITS5015

Assessment methods for student projects vary between schools within the university, however CEED Scholars are still required to submit all of the assessments of the research project units that you are enrolled in. CEED projects are assessed using the same rubrics as their student counterparts, and neither the Client nor the CEED Office is directly involved in academic assessment or any other academic matter.

!

Due to the confidential nature of CEED projects, assessments for their associated research unit must not be submitted via LMS.

Instead, they should be emailed to **ceedfyp-ecm@uwa.edu.au**

When sending assessments to this email address, you are welcome to attach a 'Delivery Receipt' so you have a copy when you submitted the assessment, and a 'read receipt' so you know when the email has been opened.

This account is monitored by the CEED office and Teaching Operations Team Leaders in the School's of Engineering and Computer Science. Once an assessment is received, it is forwarded on to the Academic Supervisors and third party markers (assigned by the course coordinator) for marking.

CEED will email all Scholars at the start of the semester, outlining the research unit's assessments and where they should be submitted. If in doubt, contact the CEED Office for clarification.

School Presentations

Most scholars will need to provide a school seminar presentation for assessment purposes. As these presentations are assessed, it is important that you are able to present all the material you have been working on, up until the day of the presentation – without cutting off early to go through approval processes. Scholars will therefore present in confidential sessions (know as 'closed' sessions), with only your Academic Supervisor and marker present (Mentors are welcome, but not required).

In some instances, your Academic Supervisor will instruct you to organise the session that is both mutually convenient for themselves and the marker (your Academic Supervisor will inform you of an appropriate marker). If your Academic Supervisor has organised a session that includes multiple students, the other students must leave before you commence your presentation regardless if they are a CEED student. Once a marker has been organised, please inform the CEED office as the marker will need to acknowledge our non-disclosure agreements before attending your presentation.

Extensions

If an assessment extension is required, scholars are required to follow normal university protocol and provide documentation to the university's student office, detailing the reason why an extension is required. Scholars should inform the CEED office ASAP if an extension has been granted for their research units. It is important to note, that even though this option exists, it is not recommended. Scholars are expected to keep on top of their responsibilities, and should have been able to forward plan/stay organised with competing deadlines.

Unit Failure

In the event a scholar has failed a research unit, the CEED office will contact the Client (Mentor and Senior Contact) and Academic Supervisor to discuss the matter. A decision for either termination or extension of your CEED Project will need to be reached, in line with university policy and CEED's Standard Project Agreement.

- Scholars that are granted an extension will need to re-enrol in that particular research unit, and submit the required assessments again.
- Terminated CEED projects will result in the student having to re-enrol in ALL research units again and will not be considered for another CEED project (they will only have the option to choose a project listed by their school).

Professional Practicum

If your degree has a requirement for a Professional Practicum, your CEED project will give you credit.

A CEED project is deemed to cover;

- Full CEED Projects - Category 1 (Professional Placement) will meet 12 weeks or 450 hours of Professional Practicum requirements
- 3/4 CEED projects - Category 3 (Related work) will meet 4 weeks or 150 hours of Professional Practicum requirements

In most cases, you will be required to submit practicum reports at the conclusion of the research units. If your school requires written confirmation of any practicum, make sure it clearly states that you are doing a CEED project.

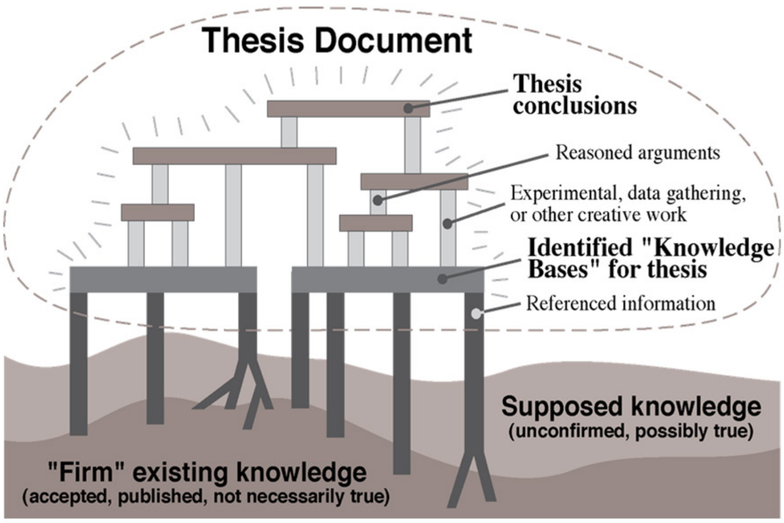
Perfecting your Thesis

In most schools, project work is assessed predominantly on the thesis document. Requirements for theses at different levels vary, therefore you should check what is required for your level and program.

Your thesis typically needs to demonstrate the full extent of your academic skills, particularly your ability to:

- Find, review and assess critically relevant past work by others in your discipline
- Design and conduct experimental or other creative work to test or develop some hypothesis
- Analyse critically the results, draw careful conclusions, identify and recommend further work
- Write and present a coherent and comprehensive report on the work

Essentially, your thesis is to prove your ability to find and handle knowledge reliably, accurately, and intelligibly. This implies that you can support every statement and conclusion from the accepted knowledge base of your main and relevant allied disciplines. The diagram below may help you understand what is entailed.



Identifying the knowledge bases for your work

Identifying the current knowledge bases for your thesis is the objective of the literature review. You need to link all your work back to published literature (rather than to "supposed fact" which may just be hearsay). Published material may still be wrong or out of context, so you must review literature "critically", showing yourself watchful for flaws (e.g.. loose reasoning, or information used out of context). Knowledge which is unconfirmed (if you must mention it at all) should be supported as far as possible from firm knowledge. If any uncertainty remains, be sure to say so to show you are aware of it.

