



Australia's  
Global  
University

Faculty of Medicine  
School of Medical Sciences

# **HESC 4501**

## **EXERCISE PHYSIOLOGY RESEARCH SEMINARS**

COURSE OUTLINE

SEMESTER 2, 2017

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Please read this manual/outline in conjunction with the following pages on the [School of Medical Sciences website](#):

- [Advice for Students](#)
- [Learning Resources](#)

(or see "STUDENTS" tab at [medicallsciences.med.unsw.edu.au](http://medicallsciences.med.unsw.edu.au) )

## HESC 4501 Course Information

**Credit Points:** 6 UOC

### Course Prerequisites / Assumed Knowledge

MATH1041 – Statistics for Life & Social Sciences

### OBJECTIVES OF THE COURSE

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This main aim of this course is to introduce exercise physiology students to original scientific and clinical research. It provides training in critical interpretation of scientific and clinical research linked to the field of exercise science/physiology. This aims to provide students with the skills necessary to research (find), read understand and communicate clinical research to the general public with confidence thus improving the standard of their clinical practice.

### COURSE CO-ORDINATOR and LECTURERS

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Course Coordinator:

**Dr Chris Maloney (CM)**

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School of Medical Sciences Ph 9385 1362

Office: Room 327, Level 3, East Wing, Wallace Wurth

Students wishing to see the course coordinators should make an appointment *via* email as our offices are not readily accessible. We will organize to meet you in a convenient location elsewhere in the building.

Lecturers in this course:

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## **COURSE STRUCTURE and TEACHING STRATEGIES**

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Learning activities occur on the following days and times:

### **Lectures:**

There will be two one-hour lectures given in weeks 1,2,3,4,5 and 12 on Wednesdays 3-4pm and Thursdays 12-1pm. (see the timetable below)

### **Tutorials:**

These 2 hour sessions will be held on Fridays in weeks 1, 6 and 7

All students are expected to attend

### **Collaborative Learning Session (TLB):**

These 2 hour sessions\* will be held on Wednesday, Thursday and Fridays in weeks 2-4 & 8-12

(\* Once enrolled in one of the sessions, students cannot change.)

Students are expected to attend all scheduled activities for their full duration (2 hours of lectures per week and up to 4 hours of practical and collaborative learning sessions per week). Students are reminded that UNSW recommends that a 6 units-of-credit course should involve about 150 hours of study and learning activities. The formal learning activities are approximately 45 hours throughout the semester and students are expected (and strongly recommended) to do at least the same number of hours of additional study

### **Independent study:**

Alone or in a group, independent studies will be an essential component of the course, as you will be asked to retrieve publications from databases, synthesise and have critical reading on what you will present. You will also need to finalise the individual talk and the group work outside of course contact hours. This strategy is to foster your independence as an exercise scientist/physiologist to gather information to inform your practice facilitating an evidence-based approach.

## **APPROACH TO LEARNING AND TEACHING**

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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 in order 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 carer 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 HESC 4571), this third 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.

## **STUDENT LEARNING OUTCOMES**

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HESC4501 will develop those attributes that the Faculty of Medicine has identified as important for an Exercise Scientist/Physiologist Graduate to attain. These include; skills, qualities, understanding and attitudes that promote lifelong learning that students should acquire during their university experience.

### Graduate Attributes

- A. Research, inquiry and analytical thinking abilities
- B. The capability and motivation for intellectual development
- C. Ethical, social and professional understanding
- D. Effective communication
- E. Teamwork, collaborative and management skills
- F. Information Literacy – the skills to locate, evaluate and use relevant information.

At the end of the course you should be able to:

- Understand the scientific research process to facilitate the critical evaluation and communication of scientific evidence to translate it into clinical practice
- Be able to Identify significant advances made in a field, summarize and present these to the general public in both written and oral formats
- Critically appraise original research, including methodology, statistical results and ethical considerations to integrate this knowledge for inclusion in best practice and to further research in exercise science
- Develop interpersonal skills to participate effectively in a team work environment
- Critically self evaluate and reflect upon participation, output and effectiveness to produce positive results in a team environment

## **COURSE EVALUATION AND DEVELOPMENT**

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For course evaluation, feedback has been gathered at the completion of the course, using among other means, UNSW's Course and Teaching Evaluation and Improvement Process and myExperience. Student feedback is taken seriously, and continual improvements are made to the course based, in part, on such feedback.

Based on feedback received from previous years; this course has been moved from 4<sup>th</sup> year to 3<sup>rd</sup> year to avoid clashes with Practicum

This course has added practical sessions that scaffold the transition to a research centred approach to learning and provided essential skills required to enable an exercise scientist/physiologist to develop evidence-based practice.

## TEXTBOOKS AND OTHER RESOURCES

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These resources will take the form of text books, journal articles or web-based resources. If available, links to the electronic form of these resources will be put on the course Moodle page.

