

ANU COLLEGE OF HEALTH & MEDICINE

ANU COLLEGE OF SCIENCE

COURSE STUDY GUIDE

**SCIENCE INTERNSHIP (COURSEWORK)**

SCNC2000

SCNC3000

SCNC8000

Mar 2021

## OVERVIEW

The Science Internship program is an opportunity for you to gain industry experience during your Science degree. Placements are typically with a Host organisation related to a field of science, and you will be required to apply your technical skills and science training in a professional context. An Internship is a great way to see what a career with a degree in a Science field could look like, and will give you exposure to current industry and professional practice.

The ANU College of Science and ANU College of Health and Medicine offer a limited number of internship placements, and applications for these internship places are highly competitive.

### Science Internship Courses

The Science Internship (Coursework) can be taken under one of three course codes listed in Table 1.

*Table 1: Science Internship course codes*

Description	Prerequisites	Target audience
<b>SCNC2000</b>	72 units	For undergraduate students to gain industry exposure during their degree
<b>SCNC3000</b>	96 units	For undergraduate students to transition into industry
<b>SCNC8000</b>	Permission code	For postgraduate students to gain industry exposure

Full details of eligibility requirements and learning outcomes of each of the courses offered can be found on the Programs and Courses website (<https://programsandcourses.anu.edu.au/>).

### Learning Outcomes

Full details of the learning outcomes for each of the Internship courses can be found on Programs and Courses <http://programsandcourses.anu.edu.au/>

In general, students who have successfully completed this course should be able to:

1. Work under professional supervision, and gain useful background in the way scientists work in a professional context and how that workplace operates;
2. Communicate (orally and in writing) clearly and coherently in a professional context;
3. Analyse, consolidate and synthesise broad theoretical and professional knowledge through research to identify and propose solutions to complex problems with intellectual independence;
4. Exercise critical thinking and judgment in the context of developing advanced professional knowledge; and
5. Plan and execute a project.

## Project Initiation and Enrolment

Full details for starting an Internship can be found at <http://science.anu.edu.au/study/internships>.

Once you have been selected for a placement with the Host organisation, you should:

1. Identify and organise for an appropriate ANU supervisor from a field related to your project
2. Complete the Internship Schedule, which needs to be signed by the host supervisor, the ANU supervisor and yourself
3. Complete the ANU insurance form and Enrolment Change form

Once these steps have been completed, the Insurance office will issue you with an insurance coverage letter, and the Science Student Administration office will enrol you in the appropriate course code. You will be advised to attend a compulsory Internship Induction Session prior to the start of your placement.

## Expected Workload

Students undertaking a Science Internship should anticipate the time commitment shown in Table 2.

*Table 2: expected breakdown of workload*

Description	6-unit	12-unit	Notes
<b>Placement with host</b>	~ 90 hours	~ 180 hours	Suggested 1 day/week for a semester, or equivalent
<b>Independent research/study</b>	~ 40 hours	~ 80 hours	For related activities outside the placement
Total	130 hours	260 hours	

An agreement around placement hours and pattern should be discussed with your Host supervisor and ANU supervisor prior to commencing the Internship.

## Indicative Assessment

The Internship should centre on an agreed project that defines the bulk of your placement activity. All activities undertaken as part of the Internship should be of value to your project, your Host organisation, or yourself. Where possible, the assessment tasks should be an output of activities undertaken on the Internship, rather than being 'for the sake of assessment'. We understand that each placement will be in a different context and with different opportunities, constraints and priorities. The outputs and appropriate timing of your project will depend on the placement. A suggested schedule of indicative assessment is shown in Table 3.

*Table 3: Indicative assessment*

Assessment Task	Size	Suggested Timing
<b>Project proposal</b>	~1000 words or aligned with Host practice	Within two weeks from commencement of placement, or no later than one-quarter of the way through your placement
<b>Written report</b>	~3000 words (SCNC2000) ~5000 words (SCNC3000 and SCNC8000)	At the completion of placement, in line with semester/session dates.
<b>Oral presentation</b>	15-20 mins (SCNC2000) 20-30 mins (SCNC3000) 30 mins (SCNC8000)	At a time convenient to the Host and ANU supervisors. Preferably at the Host Organisation. Ideally given in your final week of your placement, or shortly after project completion.
<b>Personal reflection</b>	~1000 words	Within two weeks of the completion of your placement, in line with semester/session timing.

