

CEEDWA

Co-operative Education for Enterprise Development

Project Manual for Client Mentors

This manual is produced for the use of Client Mentors supporting projects under the Co-operative Education for Enterprise Development (CEED) program at the University of Western Australia. Separate manuals are produced for CEED Scholars and the Academic Supervisors of CEED projects

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1. Executive Summary

- This alerts you to the main issues you will need to deal with in handling your CEED project.

Introduction

CEED projects are joint research projects that connect the resources and expertise of your organisation with the research facilities and expertise of the University of Western Australia (UWA). The principal aims of the CEED program are:

- to create opportunities for our CEED Scholars to undertake real projects of immediate business value to the Client – accelerating their development as professionals and future graduate employees.
- to deliver results and deliverables that are useful to your organisation – it is essential that CEED projects deliver value to their sponsors.
- to offer projects that meet and (partially) fulfil the academic requirements of the units and degree being undertaken by the CEED Scholar.

Structure of CEED projects

CEED projects are based on conventional academic research project units, such as Final Year projects (in Engineering degrees), Honours projects, or Masters (coursework) thesis projects. At an early stage, the CEED Scholars work with you and their Academic Supervisor to agree on the “Project Brief”, which will define the objectives and deliverables to be achieved by the project, and the mechanisms for managing the progress of the project. In most CEED projects, the scholar will spend a period of time working on their project at the Client’s premises.

Pitfalls to Note

Poorly defined, inappropriate, or changing targets can severely limit the effectiveness of projects. Certain project stages need to be carefully managed by the project team (Mentor, Academic Supervisor, and CEED Scholar) to avoid prolonged “flat spots”, most notably the period where the scholar resumes academic studies after a period of site work.

Communication problems invariably inhibit project performance. Communication lines between the participants need to be continuously maintained.

Mentors are encouraged to contact the CEED Office early with any concerns regarding the progress of the project.

Project Supervision

The Academic Supervisor holds the main responsibility for academic oversight of the project. As Client Mentor, you will be the CEED Scholar’s main connection to your organisation, and represent the interests of your organisation in the project. Your enthusiasm and participation will go a long way to determining the success

of the project. The CEED Office is also available to provide guidance to all parties to the project.

Student Assessment

Under University rules, University staff must be responsible for student assessment, but you are encouraged to pass on your views to the Academic Supervisor. The Academic Supervisor may include that input in the Supervisor's Report that they submit for the reference of the academics marking the Scholar's report.

Communication

We emphasize the importance of communications in the training of our scholars. Please encourage them by insisting on a high standard of reporting. Regular (monthly) written progress reports are required from the scholars, and it is usual for scholars to deliver presentations at your premises. Please contact the CEED Office early if you have any concerns or personnel changes that may affect communication lines.

Getting Started

Proper planning early in the project is vital. Early goals for students starting their project are identified, together with a checklist of important matters to clear up with you.

Defining project outcomes

The project's *outcomes* are the benefits which your organisation wishes to derive as a result of the CEED project's successful completion. Clear project outcomes need to be identified, and all parties must be satisfied that they meet academic criteria as well as your organisation's needs. In some cases, the Academic Supervisor may need to discuss with you extra outcomes to meet the academic requirements of the units or degree being completed by the student.

The Project Brief

The "Project Brief" is produced by the Student in consultation with you, the academic Supervisor and the CEED office. Once agreed, it is signed by all four parties. It defines project deliverables, how they are to be achieved, who will arrange for required resources, procedures for clearing publications/presentations for public release, and other important issues.

CEED Project Presentations

Students make several presentations during the course of their CEED project. One of the most important will be at the CEED seminar, to which you (and anyone from your organisation that you would like to include) will be invited.

Project Expenses

The Client is responsible for all project expenditures (apart from those already included in the project fee) – site travel and experimental expenses are the most

common expenditures. Expenses may be incurred directly by the Client, or through the University – all University expenditures can only be incurred with the prior written approval of the Client (which your CEED Scholar is responsible for securing from you). Your organisation will be invoiced for any additional expenses at the end of the project.

Studentship

CEED Scholars receive a studentship that is covered by the project fee (for funded projects – there is no studentship for pro bono projects).

Site work

CEED Scholars undertaking full projects spend 8 weeks working full time on their project at your premises during the University vacation periods. During that time, a small percentage their time may be devoted for other experiences that enhance their development or understanding of your organisation – but the project should be their primary focus. During the academic semester, Scholars are based primarily on campus, though some will need access to your premises to continue their project work. Even if they do not need to be at your premises, it can be beneficial for them to retain access to your premises to maintain connection with your team and organisation.

Insurance and Safety

Insurance provisions are outlined in the CEED Standard Project Agreement (and/or any specific agreement that has been arranged to cover the project). Briefly, your organisation and the university indemnify each other against various situations, and the university also provides scholars with student placement cover. If you provide additional employment for the CEED Scholars for any period during the project, please agree in writing (in advance) about the dates to avoid later disputes about insurance.

CEED Scholars need to receive training in on site safety; otherwise their lack of experience could lead to dangerous situations. It is expected that CEED Scholars will undertake the usual inductions required for your sites.