A good reference for this course is the following text:

Evidence-Based Practice in Exercise Science: *The six step approach*.

Willaim E Amonette, Kirk L English and William J Kraemer.

Human Kinetics, Lower Mitcham, SA Australia

See also [medalsciences.med.unsw.edu.au/students/undergraduate/learning-resources](http://medalsciences.med.unsw.edu.au/students/undergraduate/learning-resources)

## ASSESSMENT PROCEDURES

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### Summary of Assessments

	Weight	Due Date
<b>6 of the Tutorials will be assessed</b>		
Tutorial 1: Self directed and reflective Learning: ePortfolio and Career	<b>5%</b>	Week 1
Tutorial 2: Looking for Information/ How to read a research article	<b>5%</b>	Week 2
Tutorial 4: Dealing with being in the spotlight: PLANNING	<b>5%</b>	Week 4
Tutorial 5: Applied Medical Statistics:	<b>5%</b>	Week 6
Tutorial 9: Working with Excel	<b>5%</b>	Week 10
Tutorial 11: Use of Bibliography Software	<b>5%</b>	Week 12

### **PAPER REVIEW (individual task)**

Oral Presentation (PowerPoint Presentation)	<b>25%</b>	Weeks 6
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### **INNOVATION IN EXERCISE PHYSIOLOGY (group task)**

Oral Presentation (Talk 15%, Poster 5%)	<b>20%</b>	Week 11
Oral Presentation (peer within group assessment)	<b>10%</b>	Week 11
Online Content (Completed self-assessment form)	<b>10%</b>	Week 12

<b>ePortfolio</b>	<b>5%</b>	
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All assignments are to be submitted via the course Moodle Page.

**Penalties for late submission of assignments** – In cases where an extension has NOT been granted, the following penalties will apply:

1. For assignments submitted one day after the due date, **a penalty of 50%** of the maximum marks available for that assignment will be incurred.
2. Assignments received two or more days after the due date **will not be allocated a mark**, however, these assignments **must** still be submitted to pass the unit.

## GENERAL INFORMATION

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### Attendance Requirements

For details on the Policy on Class Attendance and Absence see [Advice for Students](#) and the [Policy on Class Attendance and Absence](#).

Guidelines on extra-curricular activities affecting attendance can be found on the School of Medical sciences Website. [Advice for Students – Special Consideration](#)

Attendance at practical classes is compulsory, and must be recorded in the class roll at the start of each class. Arrival more than 15 minutes after the start of the class will be recorded as non-attendance. It is your responsibility to ensure that the demonstrator records your attendance and no discussions will be entered into after the completion of the class. Satisfactory completion of the work set for each class is essential. It should be noted that non-attendance for other than documented medical or other serious reasons, or unsatisfactory performance, for more than 1 practical class during the session may result in an additional practical assessment exam or ineligibility to pass the course. Students who miss practical classes due to illness or for other reasons must submit a copy of medical certificates or other documentation to the course coordinator.

### Practical Classes

The practical class is an opportunity for students to develop graduate attribute C by behaving in an ethical, socially responsible and professional manner within the practical class.

Students must take due care with biological and hazardous material and make sure all equipment is left clean and functional. In the interests of safety, special attention should be paid to any precautionary measures recommended in the notes. If any accidents or incidents occur they should be reported immediately to the demonstrator in charge of the class who will record the incident and recommend what further action is required. For more details see [Advice for Students-Practical Classes](#)

### Special Consideration

Please see [UNSW-Special Consideration](#) and [Student Advice-Special Consideration](#)

If you unavoidably miss the progress exam, you must lodge an application with UNSW Student Central for special consideration. If your request for consideration is granted an alternative assessment will be organised which may take the form of a supplementary exam or increased weighting of the final exam.

See: [Student-Advice-Reviews and Appeals](#)

### Student Support Services

See: [Student Advice-Student support services](#).

### Academic Integrity and Plagiarism

The [UNSW Student Code](#) outlines the standard of conduct expected of students with respect to their academic integrity and plagiarism.

More details of what constitutes plagiarism can be found [here](#)

## **LECTURE and PRACTICAL OUTLINES**

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### **Lecture 1 (Dr Chris Maloney) Introduction Lecture/Course Structure/The Research Method**

Briefly introduce the rationale for the course, alignment within Ex Phys Degree, learning outcomes, assessment tasks. Cover the principals of “The research method” alignment with the philosophy of “Evidence based practice” for Ex Phys.

### **Lecture 2 (Dr Chris Maloney) Looking for Information/ How to read a research article**

Introduce the principles of searching for research articles, what are you looking for? How to read a paper, how to efficiently read a paper to get the main ideas.

### **Lecture 3 (A/Prof. Jeanette Thom) Framing a Research Question/ Study design**

How to appropriately ask a research question that is meaningful (refer to current clinical/scientific research literature) and answerable. How to then design a study to answer that question.