## Submission and Grading

Please note that the Science Internship courses are not graded. This is to reflect Industry practice, where work is not graded, but benchmarked to an appropriate level. As a representative of ANU, we expect work to be of high quality (Distinction level and above), and developing your ability to benchmark the quality of your work in the context of your placement is a valuable experience whilst on your placement. If you are unsure, please talk to your Host or ANU supervisor, or the Science Internships office.

Successful completion of all required tasks will result in a grade of CRS (course requirements satisfied). Failure to complete all tasks to a satisfactory level will result in a grade of NCN.

A suggested schedule of indicative assessment is shown in Table 4.

*Table 4: Intended audience of work*

Assessment Task	Marker	Submission
<b>Project proposal</b>	ANU Supervisor Host Supervisor	Submission via Wattle and email to your ANU and Host Supervisors, and the Science Internships office
<b>Written report</b>	ANU Supervisor Host Supervisor	Submission via Wattle and email to your ANU and Host Supervisors, and the Science Internships office
<b>Oral presentation</b>	ANU Supervisor Host Supervisor	You may wish to submit a copy of your presentation slides on Wattle, though this is not required
<b>Personal reflection</b>	Science Internship Convenor	Submission via Wattle and email to the Science Internships office

All written work should be submitted to Wattle, which is used to keep a record of your submissions. In addition, please email your project proposal and written report to your Host and ANU supervisors as well as the Science Internships office ([science.internships@anu.edu.au](mailto:science.internships@anu.edu.au)).

Your personal reflection is not required to be shared with your Host and ANU supervisors, and need only be submitted on Wattle. However, you may choose to share your reflections where appropriate.

## Roles of the Supervisors

During your Internship, you will have an ANU supervisor and a Host supervisor. It is your responsibility to find an appropriate ANU supervisor before the commencement of your Internship. It is expected that a meeting with the two supervisors and the student takes place within the first week of commencement of the placement to align expectations around the project.

The **ANU supervisor** should be someone who is familiar with and interested in the area of your Internship. They will form the link between the Host organisation and the University and guide you as an academic mentor throughout the placement. It is expected that consultation between the ANU supervisor and the student occurs at least 4 times during the Internship. This can be through real-time meetings, or appropriate alternatives. The ANU supervisor is expected to uphold ANU policies and procedures regarding coursework assessment.

The **Host organisation supervisor** will provide the hands-on supervision and guidance in the workplace for the duration of the Internship, and guide students through the appropriate processes and any induction within the Host organisation. It is expected that the supervisor will provide regular feedback on the student's progress, directly to the student as a form of professional development, and via monitoring from Science Internships.

You may nominate an **Advisor** for your project, either from ANU or elsewhere, who may bring specialist knowledge that can help you with your placement. The Advisor does not take on an assessment role, but can contribute to these discussions as needed.

## Responsibility of students

Students will be required to attend a compulsory induction session prior to commencing the Internship, run by the Science Internships office. If you are uncertain about transitioning into the workplace, you can also organise to consult with the ANU Careers Centre, who can provide further guidance in professional behaviour in the workplace and effective communication. Induction sessions will be organised at a time before your placement.

During the internship, students will be expected to act in a professional manner and work under the guidance of the Host supervisor. Students should liaise with the host supervisor on a regular basis while completing the Internship.

Students will attend the Host premises as agreed and abide by the details listed in the Internship Schedule. Students will be expected to follow any business conduct guidelines, induction processes, safety procedures or workplace directions as required by the host and specific Internship Schedule.

Students encountering any problems during their placement should, if appropriate, first address these with the host supervisor. If students feel this is not appropriate under certain circumstances then issues should be raised with the ANU supervisor or the Internship convenor ([science.internships@anu.edu.au](mailto:science.internships@anu.edu.au)).

## Absences while on placement

In most cases, the work pattern of your placement will be negotiated between you and your Host Supervisor. However, if you will be absent without notice in your placement, such as being sick or non-scheduled leave, please contact your Host Supervisor and copy in the [Science.Internships@anu.edu.au](mailto:Science.Internships@anu.edu.au).

# GUIDANCE FOR ASSESSMENT TASKS

## Project proposal

The project proposal should outline the scope of the project to be undertaken at the start of the placement. It is recognised that the direction and focus of the project may change during the Internship depending on findings and other factors outside of your control. The proposal should be seen as an indication of intent, not necessarily the final outcome.

There is no fixed template for the project proposal. Your Host may have an internal process for proposing a project or developing a business case. It would be valuable for your experience to follow and tailor these processes for your project. Use it as an opportunity to scope the project you will undertake whilst on your placement, and set up the expectations with your Supervisors.

