



International Centre of Excellence in
Water Resources Management

Guidelines for organisations: Industry projects



An Australian Government Initiative



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1. Background

The Master of Water Resources Management offers a pool of human resources, with students from five partner universities in Australia, including:

- University of Adelaide
- University of South Australia
- Flinders University
- Deakin University
- Central Queensland University

For companies, industry and government departments searching for additional resources for upcoming projects, or new talent to join their organisation, ICE WaRM's Industry Projects may be an ideal option.

Students undertaking the Industry Project (Minor or Major) are in their final year of study, and have developed specialisations in one of the five streams offered:

- Ecosystem and Catchment Management
- Management of Water Infrastructure
- Water Quality and Treatment
- Groundwater Hydrology/Hydrogeology
- Irrigation
- Water Planning

These Masters final year students are ready to gain real work experience, take on new challenges and contribute to the projects that are nominated by companies and organisations. Many of these students, on graduation of their Master of Water Resources Management, are on the lookout for jobs in the water industry, so this is a good opportunity for the student to gain valuable hands on skills, and the host organisation to assess the skills of the individual who may be a potential employee.

To read more about the Masters programme, see the ICE WaRM website www.icewarm.com.au by clicking "Programmes", "Education" and "Master of WRM".

| Benefits to the organisation | Benefits to the student |
|---|--|
| Access to a graduate supported by the resources of the university | Links to a company to gain valuable real work industry experience |
| A cost effective alternate to employing a person or hiring a consultant | Enhanced understanding of the work place including, culture, practices and nature of work |
| Opportunity to mentor and guide young people in the early stages of their professional development | Development of technical skills and operational procedures |
| Ownership of the results or the work undertaken through student signing of a Confidentiality Agreement | Development of personal skills including communication, team working and interpersonal relations |
| An opportunity to enhance the training and skills of a graduate to complement their academic achievements | An appreciation of work requirements and organisation expectations |



| | |
|---|--|
| An opportunity to assess the skills of a graduate for consideration as a possible future employee | A stipend to offset additional costs |
| Links with university academic staff, departments and access to university resources for student projects | Academic and industry mentoring to help students succeed into the future |



2. Masters Study Option 4 – Major Industry Project

The Major Industry Project is equivalent to 4 courses (approximately 600 hours student effort). The Major Industry Project may be taken over two semesters. Industry Projects will be of a professional nature and will be undertaken within an organisation operating within the water industry.

Students are expected to undertake either:

| | |
|---------------------------------------|---|
| Option 1 – Industry Based Project | Student completes project in the work place |
| Option 2 – Industry Sponsored Project | Student completes project at the university |

2.1 Industry Based Project – Option 1 Student completes project in the work place

Organisations provide a Workplace Supervisor and a meaningful work experience which will on completion enable a student to be able to:

- Understand the structure, operation and responsibilities and business culture of a company or organisation
- Contribute to technical projects as an individual or team member
- Critically describe the influences of financial, technical, institutional, social and environmental issues on the business operations.

Project duration, starting dates and hours worked

Students are required to contribute 600 hours (15 weeks x 40hours) of effort comprised of:

| Contribution | Hours of effort |
|--|-----------------|
| 13 weeks in the workplace @ 40 hours | 520 hrs |
| 2 days Professional Development Training | 16 hrs |
| 5 days Report Writing and Journal Keeping | 40 hrs |
| 3 days Presentation preparation and attendance | 24 hrs |
| Total 15 weeks contribution | 600 hrs |

Reporting and presentation

| | |
|----|--|
| 1. | Written Report - 5,000 words (80% assessment) |
| | Students are required to produce a written report outlining: <ul style="list-style-type: none"> • The organisation governance structure, operations, products and services, target markets, and business culture; (10%) • Critical analysis of the financial, technical, institutional, social and environmental |



| | |
|----|---|
| | issues on the business operations; (20%) <ul style="list-style-type: none"> • Details of the technical work undertaken and their contribution. (70%) |
| 2. | Presentation – 15 minutes (15% assessment) |
| | Students are required to deliver a 15 minute presentation to their fellow students, academic staff and industry representatives. |
| 3 | Journal (5%) Students are required to a keep a journal of their activities during the Industry Project. |

Fees

The Organisation fee for Major Industry Projects (Option 1- Industry Based Project) is as follows:

| | | |
|------------------|------------------------|-------------------|
| <i>Income</i> | International Students | Domestic Students |
| Organisation Fee | \$6,000 | \$6,000 |

2.2 Industry Sponsored Project – Option 2 Student completes project at the university

Organisations provide a meaningful project which will on completion enable a student to be able to have contributed to technical projects as an individual or team member.