### **Lecture 4 NS Innovations guest lecturer IDEAS, Innovation & Intellectual property**

What is innovation? What is IP and how to realise the value of research. Taking Innovation to Market. Selling not only ideas, but also the value of an individual’s skill set (important for future career).

### **Lecture 5 (Dr Chris Maloney) Written and oral communication in science**

How to effectively communicate outcomes of clinical/scientific research using written forms (Abstracts, reviews, original articles) and oral presentations.

### **Lecture 6 (A/Prof. Jia Lin Yang) Applied Statistics**

Introduction to the important concepts in applied statistics that play a role in project design, data measurement and evaluation in research.

#### **Learning objectives:**

1. Describe aim, general procedure and content of a project design.
2. Understand basic statistical concepts associated with project design.
3. Describe data type, measurement and association with statistical method selection.
4. Select correct and relevant methods in evaluation of research questions.

### **Lecture 7 (Dr Chris Maloney) Ethics in Research**

Overview of the legislation for human and animal research. Writing a research proposal: the ethics application.

### **Lecture 8 (Dr Belinda Parmenter) Literature Reviews**

What are the different types of reviews: Systematic reviews (Meta analysis, Cochrane reviews etc.) Vs Narrative and descriptive reviews (opinion articles, comments).

## **Lecture 9 (A/Prof. Jeanette Thom) Population domains covered in exercise physiology**

An overview of the different research domains in which exercise physiologist research: Cancer, Kidney, Metabolic (obesity and Diabetes), Muscular skeletal, Healthy populations. Covering projects available in 4<sup>th</sup> year HESC4551/71.

## **Lecture 10 (A/Prof. Jeanette Thom) Adult Population studies**

Ex Phys staff show case on research in Adult populations. Gives students an exposure to our staff and their research.

## **Lecture 11 (Dr Carolyn Broderick) Paediatric Population studies**

Ex Phys staff show case on research in paediatric populations. Gives students an exposure to our staff and their research.

## **Overview of Tutorials**

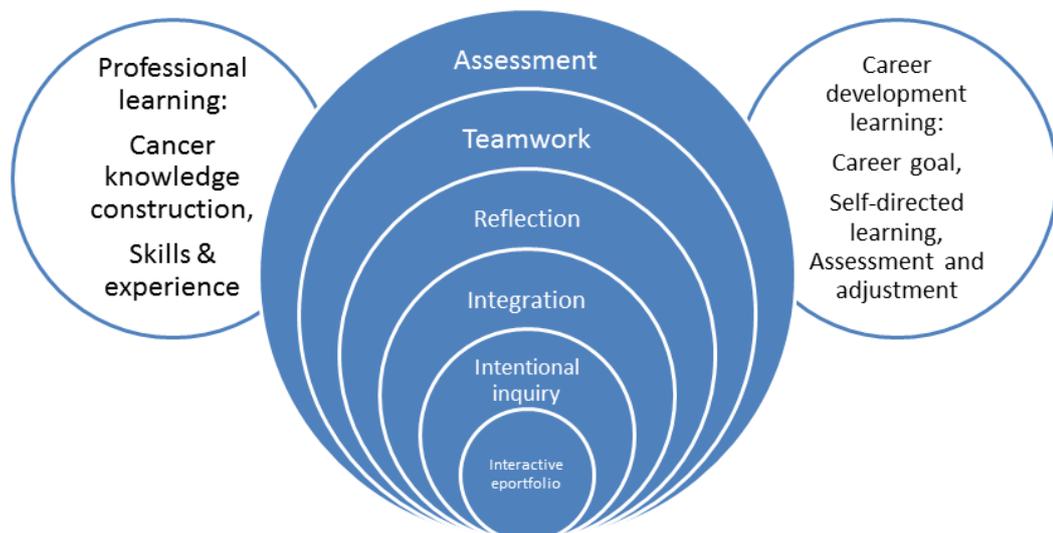
### **Tutorial 1 (Jia Lin Yang & Chris Maloney, whole class tutorial) Self directed and reflective Learning: ePortfolio and Career**

**Aim:** To provide theory and examples of the individual (student) ePortfolios and how we will assess them (See Marking Scheme in assessment tasks section below).

#### **Learning objectives:**

At the end of this session students will be able to

1. Understand the definition of student ePortfolio;
2. Know the functions of ePortfolio;
3. Establish, control, update, reflect and/or share their ePortfolio;
4. Use to present and reflect their learning within and across courses, as well as within and beyond the campus;
5. Use as resources for construct tailored cover letter & resume;
6. Use as place for writing research article analysis;
7. Submit personal ePortfolio for assessment.