A thesis is a polished and self-contained document that stands apart from its links to accepted knowledge – but any research project is only as solid as its foundation. Make sure you provide a broad base of knowledge to ensure a solid foundation.

Building on the knowledge base

Once you have outlined the knowledge base or bases supporting your work, your aim is to build on that knowledge in some way. This will generally require creative work to gain extra data, and some careful reasoning. From these, you can develop the next "levels of conclusion". Your thesis may contain one or several levels of conclusion, but each must be reasoned from previous knowledge, with or without new data.

Structuring your thesis

The structure of your thesis document is a vital part of your work. Breaking down the segments of your work appropriately has an immense effect on how you develop your arguments, and deserves considerable attention before you start writing. Poor structure will lead to “fuzzy” boundaries when discussing points, and is frustrating to writer and reader alike. If you ever find it difficult to write a particular section, make sure it is not due to a poor thesis structure. It is a very common cause of de-motivation when trying to write!

As you write your thesis, aim to lead your reader through the document. It is often helpful to show the context or relevance of each section as you enter it, and indicate what should logically be discussed next as you finish a section. This principle holds true for the total thesis (i.e. Introduction and Conclusions), for each chapter, and often for major sub- sections. Any extra information or reasoning which is not an essential part of your main argument, but is still relevant, can be included in appendices and simply referred to in your main text. Be careful when relegating material to an appendix – it’s difficult (and annoying) for the reader when material that should be in the main text is banished to the appendices.

Polishing your thesis document

Your thesis is a polished document, and largely self-contained apart from the references which support it from the public literature.

Remember, the purpose of your thesis document is give a good impression to the reader in both content and presentation. You will therefore need to check it several times for its factual material (including your skill in developing logical arguments), its editorial quality (spelling, grammar, etc.) and its presentation (layout, quality of diagrams, etc.). Getting somebody else to read through it can also be very helpful. High quality takes time; always allow plenty of time to achieve it.

Identifying further work

There is always more work to be done, whether to develop ideas further, or to confirm tentative conclusions reached in your thesis. In identifying these, you demonstrate that you can see your work in the context of developing the knowledge further. For a CEED project, it will also help the CEED Client identify ways to develop from and extend your work.

Approach to referencing

References tie your work into existing knowledge. They also provide leads for later researchers to explore the subject further. It is therefore important that references be linked appropriately and carefully into your text. There are many approaches to handling references, some more suitable than others, so choose carefully. Check with your Academic Supervisor(s) to find out if your school has a preferred system.

Some helpful notes are available from the library website, at Study support (uwa.edu.au).

Although popular among journals (where space is at a premium), the numbering system is not always best for a thesis because it gives no immediate indication of the chronology and author of works to which you refer. One popular alternative is the APA (or "name-year") system which takes up more space in the text, but gives the reader useful extra information. It can be handled in several ways, offering some variety in your text. For example: "An early study (Smith and Bloggs, 1987, p. 96) showed that references in theses were useful. In two later surveys of students, Jones (1994a, p. 3; 1994b, pp. 426-28) found that nearly half preferred to omit references since it avoided recording so many names." You may then list the references alphabetically in the reference section of your thesis (which also avoids the need to re-number references and citations every time you edit your thesis….)

Harness the experience of others

There is a large pool of experience available to you. Your Academic Supervisor(s) can help you make decisions on the structure of your thesis document. Discuss your ideas and concerns as soon as they arise.

Take advice also on timing to make sure you are leaving sufficient time to complete the necessary tasks. They usually take longer than you think!

Your Academic Supervisor(s) has considerable experience with theses. Harness it. As early as possible, give your Academic Supervisor(s) a fully edited "final draft" of one or two thesis chapters so that you can easily implement any resulting suggestions in the remainder of your thesis.

It is sometimes helpful to look at examples of theses from past years, but remember two important points: (a) they are not perfect, and (b) there is more than one way to present a good thesis. Do not feel bound to imitate previous theses. They may have been regarded as good despite some faults, such as being too long.

Mentor approval of thesis

Your thesis might contain information of a sensitive nature with respect to your CEED Client. It is therefore required that Scholars send their thesis for marking to ceedfyp-ecm@uwa.edu.au. Your thesis does not need to be pre-approved by your Client Mentor, as all third party markers (academics within the same discipline at UWA) will acknowledge our non-discloser agreement before commencing.

If you have any concerns at all about these matters, discuss them with your Academic Supervisor or the CEED Office. Do not leave it to the last minute. They can become extremely disruptive at a time when you do not need any extra distractions!

10. CEED Project Requirements

Key CEED obligations are completed by scholars in addition to their research unit obligations – but they are not assessed by the university.

- Monthly Reports
- Project Brief
- Client Presentation(s)
- CEED Seminar Presentation
- CEED Seminar Proceedings
- Participation in CEED events and preparations
- Deliverables

Note; Monthly Reports are discussed under 'Chapter 8: Communication', while Project Briefs are discussed in 'Chapter 7: Project Brief'.

CEED Project Extensions

Scholars are strongly advised to complete their CEED obligations within their designated time frames. Should a Scholar request an extension for their Project Brief or Deliverables, a discussion with all stakeholders will be required to reach a decision for either termination or extension, that is in line with CEED's Standard Project Agreement. It is important to note, that even though this option exists, it is not advised to use it. Scholars are expected to keep on top of their responsibilities, and should have been able to forward plan/stay organised with competing deadlines as per their Gantt Chart in their Project Brief.