Project duration, starting dates and hours worked

Students are required to contribute 600 hours (15 weeks x 40hours) of effort comprised of:

| Contribution | Hours of effort |
|--|-----------------|
| 13 weeks in the University @ 40 hours | 520 hrs |
| 2 days Professional Development Training | 16 hrs |
| 5 days Report Writing and Journal Keeping | 40 hrs |
| 3 days Presentation preparation and attendance | 24 hrs |
| Total 15 weeks contribution | 600 hrs |

Location and supervision

The Option 2 Industry Sponsored Project is usually conducted at the university. Depending on the project, part of the work may also be conducted at other sites such as laboratories, libraries etc.

Organisations are expected to provide a Work Mentor, who will offer guidance to the student and ensure relevance to the organisation. The University will provide a Academic Supervisor who will be responsible for ensuring the student meets the academic assessment and will provide regular supervision and guidance.



Reporting and presentation

| | |
|----|---|
| 1. | Written Report - 5,000 words (80% assessment) |
| | Students are required to produce a written report outlining: <ul style="list-style-type: none"> • Details of the technical work undertaken and their contribution. • What they have learned about their organisation and research |
| 2. | Presentation – 15 minutes (15% assessment) |
| | Students are required to deliver a 15 minute presentation to their fellow students, academic staff and industry representatives. |
| 3 | Journal (5%) |
| | Students are required to a keep a journal of their activities during the Industry Project. |

Fees

The Organisation fee for Major Industry Projects (Option 2 - Industry Sponsored Project) is as follows:

| | | |
|------------------|------------------------|-------------------|
| <i>Income</i> | International Students | Domestic Students |
| Organisation Fee | \$3,000 | \$3,000 |

3. Masters Study Option 2 – Minor Industry Project

The Minor Industry Project is equivalent to 2 courses (approximately 300 hours student effort) and is taken over one semester. Students will undertake a professional experience with approved Host Organisations. These Host Organisations will provide a Work Mentor and a meaningful work experience which will on completion enable a student to:

- understand the structure, operation and responsibilities and business culture of a company or organisation and
- contribute to technical projects as an individual or team member.

Students are expected to undertake either:

| | |
|---------------------------------------|---|
| Option 1 – Industry Based Project | Student completes project in the work place |
| Option 2 – Industry Sponsored Project | Student completes project at the university |

3.1 Industry Based Project – Option 1 Student completes project in the work place

Organisations provide a Workplace Supervisor and a meaningful work experience which will on completion enable a student to be able to:



- Understand the structure, operation and responsibilities and business culture of a company or organisation
- Contribute to technical projects as an individual or team member
- Critically describe the influences of financial, technical, institutional, social and environmental issues on the business operations.

Project duration, starting dates and hours worked

Students are required to contribute 300 hours (15 weeks x 20hours) of effort comprised of:

| Contribution | Hours of effort |
|--|------------------------|
| 13 weeks in the workplace @ 20 hours | 260 hrs |
| 2 days of Professional Development Training | 16 hrs |
| Report Writing and Journal Keeping | 24 hrs |
| Presentation Day attendance – recommended but not compulsory | |
| Total | 300 hrs |

Student reporting

| | |
|----|---|
| 1. | Written Report - 4,000 words (100% assessment) |
| | Students are required to produce a written report outlining: <ul style="list-style-type: none"> – The organisation governance structure, operations, products and services, target markets, and business culture; and – Critical analysis of the financial, technical, institutional, social and environmental issues on the business operations. |

Fees

The Organisation fee for Minor Industry Projects (Option 1: Industry Based Project) is as follows:

| <i>Income</i> | International Students | Domestic Students |
|------------------|------------------------|-------------------|
| Organisation Fee | \$4,000 | \$4,000 |

3.2 Industry Sponsored Project – Option 2

Student completes project at the university

Organisations provide a meaningful Work Mentor which will on completion enable a student to be able to contribute to technical projects as an individual or team member.