Agreements

CEED projects are typically carried out under a CEED Standard Project Agreement, which is available at www.ceed.wa.edu.au (though specific agreements have been arranged for some organisations). It outlines the responsibilities of the parties, and the options for handling intellectual property. The default arrangement is ownership of IP in equal shares by the university and CEED Partner, though CEED Clients may opt for 100% ownership of project intellectual property (attracting increased project fees). Any change in the preferred option must be finalised within 30 days of the CEED Scholar being appointed.

2. Introduction

- **Your CEED project should benefit all parties involved.**
- **Please read the Executive Summary before starting your project.**

Welcome to the CEED Program! We trust you will find mentoring your CEED project a stimulating and fruitful experience. Your role is crucial for the success of the project, because your guidance and direction will enable the efforts of the project team (CEED Scholar(s), Academic Supervisors and yourself) to achieve maximum value for your organisation.

This manual is designed to assist you as Mentor, and outlines the main features of CEED projects. The executive summary identifies issues that we have found to be important. As specific needs arise, you can find out more about them in the remainder of the manual.

The CEED Program is self-funding, and was set up at UWA in 1989 to develop productive, working relationships between the university and organisations like yours. It provides a formal framework to link the project work of senior undergraduate and postgraduate students with your research and recruiting needs.

CEED offers access to all UWA schools for single school or multi-disciplinary projects, and aims to provide you with outcomes of immediate business value. When handled effectively, CEED projects can achieve very significant results for your organisation and greatly enhance the development of our CEED Scholars.

Purpose of CEED projects

CEED Clients often have multiple reasons for undertaking projects. Reasons include:

- improve performance and profitability through progress on the project topic;
- gain access to University equipment and expertise for specific needs;
- start training potential employees before they complete their studies;
- increase the pool of people with experience and expertise in areas important to you;
- improve links with the University for future research and interaction.

CEED Scholars pursue the project as part of their academic study. CEED projects give them the opportunity to:

- gain professional experience in parallel with their studies, enhancing their attractiveness to future employers;
- work on a problem of immediate concern to the wider community;
- receive a Studentship to assist financially through their studies;

- extend the period of and resources available for their project, increasing the prospects of useful achievement and making it less vulnerable to delays.

The University gains from CEED projects because they:

- increase contact and build relationships with organisations interested in research;
- enhance training by providing CEED Scholars with professional experience;
- broaden the knowledge and contacts of Academic Supervisors;
- facilitate projects with broader scope and cross-discipline activity;
- give rapid feedback on training from employers;

Requirements of CEED projects

Each CEED project must be tailored to satisfy the needs of your organisation and the CEED Scholars:

- you desire progress on your project topic;
- CEED Scholars need to demonstrate their academic capabilities.

To achieve both goals, clear objectives must be defined.

The roles of the "team" members for your project are well defined:

1. **CEED Scholars work in a formal research situation**
CEED Scholars carry out their project as part of their academic study, but they are also conducting research for the CEED Partner and must meet their administrative needs, e.g. reporting during and at the end of the project.
2. **Academic staff undertake academic supervision**
Academic Supervisors remain responsible for supervising the academic outcomes of the project, though the Mentor will also have considerable influence on the work.
3. **Client Mentors provide guidance and extra input**
The Mentor steers and facilitates the project to ensure it meets the CEED Partner's objectives, helping guide the CEED Scholars, and linking them into the CEED Partner organisation.
4. **CEED Office monitors and supports project progress**
The CEED Office maintains contact with all parties to ensure they are happy with project progress, their working relationships, and the overall operating structure.

3. Structure of CEED Projects

- **CEED projects are carefully structured to ensure the needs of all parties are met. All components are important.**
- **Final Year Engineering and Honours projects have firm guidelines on timing.**

For Final Year Engineering and Honours projects, full CEED projects extend over as long as 14 months. Under the “full” project model, students work on-site for 8 weeks during University vacation periods (usually during the summer vacation, though some of this time may be allocated to the mid-year vacation). Under the “three-quarter” project model, the student may not formally work on-site (though it would be unusual for the student to not at least visit the client’s site), and may in fact spend the summer vacation working for a different organisation.

For Final Year Engineering and Honours projects, the most desirable time for students to work on site is during the summer break either before the first semester of the project (for students starting at the end of the year), or between the first and second semesters (for students starting in the middle of the year). The timetable for Final Year Engineering and Honours projects is provided in Table 1 below.

Projects Starting at the End of the Year				
Mar-Sep	Sep-Nov	Dec-Feb	Mar - June	July-Nov
Project Definition and Initiation	Student Interviews and Appointment	CEED Scholar On-site (Full project); CEED Scholar on Vacation work (3/4 project)	First semester of Project	Second Semester of Project
Projects Starting in the Middle of the Year				
Oct - Mar	Mar - June	June - Nov	Dec-Feb	Mar-June
Project Definition and Initiation	Student Interviews and Appointment	First semester of Project	CEED Scholar On-site (Full project); CEED Scholar on Vacation work (3/4 project)	Second Semester of Project

Table 1 Scheduling of Final Year Engineering and Honours projects.