Note; termination of the project will affect studentship entitlements.

Client Presentations

It is normal for CEED Scholars to deliver one or more presentations to colleagues at the Client's organisation. These presentations help the scholars develop as professionals, and expose them to valuable feedback (especially early in the project). They also represent an invaluable opportunity for CEED Scholars to develop their network within the organisation. If required, your client will discuss these opportunities with you directly.

CEED Seminar

The Annual CEED seminar takes place in mid-September each year (exact date will not be formalised until the Semester 2 timetable is released). The purpose of this seminar is to market the CEED program by demonstrating what can be achieved with CEED projects, foster contacts, and generate further ideas for research projects through CEED. It is also an advantageous opportunity to showcase yourself professionally, as some delegates use the event to scout scholars for employment opportunities.

Invited guests include members of the University/Research community, industry partners, and CEED alumni. Naturally, all those who supervised the project will be invited along with any other professional contacts you wish to invite. As this is a professional event, friends and family should not be included in your guest list. The seminar will also be followed by a networking session, which is a wonderful opportunity for you to build connections and grow your network portfolio.

Seminar Scheduling

- The CEED office will host a series of mandatory seminar meetings:
  - A preliminary planning meeting will be held in late July, to discuss processes and committees. All due dates will be made available at this meeting (noting that due dates are subject to approval/editing required by the client). Dinner will be provided.
  - A Seminar Rehearsal evening will be scheduled one week before the Seminar. Scholars will practice presenting and offer feedback to their peers. Dinner will be provided.
  - Committee meetings are scheduled throughout the lead up to the Seminar during business hours, for specific seminar planning activities (schedules will be provided at the Preliminary Meeting in July).
  - Scholars will need to be available from 1pm - 10pm on the day of the Seminar. Formal seminar schedules (timings and duties) will be circulated in early September.

Committees

At the Preliminary Planning Meeting, scholars can choose a committee (first come basis). Once chosen, scholars are required to make themselves available for associated tasks/committees.

- Editorial Committee
  - Team: 4 Scholars and CEED Director
  - Duties: provides feedback on seminar proceedings (papers) and Chairs (manages/time keeps) their assigned seminar rooms. One scholar will also have the opportunity to act as Master of Ceremonies for the welcome and networking events, while another will provide the 'Thank You' speech on behalf of all scholars.
- AV Committee
  - Team: 4 scholars and CEED Director
  - Duties: manages AV requirements for their assigned seminar room (will also need to volunteer the use of their own laptop).
- Events Committee
  - Team: remaining scholars and Program Coordinator
  - Duties: preparing seminar materials, setting up seminar rooms, registration, and ushering.
- All scholars are required to assist as necessary, including cleaning up after the event.

!

Approvals

Papers and presentations must be cleared for publication by the Client. No paper will be published, nor will a presentation occur, unless the CEED office have the written authorisation from the client (acquired via a designated 'Authority to Publish' form found on our website).

From our experience, there is often a formal procedure within some organisations, which can be quite convoluted. We advise you to expect the process to take 2-3 weeks.

With the paper and presentation being publicly available, they may need to be neutralised or in some cases, sensitive material will have to be omitted. Your project team can guide you on potentially sensitive material, so that it doesn't unnecessarily lengthen the approval process.

Seminar Proceedings (Paper)
Each scholar prepares a paper for the Seminar Proceedings. These proceedings are distributed to all delegates at registration, and uploaded on the CEED website.

When preparing your paper, you will need to consider the following;

- A high standard of presentation and content is expected
- Written seminar papers should aim to inform intelligent people who already have some knowledge of your topic, and should typically be modeled on conference papers for your particular discipline. Expect your paper to be widely distributed to your CEED Client's personnel. High quality diagrams enhance your presentation, but be aware of the space they take and the visual limitations they yield printed in black and white.
- A standard word format is used for all papers. You will be able to download a template file with the necessary formats from the CEED website. You are required to use this template for your paper.
- **NO deviation from the template format will be permitted (e.g. font and margins).**
- Your paper should be 6 pages long. This is a hard limit – longer papers will be rejected.

Seminar Presentation
On the day of the seminar, each CEED Scholar will perform tasks as per their selected committee (as chosen during the Preliminary Planning Meeting) and give a presentation to a wide audience. Scholars are expected to dress in formal business attire. If you do not own this type of clothing, you're encouraged to source/borrow from family or friends, before purchasing items from the store/Op Shops. Of course if your future employment requires business attire, it may be time to update your wardrobe.

There is no standard template for the presentation, as some clients may prefer that you use their template. University templates are available to students, however if you choose to use a template (e.g. The University or Client's) you must adhere completely to the specified visual identity. The CEED office will hold a rehearsal the week before the seminar to ensure your presentation is compatible with the room's laptop. It is your responsibility to ensure all text, animations and images are showing correctly.

Presentation timings:
A chair will be assigned to each room to ensure presentations adhere to a strict schedule (this will allow delegates to switch rooms/see other presentations as they see fit)

- Full Presentations (new year starters of current year and mid-year starters of previous year). Each scholar will have a 20 minute time slot (15 minutes for presentation and 5 minutes for questions).
- Short Presentations (mid year starters of current year)
  Each scholar will have a 10 minute time slot (5-6 minutes of presentation with 4-5 minutes for questions).

The purpose of your presentation is to inform others about your project work, and to demonstrate how it is valuable (this is an essential part of "real life" practice). Your talk should be aimed at intelligent people with no knowledge of your discipline or topic. This means you need to spend some time on the background to your project, and adjust the technical depth of your talk to make it accessible to your audience. This is a requirement for any presentation – they must always be tailored for your expected audience. Make your talk an interesting and enjoyable experience for your audience. If you do this, it will have much greater impact and convey more information than one that is only significant technically.