Students are required to contribute 300 hours (15 weeks x 20hours) of effort comprised of:



| Contribution | Hours of effort |
|--|-----------------|
| 13 weeks in the University @ 20 hours | 260 hrs |
| 2 days of Professional Development Training | 16 hrs |
| Report Writing and Journal Keeping | 24 hrs |
| Presentation Day attendance – recommended but not compulsory | |
| Total | 300 hrs |

Reporting

| | |
|----|---|
| 1. | Written Report - 4,000 words (100% assessment) |
| | Students are required to produce a written report outlining: <ul style="list-style-type: none"> • Details of the technical work undertaken and their contribution. • What they have learned about their organisation and research |

Fees

The Organisation fee for Minor Industry Projects (Option 2: Industry Sponsored Project) is as follows:

| Income | International Students | Domestic Students |
|------------------|------------------------|-------------------|
| Organisation Fee | \$2,000 | \$2,000 |

4. Processes and Procedures

4.1 How does my organisation get involved with hosting student projects?

In brief, interested Host Organisations:

- Have an upcoming project/s that are suitable for Masters students to undertake
- Can provide the supervision, mentoring and training required for final year students
- Complete the *Registration of Interest* form and return it to the Industry Project Coordinator at training@icewarm.com.au

Industry Projects will run twice per year, in February (Semester 1) and July (Semester 2). Once the registration form has been received by ICE WaRM, ICE WaRM will acknowledge receipt of your registration. Once confirmed by both parties, your project details and specifications will be added to ICE WaRM's Industry Projects database. After the project deadline, the relevant student applications will be forwarded to you with student CVs for your company's selection. The recruitment, matching and selection process is outlined earlier in this document.



If your organisation would like to take on a Masters student/s for a project, it must register interest in Industry Projects and submit the completed form by the required dates. Organisations can also specify if their project is a once-off or the company will be likely to offer on-going projects.

4.2 Some tips before registering a project

Prior to beginning the student-project matching process below, here are some recommendations for the Host Organisation when registering a project that would provide the maximum benefit.

- **Categorise** the projects into “major” or “minor” industry projects according to the criterion and requirements of each (major – 600 hours equivalent, minor – 300 hours) so this can be matched with the students’ preferences
- **Identify** a specific research, development or improvement problem or issue that, on completion, would provide a not only a good return on investment but also a useful training opportunity for the student/s undertaking the project
- **Shortlist** the best project options/ideas
- **Specify deadlines** – considering work deadlines, identify a start and end date bearing in mind the time frame for both major and minor industry projects
- **Appoint** a suitable Workplace Supervisor or Work Mentor, and/or Project Contact person. The Project Contact could be an HR person, or it could also be the Supervisor. The Workplace Supervisor needs to be available throughout the duration of the project (3-6 months).
- **Gain company approval** for the project
- **Register** interest and your company/project details with ICE WaRM



4.3 Recruitment, matching and selection process flowchart

Before the Industry Project can commence, there is a process for aligning the needs of the Host Organisation and the student undertaking the project – see the flowchart below. The recruitment and matching process in the left column details the sourcing of projects and of suitable students. The right column details the selection process for Host Organisations to narrow down the possible students, arrange an interview to discuss the project details and expectations, and agree on a suitable plan or outline, agreed upon by all parties.

RECRUITMENT AND MATCHING

Deadlines for submission: Dec/May annually

SELECTION PROCESS

Total period of time: 3-4 weeks

1. Potential Host Organisation submits *Registration of Interest form* to ICE WaRM with project details, ICE WaRM acknowledges receipt.



2. ICE WaRM and the Academic Supervisor review student applications at deadline against criteria of Host Organisations.



3. ICE WaRM forwards the most appropriate / suited applications and CVs to Host Organisation/s for review.



4. Host Organisation has 2 weeks to review application/s and shortlist. If there is more than 1 potential, a phone or face to face interview is to be arranged asap with the assistance of ICE WaRM.

7. Student completes a *Project Outline / Plan*. This is signed by the host organisation/Academic Supervisor and forwarded to ICE WaRM.



6. ICE WaRM arranges with the Host Organisation for the first meeting with the student to go through the project outline/plan, expectations, and to agree on a start work date and



5. Host Organisation confirms to ICE WaRM the successful applicant, and returns the signed the student's form.





5. Requirements before, during and after an industry project

Note: Project requirements vary slightly depending on whether students undertake a Major or Minor Project, Option 1 or 2.