**Figure 2. A model for ePortfolio enhances student professional and care development learning** (Yang, 2016. An interactive ePortfolio enhances student learning. *The AAEEBL ePortfolio Review (AePR)*, 1(1), 13-24. Retrieved from <https://aaeebl.site-ym.com/page/AEPRIssues>)

### **Tutorial 2 (5 Tutor groups) Looking for Information/ How to read a research article.**

Structured tutorial where students will search for an article of interest (to be presented in weeks 6 to10) they will then briefly read the article extracting and summarising the main ideals that the article contains, listing any strengths or weaknesses. Computer required.

### **Tutorial 3 (5 Tutor groups) Design a talk getting across scientific messages**

Structured tutorial where students will start designing their PowerPoint slide presentation that will be used in weeks 6 to10. Students will be expected to have a outline of each slide finalised by the end this session. Computer required.

### **Tutorial 4 (5 Tutor groups) Dealing with being in the spotlight: PLANNING.**

Students will plan in class and deliver a 3-minute talk on any subject they wish in front of the whole tutorial group. Students will be expected to Plan the talk so that the main points are well delivered so that the talk flows well and fills the allocated time.

### **Tutorial 5 (Jia Lin Yang & Chris Maloney whole class tutorial) Applied Medical Statistics: Overview of process to select appropriate statistical tests to apply**

Students will learn the most common statistical tests that can be used analyse medical science data why the tests are used and the meaning of the results obtained. Students will use e-STATS-CHOICE program to summarize data, and identify correct methods for correlation, association, comparison, and regression based on own aims and data types.

### **Tutorial 6 (Jia Lin Yang & Chris Maloney whole class tutorial) Statistics: Manipulating data sets.**

Students will learn how to use the computer program SPSS to perform statistical analysis based on own aims and data types.

### **Learning Objectives for Tutorials 5 and 6:**

At the completion of these classes you should be able to:

1. Formulate objectives in a statistical sense.
2. Discuss the design of a study.
3. Discuss data collection methods and data entry.
4. Discuss broad analysis guidelines with a demonstration.
5. Discuss interpretation of statistical output.

### **Tutorial 7 (5 Tutor groups) Working as a team, Innovation Concept design**

Students will devise the Innovation that they will present as a group. Students will firstly brain storm the ideas and discuss merits and faults of idea. Use of online research will allow students to consolidate their Idea

### **Tutorial 8 (5 Tutor groups) Constructing a poster and abstract**

Students will design their poster working as a group to complete the task.

### **Tutorial 9 (5 Tutor groups) Working with Excel**

Students will be given an excel data sheet that is to be analysed. Students will be taught how to organise data set to see trends and perform basic statistical tests.

### **Tutorial 10 (5 Tutor groups) Presentation Skills Feed Back**

Students will receive individual feedback on their paper presentation.

### **Tutorial 11 (5 Tutor groups) Use of Bibliography Software: Endnote and referencing.**

Students will be asked to search for a mixture of article types (reviews, journal articles, websites books) on a given topic they will then insert these into Endnote. Using endnote and work students will create a mock text with referencing and create a bibliography.

### **Course Timetable and Room allocation**

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<b>Class Type</b>	<b>Date</b>	<b>Weeks</b>	<b>Location</b>	<b>Size</b>
Lecture	Wed 3PM-4PM	1-5, 12	Mat ThD	80
	Thu 12PM-1PM	1-5, 12	Mat ThD	80
Tutorial	Fri 9AM-11AM	1, 6, 7	Wurth G06/07	72
TLB	Wed 9AM-11AM	2-4, 8-12	Wurth G16/17	16
	Wed 11AM-1PM	2-4, 8-12	Wurth G16/17	16
	Wed 1PM-3PM	2-4, 8-12	Wurth G16/17	16
	Thu 1PM-3PM	2-4, 8-12	Wurth G16/17	16
	Fri 11AM-1PM	2-4, 8-12	Wurth G16/17	16
Seminar	Wed 3PM-4PM	6-11	Lib 176A	20
	Wed 3PM-4PM	6-11	Lib 176B	20
	Thu 12PM-1PM	6-11	Lib 176A	20
	Thu 12PM-1PM	6-11	Lib 176B	20