Remember the following key points;

Delivery

- When delivering your presentation, ensure your voice carries well throughout the room, striking a balance between clarity and volume without resorting to unnecessary loudness.
- Practice your speech to refine your pacing; nerves often lead to speaking too quickly, while lack of preparation can result in a hesitant, slow delivery.
- To maintain fluidity and professionalism, be mindful of filler words such as "um", "er", "you know", or "like", which can distract from your message. Use professional language and avoid slang or acronyms.
- Establish and maintain eye contact with your audience to foster engagement and connection; avoid turning your back or relying too heavily on notes.
- Utilize gestures to enhance your message and emphasize key points, preventing yourself from appearing static or disengaged.
- While repetition can reinforce key concepts, strive for concise articulation to avoid unnecessary redundancy.
- Confidence stems from thorough preparation; dedicate ample time to crafting your slides, preparing speaking notes, and rehearsing your delivery.

Slide Preparation

- Ensure text and images on slides are large enough to be read from a distance, considering the perspective of those seated in the back of the room.
- Choose colour schemes and backgrounds that enhance readability and clarity; opt for high-contrast combinations like dark text on light backgrounds or vice versa.
- Pay meticulous attention to spelling and grammar; errors can detract from the professionalism and credibility of your presentation.
- Clearly label all graphs and images, providing sufficient context for viewers who may review your slides independently.
- Use language that is accessible to your audience, avoiding overly technical jargon that may alienate or confuse listeners.
- Tailor the content and complexity of your presentation to match the knowledge level and interests of your audience.
- Emphasize important terms and key points prominently on slides to reinforce their significance to your overall message.
- Minimize distractions caused by excessive use of effects or animations in presentation software, ensuring smooth and efficient delivery.
- Maintain accuracy and precision in all technical content presented, demonstrating your expertise and attention to detail.

11. Networking

The project you are undertaking is yours, but you cannot accomplish it alone. Your achievements to date have been assisted by a mutually supportive network of family, friends, business associates, and lecturers. Overall, you contribute to others just as much as you receive (or more), but contributions will not be balanced for each person. This is normal, so don't be afraid to ask other people for help.

Extending your Network

Your network should be important to you, so learn how to use it. As you work on your project, you will need to extend, and to make use of your supportive network. You have probably been doing this unconsciously in the past, but you will be much more effective if you do it deliberately.

As you continually meeting new people, they are potentially new members of your network, as you are of theirs. Use the opportunity to discover where they could fit in, and how you might be of help to them - either through your own knowledge or by putting them in contact with people you know.

Handy Hint: when you meet new people at work, or even socially, be prepared to write down their names and how you can contact them again. Equally, be willing to supply information for them to contact you. This does not need to infringe on your privacy or theirs. If you or they have concerns, simply ask for (or give) a means of contacting at work (you could give your university school's address). Most professionals are happy to exchange this information.

Making Better Use of Your Network

The key to benefiting from your network is letting people know you are seeking help on a particular matter. This approach removes fear of rejection. Students in general have been reluctant to ask questions for fear of appearing ignorant, especially once their project has been under way for a while. Don't be afraid to let your questions be known. Most people are glad to help others if they can, as it gives them satisfaction.

12. Agreements

When you accept your CEED project, you enter part of an agreement between the university, the CEED Client and yourself to perform a specific piece of work. You are not engaged as a consultant with particular expertise, but as a student with the project, as a co-operative research venture, incorporated in your regular program of study. You are not employed by the university, nor by the CEED Client (excluding Scholars undertaking a CEED 'Employee Project Model' project), even though both are committing time and resources to your project.

It is a requirement under CEED's 'Standard Project Agreement' that all CEED Scholars are to sign a formal acceptance for their CEED project, known as a 'Student Undertaking'. Some CEED Clients may also require students to enter into another agreement before starting work. If so, it is likely to be their standard document – but may, in some way, duplicate or contradict your Student Undertaking. Do not sign any such document without first bringing it to the attention of the CEED Office. The UWA legal team may need to confirm that it is acceptable for you to sign the agreement.

All contractual issues are handled by the CEED Office, not the Academic Supervisor or Client.

Confidentiality

The CEED Student Undertaking includes standard provisions for confidentiality, so you will already have confirmed that you will comply with confidentiality requirements. Some CEED Clients may require all parties involved in a project (including you) to sign their own standard confidentiality agreement. This is common in industry, particularly where competition for new information is a major factor. Once again, do not sign any such document without first bringing it to the CEED Office. In many cases, the University will need to be a signatory to the agreement, and you can only sign such an agreement once it has been cleared by the University and the CEED office.

Intellectual Property (IP)

While ownership of Intellectual Property produced by joint research (such as CEED projects) is generally shared 50/50 between the university and CEED Clients, the CEED program offers an option whereby Clients may pay a fee surcharge to obtain full ownership of IP produced by the project. In such cases, the normal CEED payments to students are increased to compensate for the concession. Ownership of "Background IP" is unaffected by the surcharge. Projects are advertised according to their IP ownership, however if you have any concerns, contact the CEED Office.

Publications

Should any publications result from a CEED project, they are treated as joint publications by the various contributing individuals unless agreed otherwise. Publications will only be released with the approval of the Client.

13. Insurance and Safety

Safety is a vital concern, and all parties have a duty to ensure projects are conducted safely. Scholars generally have little experience of industrial safety and insurance, so you will need additional oversight. We do expect that you will undertake all the usual inductions required for access and working at your Client's premises.