Stages of Final Year Engineering and Honours CEED projects

Start-up stage

Requirements for the first project weeks are outlined under “Getting Started”. CEED Scholars need one or more meetings with you and their Supervisors to agree on the *Project Brief* (defining project outcomes and logistical matters), and to prepare for the site work period to ensure it is effective.

Site work period

CEED Scholars work on their projects at your premises for a pre-determined period of time during their project, depending on the project model being used. For standard projects, the CEED Scholar spends 8 weeks on-site; for “three quarter projects”, this period is agreed between the parties (and the CEED Scholar may even spend no time on site).

The CEED Scholars are not your employees during this period, so university insurance arrangements apply. Longer site periods, and split periods, are permitted where mutually acceptable. Further information on this is given under “Arrangements for Site Work”.

Academic year (2 semesters)

CEED Scholars continue their CEED project throughout the academic year. Time available varies with different courses of study, but about 10-12 hours per week may be regarded as typical. The latter part of the final semester is occupied with writing up theses and any special project reports. You will receive copies of the thesis and other deliverables as agreed in the Project Brief.

4. Pitfalls to Note

- **CEED projects place scholars in a number of new situations – this is a great experience for them, but they will require some guidance.**
- **While some potential problems are obvious, some are not, so please take careful note of the points below.**

While CEED Scholars participate in our induction program at the start of their projects, experience has shown that there are some common pitfalls. If not avoided, they reduce the usefulness of the project and burden both the CEED Scholars and the Client Mentors.

Project "flat spots"

Experience has revealed two potential "flat spots" during CEED projects during which CEED Scholars can potentially lose direction. These are:

1) When scholars start on site

Without clearly defined objectives and methods of accomplishing them when starting on site, some scholars can be slow to get going in the unfamiliar working environment. Beware! Some will struggle silently, not wishing to burden you with their inexperience. When they start on site, please make sure your CEED Scholars have clear goals defined (i.e. Project Brief), know what is expected and where to obtain resources, and have regular meetings with you to discuss progress.

2) When scholars return to campus

After working full time on site, some CEED Scholars struggle to re-adjust to balancing the demands of multiple units with the need to continue making steady progress on their CEED project. Sometimes, having made progress on their project over the summer, there is a *strong temptation to put their project aside "for a short period"* until they get back into their study routine. Delays then grow as study pressures continue, until the prospect of catching up on their project work becomes increasingly daunting. Please try to ensure your CEED Scholars have some easily attained short-term goals to maintain momentum during this critical period – this can be achieved by taking care in the development of the Project Brief. Maintaining regular meetings with the Scholar during this time will also help keep the momentum going.

Informal changes in project direction

Priorities within organisations can change quite rapidly. With CEED, this can lead to subtle (or even strong) pressure on scholars to adopt revised lines of investigation which threaten the usefulness of the work already done. Revised outcomes need not be a problem, but informal or progressive modification can

unsettle scholars and drastically affect their motivation and performance. All changes to project deliverables should be formally agreed, and documented by modifying and re-signing the Project Brief.

Vague outcomes

Vaguely defined project outcomes can cause disappointment for you and others in your organisation and frustrate scholars, leaving them uncertain about what you require. Please discuss thoroughly with scholars and Supervisors the points outlined in the section on “Starting up”, as these help avoid many pitfalls in handling CEED projects.

Poor communication

Irregular or poor communication is probably the most common cause of dissatisfaction in project management. Good communication can be endangered if your CEED Scholars are intimidated by your seniority and experience. Please *insist on CEED Scholars reporting regularly to you*, even if they have little progress to report. It is also important to have regular meetings of the full project team (yourself, the scholar and the Academic Supervisor) to make sure everyone is on the same page. These meetings should occur at least monthly.

Ignored changes in performance

CEED Scholars are selected for CEED projects because you and the Supervisors believe they can do a good job, while profiting from the experience themselves. Similarly, Academic Supervisors are selected by the CEED Office for their knowledge, competence, and experience. Despite this, situations occasionally arise which result in disappointing performance. Such situations may be unpredictable, but they are often observable through subtle changes in a scholar’s attitude or performance.

As Mentor, you are well placed to detect such changes. If you perceive deteriorating performance or motivation at any time, please alert the Supervisor or CEED Office immediately. CEED Scholars are not penalised if intervention is required – rather, it is an opportunity to identify issues and provide support. Early warning usually allows simple a remedy, so please help us ensure your CEED project is productive by alerting us quickly to any concerning developments.

5. Project Supervision

- **CEED projects require significant input and guidance from the CEED Mentor.**
- **You effectively act as a co-supervisor, representing the client's interest in the project and connecting the CEED Scholar to your organisation.**

While CEED projects are undertaken for academic credit (and the development of the CEED Scholar), they are focused on an identified need of the CEED Client and it is expected that they should deliver value to your organisation.

They receive input from the CEED Client in the form of funding, resources, and additional guidance from the Client Mentor – your role as facilitator vital to the success of the project.