**TIMETABLE**

	date	Lecture 1 (1hr) Wed 3-4pm	Lecture 2 (1hr) Thurs 12-1pm	Tutorial/Lab/Prac (2hr) see above for time and place
Week 1	24/7	Intro Lecture/ Course Structure / The research method (CM)	Looking for information How to read a paper (CM)	<b>1:</b> Self-directed and reflective Learning ePortfolio Plus Career and Professional Learning (JLY, CAM) Computing rooms Go6 Go7 1X80 Friday M
Week 2	31/7	Framing a question/ Study Design (JT)	<i>NS innovations IP selling research</i>	<b>2:</b> Search for a paper Read Paper. Extract important message. Summarize 5x16 Computer M
Week 3	7/8	Writing and Oral communication (CM)	Medical Statistics ( <i>JLY</i> )	<b>3:</b> Design a talk getting across scientific messages 5x16 Computer
Week 4	14/8	Ethics Knowing the Legislation writing a proposal (CM)	<i>Literature Reviews (BP)</i>	<b>4:</b> Dealing with being in the spotlight PLANNING. Give a talk (exposure to talking). 5x16 Computer M
Week 5	21/8	Population Domains covered in Exercise Physiology (JT)		
Week 6	28/8	Individ Talks 1 & 2 M	Individ Talks 3 & 4 M	<b>5:</b> Applied Medical Statistics Description selection of tests to apply (JLY) Computing rooms Go6 Go7 1X80 Friday M
Week 7	4/9	Individ Talks 5 & 6 M	Individ Talks 7 & 8 M	<b>6:</b> Stats Manipulate USING SPSS to analyse data sets (JLY) 1x80 Go6 Go7 Comp
Week 8	11/9	Individ Talks 9 & 10 M	Individ Talks 11 & 12 M	<b>7:</b> Working as a team, Innovation Concept design 5x16 Comp
Week 9	18/9	Individ Talks 13 & 14 M	Individ Talks 15 & 16 M	<b>8:</b> Constructing a poster and abstract 5x16 Computer
	25/9	Mid Term Break		
Week 10	2/10	Individ Talks 17 & 18 M	Individ Talks 19 & 20 M	<b>9:</b> Working with data Excel Comp 5x16 M Computer M
Week 11	9/10	Posters 1 and 2 M	Posters 3 and 4 M	<b>10:</b> Presentation skills Feed Back sessions for talks (Q and A) 1hr
Week 12	16/10	Adult Population studies (JT)	Paediatric Population Studies (CB)	<b>11:</b> Use of Bibliography software endnote, referencing Comp 5x16 M Computer M

## ASSESSMENT TASKS

### Assessment Task 1: Paper Review

Oral presentation (Weeks 6-10; Individual task)

**For the purpose of these seminars, you will select an original journal article (not a review article) related to the field of Exercise Science.**

You will present the publication to the class in the format of a **6 minute** oral presentation followed by **3 minutes** of discussion.

The tutor will mark the presentation according to the **Assessment criteria template** below.

**The PowerPoint presentation** to be used during your Oral is to be posted via Moodle **no later than Monday in week 6:**

#### Assessment criteria template:

	Unsatisfactory	Below average	Satisfactory	Good	Excellent
<b>BACKGROUND CONTENT AND CONCLUSIONS</b>  /6	Introduction out of scope with the topic. Cannot be understood by a non-expert audience.	Introduction lacks scope with the topic and has inadequate details. Most concepts and terminology not described to allow understanding by a non-expert audience.	Introduction lacks scope with the topic. Many concepts and terminology not described to allow understanding by a non-expert audience.	Introduction well in scope with the topic. Most concepts and terminology described to allow understanding by a non-expert audience.	Introduction very well in scope with the topic. All concepts and terminology described to allow understanding by a non-expert audience.
<b>FIGURES</b>  /4	Description of the figures lacks major details, or methodology not described.	Description of the figures is mostly clear. Major inconsistencies in experimental design. No dissociation between description and interpretation.	Descriptions of the figures to allow understanding by non-expert audience, but some details are lacking. Not always dissociation between description and interpretation.	Clear description of the figures to allow understanding by non-expert audience. Dissociation between description and interpretation.	Very clear description of the figures to allow understanding by non-expert audience. Clear dissociation between description and interpretation.
<b>STYLE</b>  /10	The font, colour graphics and slide layout used distracted from the presentation. Figures used not labelled with major errors. No logical structure to presentation. Delivery unclear or inaudible. Not confident with poor body language.	The font, colour graphics and slide layout used sometimes distracted from the presentation. Figures used and labelled with some errors. Lacking clear and logical structure throughout. Delivery mostly clear, and technical. Some major lapses in body language observed	The font, colour graphics and slide layout used sometimes distracted from the presentation. Figures used and labelled with some errors. Mostly clear and logical structure throughout. Delivery mostly clear, and technical. Some major lapses in body language observed	The font, colour graphics and slide layout used enhanced the presentation. Figures used and clearly labelled. Minor errors. Clear and logical structure throughout. Delivered clearly, well-paced, articulate and technical. Confident stance and body language. Enthusiastic.	The font, colour graphics and slide layout used greatly enhanced the presentation. Figures used and clearly labelled. No errors. Clear and logical structure throughout. Delivered clearly, well-paced, articulate and technical. Confident stance and body language. Enthusiastic and interesting.
<b>QUESTIONS</b>  /5	Responses demonstrated little or no understanding of complex technical and contextual issues. Significant number of errors made in answers to questions.	Responses demonstrated some understanding of complex technical and contextual issues. A number of major errors made in answers to questions.	Responses demonstrated understanding of complex technical and contextual issues. Accurate answers to questions drawing from related literature.	Responses demonstrated clear understanding of complex technical and contextual issues. Strongly argued and accurate answers to questions drawing from related literature.	All responses demonstrated clear understanding of complex technical and contextual issues. Consistently strongly argued and accurate answers to questions drawing from related literature.