Insurance

The university provides professional indemnity for CEED Scholars while working on their projects, including periods when visiting and carrying out project work on site. The University's Student Placement Insurance also covers you during your time on site, however, this precludes any periods you are in employment with the CEED client. These insurances provide cover for yourself and the Client for any accidents on site, however it does not cover damage caused as a result of foolish or criminal acts.

Employment Periods

If CEED Scholars enter into a separate employment arrangement with the CEED client, they naturally become employees of that organisation and workers' compensation insurance requirements apply for time spent working under that [paid] arrangement.

Should a scholar make any employment arrangements with the CEED client, please ensure the dates are clearly stated in writing so that liability for insurance is absolutely unambiguous. This is the Scholar's responsibility. Any disagreement between insurance companies tends to be extremely inconvenient for those concerned.

Safety Onsite

Your safety is of paramount importance. Treat it that way. Your CEED Client may have a work safety program requiring you to attend training on safety matters. Check with your Client Mentor, who will then make any necessary arrangements. Industrial sites often contain unforeseen dangers so, if in any doubt, ask. Never be ashamed to ask.

14. Arrangements for Site Work

For students undertaking full projects, the CEED Client has made arrangements for you to work on your project either at their premises or on campus (depending on the needs of the project). This period provides an excellent opportunity to gain experience operating as a significant contributor in a normal working environment. Make the best of this opportunity. Interact with people and look for opportunities to develop your network for their benefit and yours.

Your academic performance on your CEED project may be assessed on the basis that you used the site work period effectively, so do not allow your efforts to be diverted from your project.

Site Work Period

CEED Scholars may need to negotiate dates with the CEED Client for your mutual convenience, taking into account shutdown and leave arrangements. Typically this period takes place during the summer vacation, but arrangements can be made for the mid-year vacation period. Under no circumstances should site time be made up during the academic semester. Client Mentors are instructed to inform the CEED office if Scholars have not fulfilled their site work obligation.

While the 8 week full-time vacation period is standard, in many instances CEED Clients have found it useful to extend the scholars' access to continue through the academic semester. Scholars are expected to spend 1.25 to 1.5 days a week working on their project during the semester, and maintaining access to site may help you to focus on the project, maintain connection to the team, learn the culture and operations of the work place, and may even be essential for context and accessing resources that are necessary for the research.

Sometimes Client's may also offer an opportunity for scholars to gain additional experience which is useful even though it is not directly relevant to the project. Provided such opportunities do not interrupt project work for more than a total of 10-20% of the site work period, you are welcome to take the opportunity since broadening experience is a major outcome of the CEED program.

Extended Site Period

If you wish to work on site for longer than the set period, you will need to negotiate this separately with your Client Mentor. They are under no obligation to allow a longer period, nor to offer additional remuneration for any extra period.

If you do accept paid employment in addition to your CEED engagement, any such arrangement is between you and the CEED Client. Please make sure there is a written record of the dates for any additional paid employment as there are insurance ramifications (see Chapter 13: Insurance and Safety on site).

15. Project Expenses

CEED Program Fees

For funded projects, the Client pays a project fee to the CEED program that covers CEED's overheads, the studentship and the usual access to University resources afforded to students undertaking research projects. These are invoiced in two installments;

- 50% when the scholar is appointed
- 50% upon acceptance of the deliverables by the client

Responsibility

You are required to take responsibility for the financial management of your project, under the oversight and guidance of your Academic Supervisor and Client Mentor. This includes:

- Obtaining quotes and seeking written approval from the Client Mentor, Academic Supervisor and CEED Director via the 'Authorisation to Incur Expenses' form - prior to any expenditure.
- Keeping accurate and detailed records throughout the project (e.g. who paid for the item, what was the purchase for, regularly following up on technician hours, keeping copies of invoices/receipts)
- Updating the Project Team, and CEED Director/CEED Office of incurred expenses via Monthly Reports
- Consolidating the information and paperwork for end of project processing (invoicing CEED Client and reimbursing supervisors).

Minor Project Expenses

The project fee includes a small sum ($200 excl GST) for which scholars can recover expenses incurred in the preparation of deliverables and other minor project expenses without generating excessive paperwork. This may include printing costs or a hard drive, but is not intended for transport costs.

Claims need to be submitted by the scholars to the CEED Office, verified by their Supervisor, giving account of the expenditure.

Travel Expenses

Under the Standard Project Agreement, the following travel expenses may be covered by:

1. Supervisor;
   - 6.2.e - Expenses pertaining to travel undertaken in respect to the CEED Project by the academic supervisor to sites within a 50 km radius of UWA.

2. Client;
   - 6.3.c - travel to sites outside a 50km radius of UWA undertaken in respect to the

CEED project

- 2.1.2 & 6.3.d - Travel, accommodation and sustenance allowances for full time onsite vacation work where the site is outside the metropolitan area of Perth

3 Scholar;

- 2.1.7 - personal accommodation and travel expenses when required to work at sites for the CEED Project that are outside a 50km radius of UWA.

Agreement in writing shall be prepared in advanced of incurring any such expenses. When travel is required, it it typically organised by the Client internally;

- For travel to remote sites, it has been universal for clients to book and incur expenses through their usual in-house facilities and arrangements
- For travel by car, it is usual for scholars to use the organisation's vehicles, or travel with their mentors (as travel reimbursement rates for personal car use can be quite expensive, it's not recommended).

General Project Expenses

Client's occasionally have a good idea of the direction needed to complete the project, including what resources and materials are needed. They will therefore often include 'pre-allocated expenses' into the Project Agreement for your project. This may include funds that they will be covered in-house by the Client, or have funds reserved for the university to incur and be reimbursed later.