Academic Supervisor

Academic Supervisors are responsible for the academic oversight and assessment of CEED Scholars' work, and will contribute their expertise to the project team.

During the academic semester, CEED Scholars should meet regularly with their Academic Supervisors – weekly to fortnightly is ideal. Ideally, they should remain connected to the project even when the scholars are working at your premises during the vacation period – this can be accomplished through meetings of the full project team during that period (2-4 over the 8 week period is ideal, subject to the leave commitments of the Supervisor and Mentor).

Regular meetings of the full project team (Scholar, Supervisor and Mentor) should continue throughout the semester to make sure everyone is on the same page – fortnightly to monthly being the ideal frequency. If these meetings are not being scheduled, you should check in with your CEED Scholar to remind them to make the arrangements.

Mentor

Your role as Mentor is crucial to the success of your CEED project. Your scholars will learn much about your organisation from you, and their level of enthusiasm and motivation will be greatly influenced by yours (just as we tell the CEED Scholars at induction that their enthusiasm will influence the rest of the team's energy levels).

You are the main contact within your organisation for CEED Scholars and Academic Supervisors, and you contribute to the project in many ways. Some of the more important ones are:

- helping define project objectives and deliverables, and linking the project with other activities in your organisation;

- arranging for your organisation's resources to be available when needed, and facilitating scholars' access to your premises and systems;
- arranging for scholars to receive help in areas of your organisation's expertise, whether or not you are the main source;
- encouraging and guiding scholars as they learn to cope with unfamiliar material, methods of work, and working environment;
- reporting semi-formally on CEED Scholar and CEED project performance. A brief (confidential) project assessment form will be sent to you by the CEED Office at the end of the project. These reports provide essential feedback for the ongoing evolution and improvement of the CEED program;

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

CEED Client "Senior Contact"

The CEED Office has listed for your project a "Senior Contact" within your organisation, as well as yourself as Mentor. Generally, this person was involved at the inception of your project, but has subsequently handed over its guidance to you. If you require the CEED Scholars to maintain contact with this person on any matters concerning the project, please ensure this is set out in the Project Brief.

Deputy Mentor

Please nominate a Deputy Mentor as soon as possible in case you become unavailable at any time during the project (eg. leave, deployment to site, sickness, etc.). It is desirable, but not essential, that this person be familiar with the project and its objectives, and able to provide some basic guidance should you be absent for any period. This arrangement has nothing to do with seniority, and the "senior contact" sometimes takes on the Deputy Mentor role.

6. Student Assessment

- **Academic assessment of CEED projects is the responsibility of university schools.**
- **As Mentor, you may be invited to contribute your observations to this assessment.**
- **Your feedback to the CEED Office on all matters is welcome at all times.**

Assessment methods for student projects vary between university schools. CEED Scholars are required all of the submission and presentation requirements of the research project units that they are enrolled in. Their key CEED obligations (Project Brief, presentation, monthly reports, and deliverables) are completed in addition to their unit obligations – but are not assessed.

With astute planning, the Project Brief, presentation and deliverables in particular should contribute to and enhance unit submissions. In most projects there is significant overlap.

CEED projects are generally assessed using the same rubrics as their regular equivalents, and neither the Client nor the CEED Office is directly involved in academic assessment or any other academic matter.

As Mentor, you may be asked by the Academic Supervisor to contribute your informal assessment of your scholar's performance, particularly in terms of attitude and initiative. This assessment may be included in the Supervisor's reports to the thesis examiners, which can influence the student's final marks.

7. Communication

- **You can help students by setting, demonstrating, and demanding high standards of communication and presentation of information.**

In their manual, CEED Scholars are reminded that the success of their project hinges on people, and the students' ability to obtain input from all parties. Communication is therefore critical and, as Mentor, you are well placed to help your CEED Scholars with this.

CEED Scholar communication

Scholars are advised to take all steps to minimise the risk of misunderstanding. Their manual gives further details, but the main points are:

- ✓ Keep in regular contact with all parties:
- ✓ Take notes at all meetings and give copies to those who attended;
- ✓ Put all agreements in writing;
- ✓ Keep all parties well informed at all times.

Please encourage your CEED Scholars to do this. It not only teaches them good habits, but will greatly reduce the risk of miscommunication and make your role easier.

Monthly written progress reports

CEED Scholars are required to present a brief status report at least monthly (throughout all phases of the project, including site work) to you, their Supervisor, and the CEED Office. They have been given a template (as shown on the next page).

They are not expected to provide a report detailing their results each month – rather they are to provide a status report describing the progress during the month, the progress expected in the next month, and any issues affecting progress. They must also include details of any expenses incurred during the month, to help all members of the team and the CEED Office monitor spending.

The CEED Director monitors these reports, and gives CEED Scholars feedback if it is felt they need to improve. As Mentor, you should feel free to provide CEED Scholars feedback if the reports are not providing the information you need.

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 become major.

Changes of Mentor or other contacts

If there are any changes to personnel acting as Mentors, deputies, or other contacts in your organisation, please inform the CEED Office, preferably giving revised phone, fax and email.