KEY

| | |
|-----|---|
| O1 | Option 1 – Student at Workplace |
| O2 | Option 2 – Student at University / Other Location |
| HO | Host Organisation |
| UNI | University |
| STU | Student |
| ICE | ICE WaRM |

5.1 Before the commencement of the project

| Requirement | O1 | O2 | Responsible |
|--|----|----|-------------|
| <i>A meeting for the Host Organisation to meet with the provisionally selected student to discuss:</i> | | | |
| * Background information on your organisation | X | X | HO |
| * Outline of the proposed project | X | X | HO |
| * Introductions | X | X | HO |
| * Start date, work schedule | X | X | HO |
| * Specific workplace requirements, e.g. OH&S, dress, security | X | | HO |
| * Appointment of the Workplace Supervisor and briefing | X | | HO |
| * Appointment of the Work Mentor and briefing | | X | HO |
| * Ensure resources are prepared/set up, e.g. desk, computer, network access | X | | HO |
| * Insurance, the students will be covered by the University's Public Liability Insurance Policy, Professional Indemnity and Student Personal Accident) | X | X | UNI |

5.2 During the project

| Requirement | O1 | O2 | Responsible |
|---|----|----|-------------|
| The Industry Project is usually conducted at the Host Organisation's premises | X | | HO |
| Depending on the Project, part of the work may also be conducted at other sites such as laboratories, libraries etc | | X | UNI |
| Organisations are expected to provide a Workplace Supervisor in the case of the Minor and Major Industry Project | X | | HO |



| | | | |
|--|---|---|----------|
| The University will provide a Course Coordinator / Academic Supervisor who will be responsible for ensuring the student undertakes the academic assessment. | X | X | UNI |
| In the case of the Major Industry Project and Minor Industry Project (O2) , the Organisation is expected to provide a Work Mentor. | | X | HO |
| Students should be undertaking the project independently and often as part of a project team. | X | X | STU |
| The student receives regular supervision and direction, where student and supervisor meet briefly (half an hour or less) regularly. | X | | HO / STU |
| The student receives regular guidance and direction from the Work Mentor, where student and mentor brief one another regularly. | | X | HO |
| The Workplace Supervisor will complete a student progress report towards the end of the student's project for the student and Academic Supervisor's information. | X | | HO |
| The Work Mentor will complete a student assessment towards the end of the student's project for the student and Academic Supervisor's information. | | X | HO |
| ICE WaRM will facilitate Professional Development Training over 2 days, dates to be confirmed. The Training will cover topics such as: <ul style="list-style-type: none"> • Report Writing and Presentation Skills • Business Communication and Interpersonal Skills • Workplace Culture and relevant Acts e.g. Occupational Health and Safety • Project Management • Organisational Ethics | X | X | ICE |

5.3 After the project - Retaining the student and future projects

If an Organisation wishes to retain the student after the project the period, they can negotiate directly with the student.

If there are opportunities for ongoing work on the same project, the Host Organisation should check with ICE WaRM that these are documented on ICE WaRM's matching database. Similarly, if the student (Masters graduand) knows of suitable or recommended students who are intending on doing an Industry Project, they can approach ICE WaRM and the Host Organisation with their recommendations.

6. Intellectual property and confidentiality

All Intellectual Property Rights belong to the Organisation. Students will treat Organisation provided information as confidential and will be required to sign a *Confidentiality Agreement*.



It has already been noted that students are not actually employed by the Host Organisation during their Industry Project. They would be covered by the University's Public Liability Insurance Policy.

There are also several kinds of insurance which are provided for each ICE WaRM Masters Industry Project, covering students from all participating Universities.

A Certificate of Currency will be provided for each project; these include Certificates of Currencies for:

- Student/Personal Accident
- Professional Indemnity
- Public and Products Liability

6.1 Between student and Host Organisation:

All Masters students will be required to sign a clause of Confidentiality not to disclose any information about the company gained during their project.

6.2 Between university and Host Organisation:

Prior to the student undertaking the Industry Project, the student's host university will be required to agree to and sign the contract which acknowledges the company's ownership of the findings and other details, and the University's requirement to comply with the terms of any contract with the sponsor, and to be able to commercialise all of the IP resulting from the project (see paragraph below):

6.3 Where students are undertaking research as part of a project between the University and an external sponsor or on a commercially-oriented project, the University may request an assignment of the student's IP, in most cases before allowing the student to participate in that particular project. This permits the University to comply with the terms of any contract it may have with the sponsor, and to be able to commercialise all of the IP resulting from the project. The assignment of IP does not include assignment of the copyright in the student's thesis or in publications authored by them and arising out of their studies. The University recognises that students must retain the ability to control the reproduction of the text of their thesis to ensure that their careers benefit from publishing the results of their work.