Alternatively, during the initial stages of developing your Project Brief, your Client and/or Supervisor may wish to include experiments or recommend purchasing materials, software, etc. Be sure to add these expenses into your Project Brief and follow the below procedure to acquire the necessary approvals.

Please note; your 'budget' is listed as 'expenses' in Agreements/Purchase Orders. The expense amounts are a general estimate of possible expenses the client MAY incur. It's not an approval from the client, allowing the scholar to do as they please with the funds. The CEED project fee are also not included/cannot be accessed, as this covers the programs overheads, wages, etc.

Expense Process

Expenses will not be reimbursed if proper protocol is not followed. You are encouraged to use the CEED expenses excel template to help keep track of your financial information.

Prior Approval of Expenses –

1 Obtain quotes and estimates from all likely expenditures (including materials, workshop and technician fees)

- If you cannot get a formal quote, have the technician email an estimate to you (or you could email the technician after your meeting with them and say 'this is what we discussed…. can you confirm this is accurate?')
- Do not wait for actual amounts, nor should you wait to find out how much to estimate for subsequent expenses (e.g. I don't know how many days the technician will work, because its reliant on X. Don't wait - just estimate! You can update later).

2 Complete an 'Authorisation to Incur' form BEFORE payments/charges are made

- Remember that it doesn't have to be exact, as it's not an actual expense – it's an estimate. It's better to be over in an estimate, then under (but of course, staying within budget)
- Attach your formal/unofficial quotes and any print screens/links of online prices

3 Email the completed 'Authorisation to Incur Expense' form to your Client Mentor, Supervisor and CEED Director and seek their signatures. The CEED Director should always be last signature obtained.

- Supervisors will not be reimbursed for retrospective payments, therefore it's vital to get prior approval.
- If the costs are to be managed in-house by the client, then this step is not required. Just make note of it in your Project Brief AND Monthly Reports.

Payment of Expenses –

4 Once you receive approval, you may then purchase items or have the technicians carrying out the work

- Its not advised that scholars use their own funds for reimbursement - use your supervisor's BU/PG account.
- Track all approved expenses as well as all incurred expenses (e.g. in excel) and keep digital/original copies of all invoices, receipts and/or statements.
- Keep your supervisor informed of charges, as they will incur the costs and may not be reimbursed if the project goes over budget and/or expenses are not approved
- Follow up with technicians regularly, so there are no surprises (e.g. 10 hours was originally quoted, but they didn't tell you until after the work was carried out that it was actually 50 hours). This happens frequently, so be vigilant!
- This helps with reconciliation AND keeping within budget.

5 If more expenses (e.g. materials/technician fees) are required, then re-start the process

- Do not assume that because prior approvals were given for X amount, but costs were under, that you do not need another approval (the approval is for the item, quantity AND dollar amount, not just dollar amount)

Reconciliation –

6 Each month, update your monthly report with your actual incurred expenses

- Include the dollar amount that was incurred that month, and the dollar amount that was incurred to date (of ALL expenses made throughout the project)
- Use the expense table to identify what the expenses are for, how many technician or workshop hours used, who incurred the expense, etc.
- Include comments, for example: 'X was listed on the authorisation form, but it was later decided it wasn't needed, and therefore the expense was not incurred' or 'Y was approved for $$, but it only cost $', etc.
- Attach all relevant expense documents (receipts, invoices or statements). We need to prove to the client that a legitimate expense was made. If there is no receipt/itemized statement, we cannot claim it.

7 At the end of the project, collate and email the CEED Office all the relevant expense information and documentation in a clear and concise manner. Do not expect the CEED Office to decipher messy or incomplete records. It will be returned to you so you can fix the issue. Noting that studentship payments are contingent on all scholar responsibilities been met.

The CEED Office

- *CEED will monitor your monthly reports to and check ongoing expenses against approvals*
- *At the end of the project, CEED will assess your expenses for accuracy only. It is not the Administrator's responsibility to collate the information or seek documentation from third parties.*
- *Once the reporting of expenses have been deemed completed, CEED will then organise the final invoice to the client. This includes the second half of the project fee and all expenses that were pre-approved throughout the project.*
- *Once the invoice is organised, CEED will reimburse the supervisor.*

Reimbursement –

8 All reimbursements are carried out electronically via Concur, using your supervisors BU/PG account information. Instructions on how to access Concur and process reimbursements are on LMS.

Authorisation to Incur Project Expenses - Form Example

CEED WA

Authorisation to Incur Project Expenses

Project Number	
Project Title	
Client	
CEED Scholar	
Supervisor BU/PG	

Purpose of Expenditure	
Estimated Expenditure	
Quotation/ Estimate Source	
Attachments	*[All Quotes/Estimates comprising the estimated expenditure must be attached to this form]*

Authorisations

	Name	Signature	Date
Mentor			
Supervisor			
ONLY SEND TO CEED ONCE ALL OTHER APPROVAL SIGNATURES HAVE BEEN SECURED			
CEED Director			

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16. Studentship

CEED Scholars on funded projects (Full, 3/4 or PhD) receive a Tax-Free Studentship for their project. If your project has 100% IP ownership with the Client, you will also receive a 35% increase in Studentship payments. The studentship is funded from the project fee paid by the Client. Scholars will be paid their studentships via electronic funds transfer in multiple installments.

Failure to fulfill your obligations outlined in your Student Undertaking (also outlined in this manual) could lead to loss of, or even require repayment of, your Studentship.