Expenses This Month	
Urgent Issues	

CEED Project Monthly Report	Insert Month
Project No & Title:	21/
Client	Insert Text
Student	Insert name

Project progress this month
Enter Text

Issues affecting progress
Enter Text

Expected progress next month
Enter Text

Issues that may affect progress next month
Enter Text

Expenses incurred this month
\$

Total expenses incurred during the project to date
\$

8. Getting Started

- **Careful planning is needed to ensure students optimize the use of their time on site.**
- **Initial meetings between you, Students and Supervisors are vital for defining the project direction.**
- **The initial weeks of the project culminate in the preparation of the Project Brief.**

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 CEED Scholar and Supervisor to determine and define the key features of the project.

You will be able to discuss and clarify what can be achieved with your project, and you can explain what is desired. The scholars will be seeking to:

- define the existing situation as it affects your project,
- define the final situation you desire at the end of the project,
- define the issue to be handled and its boundaries,

We encourage scholars to keep a record of all ideas considered because they may become significant later. Factors "eliminated" can still play a role in defining the project, even though they may not be directly related.

Key targets for scholars during the first project weeks are to:

- develop a Project Brief which includes your reasons for requesting the project, objectives, methodology, milestones, constraints, resources and deliverables – the first draft of this brief should be submitted to all stakeholders (yourself, the Academic Supervisor, and the CEED Director) for review 8-10 weeks after the start of the project;
- identify and address topics which may require extra study;
- arrange with you and their Supervisors for the necessary resources to be sourced and/or made available.

Before starting on site (unless the project is starting late), scholars generally should have:

- (ideally) participated in CEED induction – for projects where CEED Scholars are appointed late in the recruiting cycle, this may occur after the start of the site period;
- accumulated some reference material;
- started developing new skills need for the project.

The Project Brief is sought after 8-10 weeks to allow all members of the project team to get a feel for the project before confirming the direction and deliverables. It is important that the Brief be completed in a timely manner - the longer it is delayed, the greater the likelihood of problems later.

Check list for the initial team meeting

Scholars are given a list of example questions to ask at your first formal meeting to ensure a number of important issues are not overlooked. Please encourage them to go through the list thoroughly so they can gain confidence in dealing with you. For your information, the matters that specifically need to be raised are:

- what do you, as Mentor, (and other key players within your organisation) see to be the project's main outcomes – 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?

Note: Outcomes may be adjusted as the project progresses, provided it is done in writing and signed by you, the Academic Supervisor, CEED Director and the Scholar. Please note, in some projects it may be necessary to insert additional objectives to meet the academic expectations of the unit – though this has proven rare in recent years. The vast majority of projects are more than challenging enough to meet out academic requirements.

- 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 (eg. 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 (eg. labs and equipment) do you hope UWA 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 (eg. 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?

Extra information you may like to get from Academic Supervisors

- identify the expertise the Supervisors (and academic colleagues) can and cannot contribute;
- identify alternative sources of expertise at UWA if necessary;

9. The Project Brief

- **Firm project outcomes and deliverables must be identified and all parties satisfied that they meet academic criteria and your organisation's needs.**
- **The Project Brief is vital to ensure all parties agree on what is to be done, how it is to be approached, and how team members are to interact.**

Establishing clear outcomes for CEED projects is essential. 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. The project outcomes and Deliverables form an important part of the Project Brief).

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).

Most project topics naturally contain ample demands for academic excellence; but some may not. In such cases, supervisors may need to suggest additional material to meet academic requirements. CEED Scholars and supervisors are encouraged by the CEED Office to draft several options so you (as Mentor) can select or tailor one to provide maximum benefit to your organisation.

The *Project Brief* is where project outcomes (among other things) are documented. This Brief should be prepared in the first 8-10 weeks of the project, and ideally should be signed by all parties (after feedback and modification to the satisfaction of all stakeholders) within 10-12 weeks of the start of the project.

The "Project Brief" defines the Scholars' projects, the desired list of outcomes and how they plan to handle it. The Brief also describes your organisation's current situation as it relates to the project, what you want delivered to you at the end of the project, and identifies interfaces with other parties, especially those who supply approvals, resources, finance, or other important information.

The key to developing the Project Brief is one or more face-to-face discussions between you, the CEED Scholars and their Supervisors. A visit to site is also helpful. CEED Scholars are given detailed instructions on how to go about writing up the Project Brief in their manual. A Project Brief template is available at the CEED website ([Project Materials for Scholars – CEEDWA](#))

Should requirements change significantly during the course of the project, the Project Brief needs to be modified and re-signed by all parties. This can be done via an amendment letter.

10. CEED Project Presentations

- **It is usual for CEED Scholars to deliver one or more presentations at your organization**
- **Most research project units require a presentation be given for assessment.**
- **All CEED Scholars will give a presentation at the CEED Seminar held in September.**

On-site presentations

It is normal for CEED Scholars to deliver one or more presentations to colleagues at your organisation. These presentations help the scholars develop as professionals, and expose them to valuable feedback (especially early in the presentation). They also represent an invaluable opportunity for CEED Scholars to develop their network within your organisation.

