



Unit Outline (Higher Education)

Institute / School:	Institute of Innovation, Science & Sustainability
Unit Title:	Research Project
Unit ID:	SCCOR3001
Credit Points:	15.00
Prerequisite(s):	(Successful completion of two years full time equivalent of a science degree)
Co-requisite(s):	Nil
Exclusion(s):	(SCENV3903 and SCIGC3990)
ASCED:	019999

Description of the Unit:

This unit is designed for students enrolled in science programmes to extend individual and independent learning skills. Students will undertake a supervised research project involving research of a publishable standard which forms the basis of a final report presented at the end of the unit. The unit will explore current scientific problems in relevant fields of research. As part of the unit, students are trained to develop a project with defined objectives, collate, evaluate, critically interpret research data and communicate their results scientifically.

Grade Scheme: Graded (HD, D, C, P, MF, F, XF)

Work Experience:

No work experience

Placement Component: No

Supplementary Assessment: No

Supplementary assessment is not available to students who gain a fail in this Unit.

Course Level:

Level of Unit in Course	AQF Level of Course					
	5	6	7	8	9	10
Introductory	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Intermediate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Advanced	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Learning Outcomes:**Knowledge:**

- K1.** Demonstrate an in-depth knowledge of an appropriate subject and describe appropriate methods for data collection and analysis within this field
- K2.** Discuss potential ethical issues associated with scientific research

Skills:

- S1.** Examine and critique literature relevant to the needs and scope of the research project
- S2.** Develop problem solving skills through devising appropriate methodological approaches to address the research question
- S3.** Collect, collate, analyse and interpret research data
- S4.** Communicate results in oral and written form
- S5.** Demonstrate ability to participate in individual or group research projects (as required)
- S6.** Operate with a significant degree of independence, whilst maintaining efficient and meaningful dialogue with a project supervisor.

Application of knowledge and skills:

- A1.** Collect and scrutinise scientific research literature and develop an independent interpretation in order to establish the approaches and scope of the research project
- A2.** Decide on methodological approaches to obtain and collect data in an appropriate manner, and analyse this data to help understand scientific problems
- A3.** Evaluate and communicate research results in oral and written form, requiring critical analysis, synthesis and organization of knowledge and construction of a rational and lucid scientific argument
- A4.** Apply problem solving and knowledge of statistical methods to critically analyse data and communicate results using both written and oral approaches

Unit Content:

- The syllabus will cover the following topics
- The research project will involve an in-depth study in an area of interest, and will require the student to carry out an extensive literature review in the area related to the project
- Formulate a specific research problem with well-defined objectives
- Carry out research consistent with the defined objectives of the study
- Collate, evaluate and interpret research data
- Present a final report in an appropriate format summarising the aims, objectives, results, conclusions and recommendations of the project
- Oral presentation to a scientifically-literate audience of peers and staff summarising the main features of the project

FEDTASKS

Federation University Federation recognises that students require key transferable employability skills to prepare them for their future workplace and society. FEDTASKS (**T**ransferable **A**tttributes **S**kills and **K**nowledge) provide a targeted focus on five key transferable Attributes, Skills, and Knowledge that are embedded within curriculum, developed gradually towards successful measures and interlinked with cross-discipline and Co-operative Learning opportunities. *One or more FEDTASK, transferable Attributes, Skills or Knowledge must be evident in the specified learning outcomes and assessment for each FedUni Unit, and all must be directly assessed in each Course.*

FEDTASK attribute and descriptor		Development and acquisition of FEDTASKS in the Unit	
		Learning Outcomes (KSA)	Assessment task (AT#)
FEDTASK 1 Interpersonal	Students will demonstrate the ability to effectively communicate, inter-act and work with others both individually and in groups. Students will be required to display skills in-person and/or online in: <ul style="list-style-type: none"> Using effective verbal and non-verbal communication Listening for meaning and influencing via active listening Showing empathy for others Negotiating and demonstrating conflict resolution skills Working respectfully in cross-cultural and diverse teams. 	Not applicable	Not applicable
FEDTASK 2 Leadership	Students will demonstrate the ability to apply professional skills and behaviours in leading others. Students will be required to display skills in: <ul style="list-style-type: none"> Creating a collegial environment Showing self-awareness and the ability to self-reflect Inspiring and convincing others Making informed decisions Displaying initiative 	Not applicable	Not applicable
FEDTASK 3 Critical Thinking and Creativity	Students will demonstrate an ability to work in complexity and ambiguity using the imagination to create new ideas. Students will be required to display skills in: <ul style="list-style-type: none"> Reflecting critically Evaluating ideas, concepts and information Considering alternative perspectives to refine ideas Challenging conventional thinking to clarify concepts Forming creative solutions in problem solving. 	Not applicable	Not applicable
FEDTASK 4 Digital Literacy	Students will demonstrate the ability to work fluently across a range of tools, platforms and applications to achieve a range of tasks. Students will be required to display skills in: <ul style="list-style-type: none"> Finding, evaluating, managing, curating, organising and sharing digital information Collating, managing, accessing and using digital data securely Receiving and responding to messages in a range of digital media Contributing actively to digital teams and working groups Participating in and benefiting from digital learning opportunities. 	Not applicable	Not applicable

FEDTASK attribute and descriptor		Development and acquisition of FEDTASKS in the Unit	
		Learning Outcomes (KSA)	Assessment task (AT#)
FEDTASK 5 Sustainable and Ethical Mindset	Students will demonstrate the ability to consider and assess the consequences and impact of ideas and actions in enacting ethical and sustainable decisions. Students will be required to display skills in: <ul style="list-style-type: none"> • Making informed judgments that consider the impact of devising solutions in global economic environmental and societal contexts • Committing to social responsibility as a professional and a citizen • Evaluating ethical, socially responsible and/or sustainable challenges and generating and articulating responses • Embracing lifelong, life-wide and life-deep learning to be open to diverse others • Implementing required actions to foster sustainability in their professional and personal life. 	Not applicable	Not applicable

Learning Task and Assessment:

Learning Outcomes Assessed	Assessment Tasks	Assessment Type	Weighting
K1, K2	Completion of Research Integrity Training and Laboratory and Field Work Safety Training	Online quiz	satisfactory / unsatisfactory
K1, S1, S2, S4, S6, A1, A2, A3, A4	Project Proposal	Written document	15-20%
K1, K2, S1, S2, S3, S4, S5, S6, A1, A2, A3, A4	Presentation of research findings to a scientifically literate audience	Oral Presentation	15-20%
K1, K2, S1, S2, S3, S4, S5, S6, A1, A2, A3, A4	Completion of a scientific/ technical project report	Written Research Report	50-60%
S2, S3, S5, S6	Supervisor`s assessment: level of engagement with research project and demonstration of appropriate laboratory/field skills	Laboratory or field work professionalism	5-10%

Adopted Reference Style:

APA ()

Refer to the [library website](#) for more information

Fed Cite - [referencing tool](#)