"Full" Projects

Masters by Coursework and Honours level students - includes vacation work

There are four equal installments of $2,500 with shared IP (totalling $10,000), or $3.375 with 100% client owned IP (totalling $13,500):

1 **Upon Acceptance of the Project Brief**
- Mentor, Supervisor and CEED Director have all signed the Project Brief
- On condition that Monthly Reports are up to date

2 **Upon Having a Satisfactory Midway Progress Meeting with the CEED Director**
- Meeting to take place before the Summer/Winter break
- Payment will be made during the first week of the second semester of the project
- On condition that Monthly Reports are up to date, and CEED have received a fully executed Project Brief

3 **Upon Satisfactory Completion of the CEED Seminar**
- Participation in CEED Seminar planning meetings, committee meetings/tasks, provision of a paper approved for publication by the client, and delivery of a presentation
- On condition that Monthly Reports are up to date, and CEED have received a fully executed Project Brief

For mid-year starts -
Midpoint of the Second Semester of the Project
- Payments to be organised in the middle of the second semester
- On condition that Monthly Reports are up to date, and CEED have received a fully executed Project Brief

4 **Upon Acceptance of the Deliverables Agreed in the Executed Project Brief**
- 'Confirmation of Deliverables Form' has been signed by the Client Mentor
- On condition that Monthly Reports are up to date, CEED Office has recieved a Client/ CEED approved Seminar Paper, Copy of deliverables and data, Completed Student Completion Report returned, Expenses are finalised/complete as per CEED's expense process.

"3/4" Projects

Masters by Coursework and Honours level students - does not include vacation work

There are three equal installments of $2,500 with shared IP (totaling $7,500), or $3,375 with 100% client owned IP (totalling $10,125):

1 **Upon Acceptance of the Project Brief**
- Mentor, Supervisor and CEED Director have all signed the Project Brief
- On condition that Monthly Reports are up to date

2 **Upon Satisfactory Completion of the CEED Seminar**
- Participation in CEED Seminar planning meetings, committee meetings/tasks, provision of a paper approved for publication by the client, and delivery of a presentation
- On condition that Monthly Reports are up to date, and CEED have received a fully executed Project Brief

For mid-year starts -
Midpoint of the Second Semester of the Project
- Payments to be organised in the middle of the second semester
- On condition that Monthly Reports are up to date, and CEED have received a fully executed Project Brief

3 **Upon Acceptance of the Deliverables Agreed in the Executed Project Brief**
- 'Confirmation of Deliverables Form' has been signed by the Client Mentor
- On condition that Monthly Reports are up to date, copy of deliverables and data have been shared with CEED, completed Student Completion Report returned, Expenses are finalised/complete as per CEED's expense process

HDR Projects

Masters by Research or PhD level students - does not include vacation work

There are three equal installments of $4,000 with shared IP (totaling $12,000), or $5,400 with 100% client owned IP (totalling $16,200):

1 **Upon Acceptance of the Project Brief**
- Mentor, Supervisor and CEED Director have signed the Project Brief
- On condition that Monthly Reports are up to date

2 **Upon Completion of Two-Thirds of the Agreed Project Term**
- Meeting with CEED Director to take place to before payment is organised
- Payment will be made during the first week of the second semester of the project
- On condition that Monthly Reports are up to date, and CEED have received a fully executed Project Brief

3 **Upon acceptance of the deliverables agreed in the Executed Project Brief**

- 'Confirmation of Deliverables Form' has been signed by the Client Mentor
- On condition that Monthly Reports are up to date, copy of deliverables and data have been shared with CEED, completed Student Completion Report returned, Expenses are finalised/complete as per CEED's expense process

AND

Upon satisfactory completion of the CEED Seminar

- Participation in CEED Seminar planning meetings, committee meetings/tasks, provision of a paper approved for publication by the client, and delivery of a presentation

Setting up an Electronic Funds Transfer Account

UWA Scholars

1. Complete the UWA electronic EFT form that was emailed in your CEED Offer Letter
    - Vendor Name is the Name on your Bank Account
    - ABN is not required (leave bank)
    - Electronic signatures are accepted, electronic ‘stamp signature blocks’ are not.

2. Download a Bank Account Confirmation Document, with the same account details listed on the EFT form. Its preferable to not use your Bank Statement. You may also redact any financial sums.

3. Email CEED your documents for processing.

Curtin Scholars

1. Complete the EFT form online via Curtin's Student Portal.

- Please note; there may be some delays in studentship payments as the CEED office is situated in UWA and does not have access to Curtin's financial systems, nor can we make direct requests to their finance department. As such, when you meet your project milestones, CEED will inform our Curtin colleagues to arrange payment on our behalf.

Employee Model Projects

There are instances where organisations wish to engage students who have an existing working relationship, scholarship or cadetship with the organisation. The ‘Employee Project Model’ will be utilized in these instances. It is required that the employment arrangement will pay you a minimum of $7,500 (equivalent to a 3/4 project studentship) for the work performed in the organisation, for the duration of the project. Therefore, no additional studentship will be provided by the CEED Office.

Earning Other Income During Your Project

CEED Client -

CEED scholars are not required to accept any employment arrangements with the CEED client. If an agreement is made however, please ensure the dates and times you work as an employee

AND as a CEED scholar are clearly stated in writing with the company. It is your responsibility to organise such arrangements and alert the CEED office of any agreements made. Please read the 'Insurance and Safety' chapter of this manual for further legal/liability implications.

Company -
You may seek other employment while undertaking a CEED Project as long as it allows you to fulfill your CEED obligations. It is not recommended to work more than 10 hour a week, however this is at your own discretion to organise your time wisely. Receiving renumeration will not affect your eligibility for the CEED Studentship.

