

HESC4501

Exercise Physiology Research Seminars

**Course Outline
Term 1, 2024**

**School of Health Sciences
Faculty of Medicine & Health**

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	effectiveness and productivity in a team environment and an individual learning scenario.	skills and an ability to work as a member and leader of a team, with respect for diversity and a high standard of ethical practice.	
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3. Strategies and approaches to learning

3.1 Learning and teaching activities

The learning and teaching philosophy underpinning this course is centred on student learning and aims to create an environment which interests and challenges students. The teaching is designed to be engaging and relevant to prepare students for future careers.

How the course relates to the Exercise Physiology profession

The information and ideas presented in this course will enable students to build critical thinking and good communication skills necessary for professionals. Good communication skills are necessary to build an effective relationship between the patient and the practitioners. Along with the knowledge base of techniques used in experimental research, an understanding of how research is published and ranked is a prerequisite to appreciate the quality of a piece of research. It is essential that a professional career has a solid understanding of research in the field of Exercise Sciences to appreciate the novel techniques and progress that has been made; enabling them to prescribe exercise programs backed by evidence that has been rigorously examined.

How the course relates to other courses in the Exercise Physiology program

Together with Research Projects HESC4551 and Research Internships HESC4561, HESC4571, this 4th year course builds upon the knowledge accumulated throughout the whole program. It uses previously understood fundamental concepts to build the necessary critical thinking towards professional independence. Although the primary source of information for this course is the lecture material, effective learning can be enhanced through self-directed use of other resources such as textbooks and Web based sources. Your practical classes will be directly related to the lectures and it is essential to prepare for practical classes before attendance. It is up to you to ensure you perform well in each part of the course; preparing for classes; completing assignments; studying for exams and seeking assistance to clarify your understanding.

3.2 Expectations of students

Students are reminded that UNSW recommends that a 6 units

4. Course schedule and structure

	Lecture 1	Lecture 2	Tutorial
Week 1	1: Course introduction; research methods	2: Fundamentals of measurement	1: Self-directed learning – ESSA position statement
Week 2	3: Framing a question/ study design	4: Randomisation, blinding and confounding	2: Looking for information/how to read a research article;
Week 3	5: Study quality, risk of bias and certainty of evidence	6: Statistics and interpreting outcomes	3: Designing a talk to get across scientific messages
Week 4	7: Ethics in research	8: Literature reviews	

5. Assessment

5.1 Assessment tasks

Assessment task	Length	Weight	Mark	Due date and time
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Assessment 1: Research

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RESULTS AND
FIGURES

Group poster presentation:

	Fail	Pass	Credit	Distinction	High distinction
BACKGROUND AND METHODS /10	Incomplete or unclear description of the study background and methods; lacks essential details	Some description of the study background and methods; lacks depth and thoroughness	Adequate description of study and methods; missing several key details	Good description of study background and methods; few key details missing	Excellent description of study background and methods; all key details described
STUDY QUALITY AND RISK OF BIAS /4	No appraisal of study quality and risk of bias	Limited appraisal of study quality and risk of bias	Adequate description of study quality and risk of bias but lacking several key details to enable replication; tools/methods used are mentioned but not explained	Good description of study quality and risk of bias, lacking only a few key details; tools/methods used are mentioned and explained	Excellent description of study quality and risk of bias, no key details missing; tools/methods used are mentioned and explained in detail
IMPLICATIONS FOR PRACTICE /6	No attempt to link study findings to clinical implications for Exercise Science or Exercise Physiology	Limited attempt to link study findings to clinical implications for Exercise Science or Exercise Physiology	Adequate attempt to link study findings to clinical implications for Exercise Science or Exercise Physiology, but limited consideration of study quality/risk of bias in doing so	Good attempt to link study findings to clinical implications for Exercise Science or Exercise Physiology, with some consideration of study quality/risk of bias in doing so	Excellent attempt to link study findings to clinical implications for Exercise Science or Exercise Physiology with good consideration of study quality/risk of bias in doing so
QUESTIONS /5	Responses demonstrated little or no understanding of study and methodological issues; Significant number of errors made in answers to questions.	Responses demonstrated some understanding of study and methodological issues; A number of major errors made in answers to questions.	Responses demonstrated understanding of study and methodological issues; Accurate answers to questions drawing from related literature.	Responses demonstrated clear understanding of study and methodological issues; Strongly argued and accurate answers to questions drawing from related literature.	All responses demonstrated clear understanding of study and methodological issues; Consistently strongly argued and accurate answers to questions drawing from related literature.
POSTER STYLE /10	Unattractive design; lacks creativity and visual appeal; messy layout; inconsistency in style elements	Basic design elements; limited creativity; somewhat visually appealing; some areas messy or unclear; basic consistency in style elements	Thoughtful design; moderate creativity; visually pleasing; neat presentation of content; good consistency in style elements	Engaging design; creative elements evident; visually appealing; well organised layout; cohesive style elements	Very engaging design; creative elements evident; visually appealing; very well organised layout; style elements contribute to cohesive and unified design

Peer assessment form:

	Fail	Pass	Credit	Distinction	High distinction
PERSONAL INSIGHT and ABILITY TO DRAW ON EXAMPLES	Very little or no detail given of abilities, Very little or no detail given of weaknesses, Very	Some detail given of abilities, Some detail given of weaknesses, Very little or no examples cited.	Lists own role and contribution made, attempt made to	Can Articulate own role	Can Articulate own role and

assessments or practical assessments

respect, responsibility and courage! At UNSW, this means that your work must be your own, and others' ideas should be appropriately acknowledged. If you don't follow these rules, plagiarism may be detected in your work.

Further information about academic integrity and plagiarism can be located at:

- x The Current Studentssite