

# Unit Outline (Higher Education)

<b>Institute / School:</b>	Institute of Health and Wellbeing
<b>Unit Title:</b>	Applied Exercise Science
<b>Unit ID:</b>	EXSCI3177
<b>Credit Points:</b>	15.00
<b>Prerequisite(s):</b>	(At least 240 credit points from ANY subject-area at any level)
<b>Co-requisite(s):</b>	Nil
<b>Exclusion(s):</b>	(EXSCI3174)
<b>ASCED:</b>	069903

## Description of the Unit:

The unit is designed for students enrolled in the exercise science program, to extend individual and independent learning skills. Students will undertake a supervised research project or literature review 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 or literature review with defined objectives, collate, evaluate, critically interpret experimental data using statistical analysis 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:** Yes

Where supplementary assessment is available a student must have failed overall in the Unit but gained a final mark of 45 per cent or above, has completed all major assessment tasks (including all sub-components where a task has multiple parts) as specified in the Unit Description and is not eligible for any other form of supplementary assessment.

**Course Level:**

Level of Unit in Course	AQF Level of Course					
	5	6	7	8	9	10
Introductory	■	■	■	■	■	■
Intermediate	■	■	■	■	■	■
Advanced	■	■	✓	■	■	■

### Learning Outcomes:

#### Knowledge:

- K1.** Critically appraise and demonstrate an in-depth knowledge of an appropriate topic area within the field of Exercise and Sport Science in the form of a literature review
- K2.** Describe and appraise appropriate methods for data collection and analysis within the field of Exercise and Sport Science
- K3.** Discuss potential ethical issues associated with scientific research

#### Skills:

- S1.** Demonstrate problem solving skills through devising appropriate methodological approaches to address the research question
- S2.** Collect, collate, analyse and interpret field and/or laboratory data
- S3.** Communicate results in oral and written form.
- S4.** Demonstrate ability to participate in individual or group research projects (as required).
- S5.** 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 organisation 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:

Topic may include: Identifying the research question Developing aims and objectives Conducting a literature review Writing a research proposal Qualitative, quantitative or mixed methods design approach Applying for ethics Collecting and analysing data Reporting findings - written and oral approaches

#### Learning Task and Assessment:

Learning Outcomes Assessed	Assessment Tasks	Assessment Type	Weighting
K1 - K3, S1, S3 - S5, A1 - A4	Demonstrate an in-depth knowledge of an exercise science related topic through a written proposal for a scientific study that includes a review of the relevant literature.	Project proposal	20 - 30%

Learning Outcomes Assessed	Assessment Tasks	Assessment Type	Weighting
K1 - K3, S1 - S5, A1 - A4	Describe, appraise and develop an appropriate methodology for data collection and analysis in Exercise Science.	Final Report	40 - 60%
K1 - K3, S1 - S5, A1 - A4	Discuss potential ethical issues associated with research. Interpret and describe project outcomes.	Oral Presentation	20 - 30%

**Adopted Reference Style:**

APA ( )

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

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