Government Allowances -
Your CEED Studentship is classified as income for the purposes of establishing your Youth Allowance and Austudy entitlement. If your total "other" income (including your tax free CEED Studentship) for any year exceeds limits allowed by the Federal Government, your allowance may be reduced. Despite this, you will still be better off with the CEED Studentship. This is for your information only, and it remains your responsibility to ensure you comply with all requirements for your allowance and taxation liabilities. The rules are regularly updated, so you should check with the appropriate government websites:

- Youth Allowance for students and Australian Apprentices - Services Australia
- Austudy - Services Australia

17. Project Close Out

Is critical to maintain your professional working relationships with clients and colleagues by closing out projects in a professional manner. Failing to do so can leave a poor impression, which will adversely affect your chances of working with that organization or colleague in the future. Closing out a project competently will leave a good impression, enhancing your standing. The effect can be profound, particularly since the way you close a project will be the last impression that you leave with people. The CEED project close out process also strongly influences the prospects of Clients sponsoring future projects, and directly affects the reputation of the University. The process of closing out a CEED project should be straightforward, merely requiring scholars to display the discipline to take the final steps.

The CEED Office will send the following Close-Out emails when the project is nearing completion;

- Scholars - reminding you of the process, including personalised forms that require completing and signing
- Supervisors - reminding them of the impending conclusion of your project
- Mentors - advising them of the upcoming steps, including when to expect and how to accept your deliverables (attached Deliverables form).

CEED's Close Out Meeting

The CEED office will organise a meeting between the Scholar and CEED Director, when you are approaching the end of your second semester. The purpose of this meeting is for the Director to gauge your progress on the project, and implement any further strategies that will enable you to succeed and wrap up on time.

It is not a requirement that Scholar's prepare anything for this meeting, however some students have found it helpful to bring a PowerPoint presentation to ensure they cover all talking points.

Project Team Close Out Meeting

The scholar needs to organise a final project meeting with their Supervisor and Mentor. The main purpose of this meeting is to discuss the results of the project and finalise the Deliverables (future close-out meetings may be required if any outstanding work is required). This meeting also provides an opportunity for all members to identify areas where the execution of the project might have been improved, and propose directions for future work.

This meeting should be conducted within four weeks of submitting your thesis. If outlined in the Project Brief, confirm with your client when they require you to present your deliverables to the organisation. It is also your responsibility to return any equipment or access cards to your Client upon the completion of the project.

Be sure to take this opportunity to thank your Client and Academic Supervisor, and let them know where you'll be headed in the future - you never know, they may have a reason to contact you to offer opportunities down the track!

Deliverables

Deliverables will have been defined in the Project Brief (and any subsequent amendments to the Brief).

Deliverables are due 4 weeks after the scholar submits their final thesis for assessment.

Deliverables and subsequent data that relates to the Deliverables are required to be sent to the Client, as well as the CEED Office regardless if the Client owns 100% of the IP. If a deliverable has not been provided to the CEED Office, provide an appropriate explanation. If a Deliverable was changed since the Project Brief was executed, then a Project Brief Amendment must be signed by the Client.

The preferred method of submitting Deliverables

- To the Client: The Deliverables represent your lasting legacy at the client organisation, and readers and users will form their impression of you based on what they see. Therefore you should take the time and present the deliverables in a professional manner. You may also use the $200 minor expense allocation to purchase an external hard-drive to facilitate the transfer.

- To the CEED Office: Deliverables should be sent via your student OneDrive account (not your personal account). When sharing, please give the Program Coordinator's UWA email (kimberlie.hancock@uwa.edu.au) permission to access, as OneDrive accounts are linked to Staff numbers, which CEED does not have. Alternatively, you may visit the CEED office in person and copy it over via USB.

Once the Deliverables are considered complete and satisfactory by the Client Mentor, they will need to sign a CEED Deliverables form stating that the Deliverables have been received and accepted. When this acknowledgment is received by the CEED Office, the final invoice will be issued (pending expense documentation).

If your Deliverables have not been submitted by this deadline, the CEED Office will organise another close-out meeting with the CEED Director to ensure the project is properly managed. The CEED Office may also make arrangements with the relevant faculty to have your grades withheld. This will obviously affect your graduation or future enrolment in the University.

Other Close-Out Requirements

Scholars are also required to complete/submit the following in order to receive their final studentship payment (and supervisors to receive their final payment as well).

1. Project Expenses - finalise all your project expenses as per the process listed under 'Chapter 15: Project Expenses' of this manual. Failing to consolidate your records in a clear/professional manner will delay your studentship. It's not the responsibility of the CEED Office to seek the information from multiple sources and decipher the purchases/approvals.

2. Monthly Reports - Monthly Reports are required to be submitted to the CEED Office until the completion of your project - this is until you submit your FINAL deliverables to the client/CEED. If your Deliverables are returned for updating, then you will need to submit another report outlining the additional work.

3. Student Completion Report - this form is a formality to ensure everything is completed and there are no outstanding issues that need addressing.

4. Student Questionnaire - although it is not mandatory, it is incredibly helpful to complete our feedback form. It helps us to gauge the Scholar experience, so we can improve the program for the future.

Completion

Congratulations on completing your CEED Project!

You will now receive your final studentship payment, and be placed on CEED's Alumni database. We won't bother you, but we will notify you of upcoming CEED Seminar events. You will also receive an CEED Alumni Mug and a Certificate to help you commiserate your time with us.

We wish you the very best in your future endeavors, and we hope to see you again soon.

Sincerely,

Kimberlie and Jeremy