# Oral Presentation Marking Scheme - HESC 4501

Student ..... Date .....  
 Examiner .....

**Total  
Mark**

<b>BACKGROUND CONTENT AND CONCLUSIONS</b>	<b>Max. Marks = 6</b>	<b>Unsatisfactory (mark = 0)</b>	<b>Below average (0.5)</b>	<b>Satisfactory (mark = 1.0)</b>	<b>Good (mark = 1.5)</b>	<b>Excellent (mark = 2.0)</b>	<b>Mark</b>
Clear description of topic, Aims/Hypothesis of paper explained	2						
Structure is logical & easy to follow, Able to be understood by a non expert audience	2						
Clear and Concise Conclusions	2						
<b>Figures</b>	<b>Max. Marks = 4</b>	<b>Unsatisfactory (mark = 0)</b>	<b>Below average (0.5)</b>	<b>Satisfactory (mark = 1.0)</b>	<b>Good (mark = 1.5)</b>	<b>Excellent (mark = 2.0)</b>	<b>Mark</b>
Figure described fully	2						
Described not interpretation	2						
<b>Style</b>	<b>Max. Marks = 10</b>	<b>Unsatisfactory (mark = 0)</b>	<b>Below average (0.5)</b>	<b>Satisfactory (mark = 1.0)</b>	<b>Good (mark = 1.5)</b>	<b>Excellent (mark = 2.0)</b>	<b>Mark</b>
Confident voice (not read)	2						
Professional, enthusiastic delivery	2						
Slides attractive	2						
Font size & colour easy to read	2						
Good use of pictures, diagrams & tables	2						
<b>Questions</b>	<b>Max. Marks = 5</b>	<b>Unsatisfactory (mark = 0)</b>	<b>Below average (0.75)</b>	<b>Satisfactory (mark = 1.5)</b>	<b>Good (mark = 2.0)</b>	<b>Excellent (mark = 2.5)</b>	<b>Mark</b>
Attempted to interpret & answer questions	2.5						
Understood concepts, strong argument, accurate answers	2.5						

Comments:

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## Assessment Task 2: Innovation in Exercise Physiology

Oral presentation (Weeks 11): Innovation in Exercise Physiology.

This assessment is a **group** assessment; you will be assigned to a group (*The number of students within one team will normally be no more than 4*).

As part of a team, You will be asked to create a tool, a protocol or a technique with an application to Exercise Science/Physiology.

Posters will be presented to the class in the format of a 10 minute presentation followed by 2 minutes discussion.

Students will provide a single mark out of 10 for each of their peers based on the contribution they perceive each to have made to the group's work

The tutor will mark the presentation according to the **Assessment criteria template** below.

**Assessment criteria template for the following:** Oral Presentation, and Oral Presentation (peer assessed) Online Content (one page description of the invention).

	Unsatisfactory	Below average	Satisfactory	Good	Excellent
<b>BACKGROUND OF INVENTION</b>	Very unclear or no description of the problem that the invention wants to solve.	Poor description of the problem that the invention wants to solve.	Moderately clear description of the problem that the invention wants to solve.	Clear description of the problem that the invention wants to solve.	Very clear description of the problem that the invention wants to solve.
<b>DESCRIPTION OF INVENTION</b>	Poor description of the invention and Lack of creativity and innovation.	Unclear description of the invention. Marginally creative and innovative.	Clear description of the invention Moderately creative and innovative.	Clear description of the invention using adequate communication tools. Creative and innovative.	Very clear description of the invention using adequate communication tools. Highly creative and innovative.
<b>QUESTIONS</b>	Significant number of errors made in answers to questions.	A number of major errors made in answers to questions.	Accurate answers to questions. Some minor errors.	Strongly argued and accurate answers to questions.	Consistently strongly argued and accurate answers to questions.