CEED Seminar

The CEED seminar takes place in mid-September each year. Invited guests include members of the University and Business community, and CEED alumni. Naturally, you will be invited, along with any colleagues who have supported the project, and any other guests that you would like to invite.

Each scholar prepares a 6 page paper for the Seminar Proceedings. This proceedings are published, so the papers must be cleared for publication by your organisation. From our experience, there is often a formal procedure within the organisation, which can be quite convoluted. We advise our scholars to expect the process to take 2-3 weeks. Your scholar will need your assistance to document the process in the Project Brief.

With the paper being publicly available, we understand that aspects of the information in the papers may need to be neutralised – or in some cases, sensitive material will have to be omitted. Again, the scholars will need your guidance on potentially sensitive material, so they can unnecessarily lengthening the approval process. No paper will be published unless we have the written authorisation of the client.

On the day of the seminar, each CEED Scholar will give a presentation (15 minutes plus 5 minutes for questions; shorter for CEED Scholars who start at mid-year). These presentations too will have to be cleared by your organisation for public release.

You will be invited specifically to this seminar during your project. Where timing

permits, you may also receive an invitation to the event for the preceding year's CEED Scholars because it will help you determine what to expect from your project.

The purpose of this seminar is to demonstrate what can be achieved with CEED projects, foster better contacts, and generate further ideas for research projects through CEED. The seminar will be followed by a networking session to allow you to mingle with our University, Industry and Alumni guests.

School Seminar

Most scholars will need to provide a school seminar presentation for assessment purposes. As these presentations are assessed, it is important that CEED Scholars are able to present all the material they have been working on, and work on the presentation until the day of the event – without cutting off early to go through the approval process.

To that end, CEED Scholars are required to present in confidential sessions, with only their supervisor and markers are available. You are welcome to attend the session with your colleagues should you choose, though it is not required.

11. Project Expenses

- **CEED projects may have significant financial transactions, so CEED Scholars must learn proper handling of paperwork.**
- **Certain approaches minimise workload and risk. Methods shown below are useful if your project will incur additional expenditure.**

Funding of CEED projects

CEED projects are joint research projects with contributions from all parties. Your organisation has agreed to pay the additional expenses for your CEED project, provided approval is obtained by the scholar or university *before* incurring it. Please ensure your scholars receive signed, written approval from you (or other authorised person) before they are required to incur any expenditure.

Should you need the university to expend money on the project, our normal processes are described below. Equivalent information is given in the Scholars' and Academic Supervisor's manual so all parties know the suggested procedures. Scholars undertake financial management of their projects under their Supervisors' oversight and in conjunction with you. Scholars should consult their Supervisor before proposing any new expenditure to you. Your organisation's funds need to be handled properly, so we also require expenditure incurred through the university to be approved by the Academic Supervisor.

CEED program fees

For funded projects, your organisation pays a project fee to the CEED program that covers the studentship and the usual access to University resources afforded to students undertaking research projects. These are invoiced in two instalments;

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

The CEED program can offer some flexibility in the timing invoicing – for example, expenditures may need to be incurred in a particular financial year. Contact the CEED office if you need to discuss this.

Ideally, you should raise a purchase order for the University to invoice against; if an invoice is needed to create the PO, let the CEED office know and an invoice will be raised.

Deliverable preparation expenses

The project fee includes a small sum from which scholars can recover expenses incurred in the preparation of deliverables and other minor project expenses without generating excessive paperwork. Claims need to be submitted by the scholars to the CEED Office, verified by their Supervisor, giving account of the

expenditure. This sum is *not* for transport costs, which tend to be a sensitive issue with many CEED Clients (see below).

Travel expenses

Under the standard project agreement, CEED Clients agree to reimburse the university and scholars only for expenses incurred for travel outside the Perth metropolitan area, provided you have agreed to it in writing.

If you want CEED Scholar transport claims to be handled through the university, special arrangements confirmed by you in writing are essential. Should you decide to reimburse CEED Scholars for travel *within* the metropolitan area, this will need to be confirmed in writing if you want the university to process the claims.

With that said, in instances where CEED Scholars are required to travel beyond the metropolitan area, the vast majority of CEED clients choose to handle the expenses internally, taking advantage of their in-house travel processes and facilities:

- For travel to remote sites, it has been universal for clients to book and incur expenses through their usual in-house arrangements
- For travel by car, it is usual for scholars to use the organisation's vehicles, or travel with their mentors – travel reimbursement rates for personal car can be quite expensive.

As a result, it has been extremely rare in recent years for travel expenses to be incurred through the University.

General approach to expenditure

As a general principle with CEED projects, if you require the university to spend money on the project on your behalf:

1. prior written authorisation from you is essential;
2. Schools and Supervisors will handle payments from their own accounts as the job progresses. Claims for reimbursement will be made through the CEED Office;
4. when the project is complete, the CEED Office will invoice you and, when the account is met, arrange for the school or Supervisor to be reimbursed. Where expenditure is large progress payments may be sought.