Each proposal will cover different topics, but place to start could be considering the following prompts. These are not required, and should be tailored to your situation:

- Identification of project aims and goals
- Outline of roles and responsibilities of supervisors and yourself
- Indication of stakeholders or other project-enabling resources
- An indicative timeline of milestones or project phases
- A contingency plan in case milestones are not or cannot be met, or stretch goals
- Consideration of how difficult or sensitive situations could be resolved
- A risk v likelihood plan for aspects of your project

## Written report

The Science Internship requires the completion of a final report under the direct supervision of a professional in a workplace and with guidance from the ANU supervisor. The written report should be in a format most useful to your Host organisation – ideally, they will use your project outcomes well after your placement is complete. In this light, you should discuss your intended format with your Supervisors. Your written report might take the form of:

- **A scientific report**, including executive summary, rationale, methods, results, conclusions, recommendations and future research
- **A research paper**, written in the style of a literature research paper or essay
- **A scientific analysis**, prepared for scientists looking to understand and repeat your analysis. This might include artefacts that you have developed, such as apparatus, methodology or code
- **A position paper**, providing insights you've developed through the project for a broader audience
- **A business proposal**, that outlines the case for a business proposal based on your work
- **A portfolio of work**, highlighting the various artefacts you have developed and how they fit together
- **A repository of work**, showcasing and containing the artefacts you have developed
- **A collaborative report**, where you can highlight your contribution through a rationale or explainer
- **A handover document**, so that someone else can continue your project into the future
- Any combination or extension of these relevant to your Host or your science discipline

Students should be aware that if they intend to conduct interviews with people or use a written survey as part of an applied research project they will need to seek ethics permission from University authorities. Further information can be found at: <https://services.anu.edu.au/research-support/ethics-integrity/before-you-begin>

The report will be assessed by the ANU supervisor with input from the Host supervisor. You should discuss their expectations for this throughout your project. To meet the CRS requirement of the course, your Host and ANU supervisor must agree that you have demonstrated on your placement and through your written report:

- Adequate background knowledge for the project
- Communicated the outcomes of your project in a professional manner
- Been able to analyse, consolidate and synthesise knowledge relevant to your project
- Exercised critical thinking and judgement in the context of your project

## Oral presentation

The Science Internship requires the completion of an oral presentation to a professional and academic audience. Your presentation is an opportunity to showcase the work that you have done within the Host organisation, and is a great opportunity for all the stakeholders of the project to meet face-to-face. Generally, it is expected that the oral presentation will take place at the Host institution to allow attendance and participation from staff not directly involved in supervision. Please make sure that all attendees are introduced to one another during your presentation.

As a guide, some points that you may cover in the presentation include:

- What was the goal or aim of your project?
- What is the current state of scientific knowledge related to your project?
- What activities did you undertake during your project, including phases and milestones?
- What are the outputs that your project has generated?
- What are the limitations of your work, or areas for future research?
- What have you learned, or what would you do differently in the future?
- Who do you need to acknowledge as part of the project?

## Personal Reflection

The purpose of the personal reflection is to reflect on your learning in the Internship as a launching point for the next part of your career. There are a number of options for the presentation of the Personal Reflection, and you should pick an option or combination of options that make sense for your situation. Primarily, please do something that is going to add value to your placement, or to your career. If you are unsure, please discuss with the Science Internships office or your supervisors.

The length of the Personal Reflection will vary depending on the format. As an indication, reflections should be at a minimum ~1000 words.

Typical formats include:

- **A personal reflection** on the experience. The focus on the reflection should be on topics such as what you learned, and what surprised you, what you were not prepared for, what advice would you give to future students, what could you do to support your next opportunity differently. Avoid merely describing what you did.
- **An opinion piece** describing a situation you encountered during your internship and providing a critical argument about the situation and what you have learned through your experience.
- **A work diary** a regular (e.g. weekly) diary about your journey through the internship. This could address points above, but also might serve as a way to construct a full reflection at the end - you'll be able to follow your thoughts along the way.
- **A work log or timesheet**, involving a detailed day-by-day log of activities that you've completed along the way. This might be supplemented by a final smaller reflection.
- **Selection Criteria statements**. Often in job applications, you will be required to put together a statement against selection criteria. These often take the STAR form: Situation, Task, Action, Result. Find a job ad in the area you would like to go for, and put together a paragraph against ~5-7 criteria in this format from the experience that you had on your internship.
- **A combination of any of the above** or any appropriate alternative that you discuss with the Science Internships office.

You can present this in any media format, including written report, video or audio, or any other format you believe appropriate to reflect on your experience. If you are in doubt, please discuss your ideas with the Science Internships office.