**Marking Template for Group Poster Presentation: Date .....**

**Students.....**

**Examiner .....**

<u><b>Group</b></u>	<u><b>Total Mark</b></u>
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<b>Background</b>	<b>Max Marks = 4</b>	<b>Unsatisfactory (mark = 0)</b>	<b>Below average (0.25)</b>	<b>Satisfactory (mark = 0.5)</b>	<b>Good (mark = 0.75)</b>	<b>Excellent (mark = 1.0)</b>	<b>Mark</b>
Adequate justification for invention. Describes the gap filled by this product?	1						
If for a disease its described, if healthy population reason for use	1						
Evidenced Review of Current Knowledge i.e Scientific Literature	1						
Able to be understood by a non expert	1						
<b>Description/Content</b>	<b>Max Marks = 6</b>	<b>Unsatisfactory (mark = 0)</b>	<b>Below average (0.25)</b>	<b>Satisfactory (mark = 0.5)</b>	<b>Good (mark = 0.75)</b>	<b>Excellent (mark = 1.0)</b>	<b>Mark</b>
How is this innovative	1						
A clear description of features	1						
Use of pictures, diagrams & tables	1						
Use of other patents acknowledged or Evidence of no other similar products/ patents	1						
Summary of strengths & weaknesses	1						
Structure is logical & easy to follow	1						
<b>Presentation Style</b>	<b>Max Marks = 5</b>	<b>Unsatisfactory (mark = 0)</b>	<b>Below average (0.75)</b>	<b>Satisfactory (mark = 1.5)</b>	<b>Good (mark = 2.0)</b>	<b>Excellent (mark = 2.5)</b>	<b>Mark</b>
Confident voice, audience engagement & timing (not too short or long)	2.5						
Ability to interpret & answer questions	2.5						
<b>Poster</b>	<b>Max Marks = 5</b>	<b>Unsatisfactory (mark = 0)</b>	<b>Below average (0.75)</b>	<b>Satisfactory (mark = 1.5)</b>	<b>Good (mark = 2.0)</b>	<b>Excellent (mark = 2.5)</b>	<b>Mark</b>
Layout attractive	2.5						
Font size & colour easy to read	2.5						

Comments:

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**Assessment criteria template for the following:** Online Content (Completed self-assessment form).

The completed form as a whole will be marked using the following criterion.

	Unsatisfactory	Below average	Satisfactory	Good	Excellent
<b>PERSONAL INSIGHT and ABILITY TO DRAW ON EXAMPLES</b>	Very little or no detail given of abilities, Very little or no detail given of weaknesses, Very little or no examples cited.	Some detail given of abilities, Some detail given of weaknesses, Very little or no examples cited.	Lists own role and contributions made, attempt made to discover weaknesses, a few examples cited	Can Articulate own role and contributions made, A number of examples cited, Examples demonstrate strengths, Weaknesses listed.	Can Articulate own role and contributions made, Many examples cited, Examples clearly demonstrate strengths and contribution to the team, Can Articulate weaknesses.
<b>DEMONSTRATES AN UNDERSTANDING OF TEAMWORK</b>	Seems focussed on own goals rather than enhancing the teams effort, no examples of teamwork cited	Mainly focussed on own goals rather than enhancing the teams effort, minimal effort made to link own goals with teams goals, no examples of teamwork cited	Seems to appreciate teamwork, Appears to note the importance of focussing on the TEAMS objectives. One or two examples cited	Seems to appreciate individual strengths and weaknesses can be compensated by teamwork, Appears to note the importance of focussing on the TEAM'S objectives, Takes initiative, a number of examples of teamwork cited	Appears to value multiple perspectives, Apparently seeks to resolve conflicts, Seems to appreciate individual strengths and weaknesses can be compensated by teamwork, Appears to note the importance of focussing on the TEAM'S objectives, Takes initiative. <b>Many</b> examples given that clearly show teamwork

**Marking Template Completed self-assessment form:**

Section	Unsatisfactory	Below average	Satisfactory	Good	Excellent
	Marks				
<b>Communication</b>	0	0.5	1	1.5	2
<b>Task Completion</b>	0	0.5	1	1.5	2
<b>Leadership</b>	0	0.5	1	1.5	2
<b>Team Work</b>	0	0.5	1	1.5	2
<b>Improving Self</b>	0	0.5	1	1.5	2

Marks will be given according to the Assessment Criterion table above and the following

In each section marks awarded as follows:

- A half mark for 1 statement i.e. "I communicated in a respectful way"
- 1 mark for 2 or more statements
- 1.5 marks for 2 or more statements plus a reflection on weakness
- 2 marks for 2 or more statements plus a reflection on strength/weakness and how to improve

The Poster to be presented is to be submitted via the course Moodle page on-line no later than **Monday in Week 11.**

The peer assessment of other students in your group is to be submitted via Moodle online **no later than Friday in week 12**

The self-assessment form below - A Reflection on Working in Groups (an electronic version will be available to fill in), is to be submitted online **no later than Friday in week 12**