Specific procedures for expenditure

If your project incurs extra expenses, you can arrange to handle it in one of three ways:

1. Work by university or others on "fixed price"

CEED Scholars can obtain "fixed price" quotations from school providers (or other contractors) for goods and services, and obtain written approval from you to proceed. The university school then places orders under its regular accounting

system. The CEED office will arrange for you to be invoiced and reimburse the university school.

2. Work by university on "time and materials" basis

This is sometimes convenient, but can be administratively messy. CEED Scholars must obtain written approval from you for expenditure on a "time and materials" basis up to an agreed price limit. CEED Scholars (through their Supervisors) then arrange to buy the items and have technician time logged and charged to the project. All expenditure (including use of stock materials) is recorded against the project. When the job is complete, the CEED office will invoice you and reimburse the university school. For your information only, a project expense sheet (to be completed as necessary by CEED Scholars) is shown on the next page.

3. Incur expenditure through your organisation

As Mentor, you obtain the required goods and services through your organisation's normal channels. This approach requires the least involvement of CEED Scholars and university accounting systems. If you want CEED Scholars to maintain records of such costs, please make sure the requirement is included in the Project Brief.

Approaches 1 and 2 are commonly used when:

- University Workshops are used to build test rigs or equipment,
- when consumables, materials and equipment need to be purchased, or
- when University test facilities that charge set user fees (such as the Centre for Microscopy, Characterisation and Analysis) are accessed

Approach 3 is often used when work is to be done primarily at the Client's premises, or when it is easy for the client to access items through period contracts or other purchasing agreement.

Supervisor			
CEED Director			Project Expenses

Authorisation to Incur Project Expenses

Project Number	
Project Title	
Client	
CEED Scholar	
Supervisors Project Grant (this must be completed)	BU: PG:

Purpose of Expenditure	
Estimated Expenditure	
Quotation/ Estimate Source	
Attachments	<i>[All Quotes/Estimates comprising the estimated expenditure must be attached and listed here]</i>

Authorisations

	Name	Signature	Date
Mentor			
Supervisor			
CEED Director			

12. Studentship

- **CEED Scholars undertaking funded projects receive a tax-exempt Studentship paid by the university (from the project fee) on behalf of the CEED Partner.**
- **Scholars undertaking a pro-bono project do not receive a studentship.**

CEED Scholars who have no other special relationship with your organisation (e.g. cadetship) generally have a uniform arrangement for their Studentship and vacation work. Those with scholarships or cadetships from your organisation may have different financial arrangements.

Studentship details

Each scholar receives a tax exempt Studentship (through the CEED Office) over the full term of the project. A standard sum for this is already included in the CEED project fee.

For Final Year Engineering and Honours level students undertaking full projects there are three equal instalments:

1. Upon submission to the CEED Office of a Project Brief signed by all parties;
2. Upon commencement of the second semester of the project
3. Upon completion of the project, defined as when the Client provides documentation that all deliverables have been received and accepted.

For Final Year Engineering and Honours level students undertaking 3/4 projects there are two equal instalments:

1. Upon submission to the CEED Office of a Project Brief signed by all parties;
2. Upon completion of the project, defined as when the Client provides documentation that all deliverables have been received and accepted.

Studentships are paid by electronic funds transfer. If you have any queries regarding the Studentship, please contact the CEED Office.

Scholars with a scholarship or cadetship

There are instances where organisations wish to engage students who have an existing scholarship or cadetship with the organisation. In these circumstances, the mechanism providing the greater support to the student is used for the CEED project, *unless your organisation is happy for them to receive both*. Invoices covering CEED fees and Studentships are adjusted according to your organisations preferred arrangements.

If scholars have an employment relationship with your organisation, then that is regarded as separate to the CEED project. It is assumed that their employment

arrangement will be paying them for other work performed by the organisation, and that the studentship will pay for the work undertaken on the CEED project. In such cases, there are no changes to the usual studentship arrangements.

13. Arrangements for Site Work

- All “full” CEED projects include a period when the Scholars work on site during the summer vacation, usually at the CEED Client's premises
- If the needs of the project dictate, some of that site time can be spent on campus – but spending some time at your premises is valuable.
- The CEED program can arrange for office space on campus if circumstances make it impractical for Scholars to be welcomed on site.

Site work period

As part of the CEED project, your organisation arranges for the scholars to work on their project at your site full time for a predetermined period of time during the vacation periods (usually 8 weeks). CEED Scholars should negotiate dates with you 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 some of that period to be during the mid-year vacation if it better suits the project. Site time cannot be made up during the academic semester.

While the 8 week full-time vacation period is standard, in many instances our 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 helps them focus on the project, maintain connection to your team, and may be essential for accessing resources that are necessary for the research.

It is preferable that as much of the site work period as possible be undertaken at your premises or work sites – it helps immerse the scholar in your culture and operations, providing valuable context for their research. There will be occasions when the needs of the project dictate that the CEED Scholar be based on campus during the vacation to access University facilities – but even in those instances spending some time on your site will enhance outcomes.

Of course, as we have seen in 2020, unusual circumstances can arise. If access to premises is limited due to restricted staffing or space requirements, the CEED office can arrange office space on Campus for scholars (with access to meeting facilities). Contact the CEED office if this becomes necessary for your project.