7. Responsibilities of industry projects

| Responsibilities: Organisation, Student and University | | |
|---|--|--|
| Organisation | Student | University |
| Provide supervision and guidance to the student as required | Work professionally and ethically within the Organisation's guidelines | Provide academic supervisor/contact, maintain regular correspondence with student. |



| | | |
|---|--|--|
| Provide a work space and equipment as required | Maintain regular contact with Workplace / Academic Supervisors | Set assessment requirements |
| Take part in the student selection | Prepare a report and make a presentation | Take part in the student review/selection |
| Provide some equipment and tools required for project | Comply with the Host Organisation's standards and Occupational Health and Safety requirements. | Review the report and participate in presentations |

ICE WaRM will:

- Host a portal page promoting Industry Projects for students and organisations;
- Identify suitable organisations willing to host a student on an Industry Project;
- Liaise with the host organisations, universities and students both prior to and during the selection/matching process and project duration;
- Organise the Professional Development training;
- Facilitate report submission through the student portal; and
- Manage the Presentation Day.

7.1 Troubleshooting

Where queries arise, Host Organisations (Workplace Supervisors, Work Mentors and Organisation Contacts) may contact ICE WaRM's Industry Placement Coordinator on training@icewarm.com.au or by phone on (08) 8236 5213.



Appendix 1: Terms and references

| Term/Reference | Definition |
|--------------------------------|--|
| Academic Supervisor | The student's contact person at their home university, who is responsible for guiding the student and ensuring they undertake the required academic assessment. |
| Certificate of Currency | Several kinds of insurance are provided for each ICE WaRM Masters Industry Project via the Certificate of Currency, covering students from all participating Universities. |
| Confidentiality Agreement form | This form will be signed by the students and the organisation. The student will not be an employee of the company, but a University-sponsored student, and will be covered by the University's Public Liability Policy. |
| Host Organisation | A company, organisation or department that takes on a student to undertake an approved Industry Project. |
| ICE WaRM Student Portal | Student web interface for students and staff to login and access course materials; contact others; see updates and download information. |
| Industry Based Project | Student completes project in the work place with a Workplace Supervisor |
| Industry Sponsored Project | Student completes a project at the university with a Work Mentor and Academic Supervisor |
| Organisation Contact Person | The Host Organisation may wish to appoint a separate contact person who acts as the liaison with ICE WaRM regarding ongoing project registration and correspondence, or this could be the Workplace Supervisor. |
| Project Outline / Plan form | The form that is completed by the student with the assistance of the Workplace Supervisor to formalise the initial outline for achieving the aims/goals of the project. This will eventually form the basis of the Student Form Part B, which the Supervisor assists the student with. |
| Registration of Interest form | The form that is completed by the Host Organisation, which specifies in detail the proposed project's requirements, expectations and aims. This form is received by ICE WaRM to match with the student's Registration of Interest. |
| Student | A final year Masters student who undertakes an Industry Project with a Host Organisation and is enrolled with their home university. |
| Work Mentor | An industry contact and mentor for students conducting Industry Sponsored Projects at the University. |



| | |
|----------------------|---|
| Workplace Supervisor | The Host Organisation designates this person to be the contact guide for the student's progress during their Industry Project, and this person meets regularly with the student and completes student progress reports. |
|----------------------|---|



Appendix 2: Comparison of Industry Project Details

Overview of Industry Project Types, Duration, Fees and Deadlines

| Industry Project Type | Sem 1 | Sem 2 | Total Equivalent Student Workload | Requires | Registration Deadline | Fee per student (Intl/Local = same fee) |
|--|-------|-------|---|----------------------|---|---|
| MAJOR – Option 1 (Industry Based Project) | ✓ | ✓ | 15 weeks full time = 600 hours | Workplace Supervisor | 15 December: Semester 1 15 May: Semester 2 | \$6,000.00 |
| MAJOR – Option 2 (Industry Sponsored Project) | ✓ | ✓ | 15 weeks full time = 600 hours <i>*Conducts work at University</i> | Work Mentor | 15 December: Semester 1 15 May: Semester 2 | \$3,000.00 |
| MINOR – Option 1 (Industry Based Project) | ✓ | ✓ | 15 weeks part time = 300 hours | Workplace Supervisor | 15 December: Semester 1 15 May: Semester 2 | \$4,000.00 |
| MINOR – Option 2 (Industry Sponsored Project) | ✓ | ✓ | 15 weeks part time = 300 hours <i>*Conducts work at University</i> | Work Mentor | 15 December: Semester 1 15 May: Semester 2 | \$2,000.00 |

Semester Periods

| | |
|------------|--------------------------|
| Semester 1 | Early March – Mid June |
| Semester 2 | Late July – Mid November |

Note: The semester dates above are approximate start and end dates according to the University calendars. The exact period of Industry Project/Placement can be negotiated between Host Organisation and student.



International Centre of Excellence in Water Resources Management

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