## ePortfolio Assessment Criteria

	HD (4)	D (3)	Credit (2)	Pass (1)	Fail (0)
<b>Connections to experience</b> <i>Connects relevant experience and academic knowledge</i>	Meaningfully synthesises connections among experiences outside of the formal classroom (including life experiences and academic experiences such as internships and travel abroad) to deepen understanding of fields of study and to broaden own points of view.	Effectively selects and develops examples of life experiences, drawn from a variety of contexts (e.g. family life, artistic participation, civic involvement, work experience), to illuminate concepts/theories/frameworks of fields of study.	Compares life experiences and academic knowledge to infer differences, as well as similarities, and acknowledge perspectives other than own.	Identifies connections between life experiences and those academic texts and ideas perceived as similar and related to own interests.	Fail to Identify connections between life experiences and those academic texts and ideas perceived as similar and related to own interests.
<b>Connections to discipline</b> <i>Sees (makes) connections across disciplines, perspectives</i>	Independently creates wholes out of multiple parts (synthesises) or draws conclusions by combining examples, facts, or theories from more than one field of study or perspective.	Independently connects examples, facts, or theories from more than one field of study or perspective.	When prompted, connects examples, facts, or theories from more than one field of study or perspective.	When prompted, presents examples, facts, or theories from more than one field of study or perspective.	When prompted, presents examples, facts, or theories from ONLY one field of study or perspective.
<b>Transfer</b> <i>Adapts and applies skills, abilities, theories, or methodologies gained in one situation to new situations</i>	Adapts and applies, independently, skills, abilities, theories, or methodologies gained in one situation to new situations to solve difficult problems or explore complex issues in original ways.	Adapts and applies skills, abilities, theories, or methodologies gained in one situation to new situations to solve problems or explore issues.	Uses skills, abilities, theories, or methodologies gained in one situation in a new situation to contribute to understanding of problems or issues.	Uses, in a basic way, skills, abilities, theories, or methodologies gained in one situation in a new situation.	Fail to use, in a basic way, skills, abilities, theories, or methodologies gained in one situation in a new situation.
<b>Integrated Communication</b>	Fulfils the assignment(s) by choosing a format, language or graph (or other visual representation) in ways that enhance meaning, making clear the interdependence of language and meaning, thought and expression.	Fulfils the assignment(s) by choosing a format, language or graph (or other visual representation) to explicitly connect content and form, demonstrating awareness of purpose and audience.	Fulfils the assignment(s) by choosing a format, language or graph (or other visual representation) that connects in a basic way what is being communicated (content) with how it is said (form).	Fulfils the assignment(s) (i.e. to produce an essay, a poster, a video, a PowerPoint presentation, etc.) in an appropriate form.	Fail to fulfil the assignment(s) (i.e. to produce an essay, a poster, a video, a PowerPoint presentation, etc.) in an appropriate form.

<p><b>Reflection and Self-Assessment</b>  <i>Demonstrates a developing sense of self as a learner, building on prior experiences to respond to new and challenging contexts (may be evident in self-assessment, reflective, or creative work)</i></p>	<p>Envisions a future self (and possibly makes plans that build on past experiences) that have occurred across multiple and diverse contexts.</p>	<p>Evaluates changes in own learning over time, recognizing complex contextual factors (e.g., works with ambiguity and risk, deals with frustration, considers ethical frameworks).</p>	<p>Articulates strengths and challenges (within specific performances or events) to increase effectiveness in different contexts (through increased self-awareness).</p>	<p>Describes own performances with general descriptors of success and failure.</p>	<p>Fail to describe own performances with general descriptors of success and failure.</p>
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Adapted from AAC&U

### Self-Assessment Form - A Reflection on Working in Groups

Fill in the table and use it to self-reflect on **your** experiences while working as part of this team. Think about **your** strengths i.e. what you feel are your greatest attributes (I speak clearly, I am organised, I am inclusive, I help resolve conflicts, I am enthusiastic, I share the load, I cooperate, etc.....) and how they enhanced the team work (**GIVE EXAMPLES**: I emailed team members to keep them up to date, I collected journal articles, I had material ready so it could be included, I was a spokesperson for the team, I listened to the ideas of others). We all have weaknesses, as a learner and a team member it is beneficial to acknowledge them so that we can improve e.g. I am a person who has trouble starting large tasks, so initially I was late getting information to the group, I then made sure I did a little bit (something) each day and found I got more done. The form must be filled in using Times New Roman, 10 FONT, 1 page only. These instructions and the lines in the form can be removed to give you room to complete the form.

Reflect on <b>YOUR</b> Strengths and Weaknesses for each category. Cite examples (What did <b>you</b> do? (not your group) How were strengths applied?).	
<p><b>COMMUNICATION:</b> How did <b>you</b> communicate with members of your group and to others?</p>	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
<p><b>TASK COMPLETION:</b> How did <b>you</b> complete tasks for the group?</p>	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
<p><b>LEADERSHIP:</b> How did <b>you</b> display leadership?</p>	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
<p><b>TEAMWORK:</b> What was <b>your</b> role in the group, how did you display teamwork skills?</p>	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
<p><b>IMPROVING YOURSELF:</b> What teamwork skills did <b>you</b> learn/Improve? How can <b>you</b> continue to Improve</p>	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>