Extended site period

If scholars wish to work on site for longer than the set period, they need to negotiate this separately with you. You are under no obligation to allow a longer period, nor

to offer additional remuneration for any extra period.

If you do offer a scholar paid employment in addition to their CEED engagement, any such arrangement is between you and the CEED Scholars. Please make sure there is a written record of the dates for any additional paid employment as there are insurance ramifications (see section: "Insurance and Safety on site").

Other site experience

Assessment of CEED Scholars' performance on CEED projects will be based on the assumption that they use the site work period effectively. CEED Scholars should therefore spend the majority of their time on site working on their projects and matters directly relevant to the projects.

You may invite them to participate in your regular vacation training program – given the importance of vacation programs to graduate employment we advise our scholars to take advantage of such opportunities, though do remember that only an 8 week commitment is expected from the scholars.

Sometimes you may wish to 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, our scholars are welcome to take the opportunity since broadening experience is a major outcome of the CEED program.

14. Insurance and Safety

- **Responsibility for safety and insurance needs to be understood because students are not employees of UWA or the CEED Client.**
- **UWA has insurance in place, but all parties should know the situation.**

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

Insurance

In brief (and subject to the appropriate clauses in the standard project agreement), the university provides professional indemnity for CEED Scholars while working on their projects, including periods when visiting and carrying out project work on site (excluding any periods in your employment), and the University's student placement insurance covers them during their time on site.

Certificates and policy details can be supplied if required.

Employment periods

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

Should you elect to employ a scholar, please ensure the dates are clearly stated in writing so that liability for insurance is always clear.

Safety on site

If your organisation requires the scholars to attend a work safety or other training program, please make arrangements directly with the scholars. Please impress upon your CEED Scholars that industrial sites often contain unforeseen dangers and encourage them to ask someone on site if in any doubt.

15. Agreements

- **The Standard CEED Project Agreement covers all basic aspects of CEED projects.**
- **Confidentiality requirements may be included.**
- **Intellectual property ownership must be agreed within 30 days of starting.**
- **Any IP concerns should be referred to the CEED Office as soon as they arise.**

Contractual documentation for CEED projects has been minimised, but still forms an important part of developing a sound working relationship between CEED Clients and the university. Contractual issues are handled by the CEED Office, not the Academic Supervisor.

Agreement document

Unless your organisation has a special agreement in place, the "CEED Project Agreement" available at the CEED web site www.ceed.wa.edu.au covers the commitments by the university and CEED Client with respect to the project, including arrangements for handling ownership of intellectual property.

Some important areas covered by the Agreement are outlined below for your convenience. In the event of any discrepancy between the Agreement and this manual, the Agreement takes precedence.

Agreement with Scholars

CEED Scholars sign a formal application for, and acceptance of, their project. They also sign a "Student Undertaking" which formalises their relationship with the CEED Project Agreement.

Status of scholars: When scholars accept their CEED projects, they are acting as private individuals to perform a particular bit of work. *They are not employed by the university, nor by your organisation*, although we both commit time, effort and other resources to the project and the scholars' development.

If you require an additional agreement with your CEED Scholars because of restrictions on site or confidentiality, please forward the agreements to the CEED Office. We will review the agreements with our legal team to confirm that they are necessary and appropriate for the Scholars and/or University to sign.

Intellectual property

Experience has shown that Intellectual Property (IP) does not usually become a major issue with CEED projects, but can be a matter of concern with some CEED Clients. CEED projects can potentially develop material or knowledge of significant commercial value. Ownership of any resulting intellectual property could therefore

be of considerable interest. Few CEED projects result in an outcome of major commercial value in their own right, so the default option with the Standard CEED Project Agreement has intellectual property shared equally between the university and CEED Client. The University acts on behalf of the Scholars who are treated as if they were UWA staff, giving them benefits if UWA receives benefits.

With the alternative option, CEED Clients elect at the start of the project (i.e. within 30 days of the appointment of the first student) to pay a fixed fee surcharge to obtain full ownership of IP produced during the project. Ownership of "Background IP" is unaffected by the surcharge. If you require special arrangements to be negotiated, please inform the CEED Office.

CEED Scholars sign their IP over to the University when they sign the Student Undertaking, enabling the University to manage the IP with the Client according to the IP option that has been chosen.

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.

Confidentiality

If CEED projects deal with commercially sensitive information, extra arrangements may need to be made. While normal student theses are usually "published" soon after project completion, the default arrangement is for CEED project theses to be submitted as confidential documents, with markers advised of the requirement to maintain confidentiality. The standard arrangement is that these then be held confidential for at least 2 years (longer periods can be arranged via special agreement)

If your organisation requires university personnel involved in the project (eg. Academic Supervisors or thesis markers) to sign an individual agreement on confidentiality, please contact the CEED Office. We will review the agreements with our legal team to confirm that they are necessary and appropriate for the Supervisors and/or University to sign. Often a single agreement with the University is sufficient with such cases, since all Supervisors are University employees.