



THE UNIVERSITY OF NEW SOUTH WALES

Exercise Physiology Program

School of Medical Sciences

Faculty of Medicine

HESC1501

Introductory Exercise Science

Semester 1, 2015
Course Outline

Table of Contents

Staff Contact Details	2
Course Details	3
Course Description	3
Aims of the Course	3
Student Learning Outcomes	4
Graduate Attributes	4
Rationale for the inclusion of content and teaching approach	4
How the course relates to the Exercise Physiology Profession	4
Teaching strategies	4
Assessment	5
Summary of assessments	5
Assessment Task 1 – <i>Virtual labs and Feedback Online Quizzes</i>	5
Assessment Task 2 – <i>Synopsis Laboratory Report</i>	6
Assessment Task 3 – <i>Report on the Clinical Experience</i>	8
Assessment Task 4 – <i>End of Session Examination</i>	10
Submission of assessment tasks	10
Academic honesty and plagiarism	10
Course schedule	11
Resources for students	14
Course evaluation and development	14
Examination procedures and attendance requirements	15
Special consideration in the event of illness or misadventure	15

Staff Contact Details

Convenors:	Dr Andrew Keech	andrew.keech@unsw.edu.au
	School of Medical Sciences	
	Office: Rm 202, WW	
	Ms Nancy van Doorn AEP	n.vandoorn@unsw.edu.au
	School of Medical Sciences	
	Office: Rm 202, WW	
Lecturers:	Dr Ben Barry	ben.barry@unsw.edu.au
	School of Medical Sciences	
	Dr Carolyn Broderick	c.broderick@unsw.edu.au
	School of Medical Sciences	
	Assoc. Prof. Steve Boutcher	s.boutcher@unsw.edu.au
	School of Medical Sciences	
	Dr Maria Matuszek	m.matuszek@unsw.edu.au
	School of Medical Sciences	
	Dr John Booth	john.booth@unsw.edu.au
	School of Medical Sciences	
Guest Lecturers:	Mr Chris Tzarimas AEP	c.tzar@unsw.edu.au
	UNSW Medicine Lifestyle Clinic	
	Ms Kelly McLeod AEP	k.mcleod@unsw.edu.au
	UNSW Medicine Lifestyle Clinic	
	Mr Martin Bending AEP	MBending@australianunity.com.au
	Australian Unity Retirement Living Services	

**Demonstrators &
Clinical Tutors:**

Mr Matthew Jones AEP
Exercise Physiology PhD student

Ms Jessica Bellamy AEP
Exercise Physiology MSc student

Mr Andrew Saliba AEP
Exercise Physiology MSc student

Ms Gemma Whitley AEP
Public Health MSc student

Ms Abbey Van Capelle AEP
Exercise Physiology graduate

Technical Officer: **Mr Balu Daniel** d.balu@unsw.edu.au
School of Medical Sciences

Program Officer: **Ms Sue Cheng** sue.cheng@unsw.edu.au
School of Medical Sciences

Course details

Credit Points: 6 UOC

Course Description

This course presents an overview of the vocational activities within the allied health profession of Exercise Physiology. The sub-disciplines of exercise science (exercise physiology, biomechanics, motor control and exercise psychology) and related biomedical sciences are introduced through examining how the body responds to physical activity. This course includes a clinical practicum component in the university's Lifestyle Clinic.

Aims of the Course

1. To introduce the sub-disciplines of exercise science: functional anatomy/biomechanics, motor control, exercise physiology, and exercise psychology
2. To introduce the profession of Exercise Physiology, and issues relating to professional conduct
3. To encourage a basic understanding of the relationship between physical activity and health across the lifespan
4. To initiate learning of practical skills in exercise testing

Student Learning Outcomes

This term is used to describe what it is that you should be able to do, explain or understand if you have learned effectively in the course. For each lecture, tutorial, practical and assessment item, the expected learning outcomes will be explicitly stated. The assessment in the course will be matched as closely as possible to the stated learning outcomes - that is, the assessment will test how well you have achieved the learning outcomes of the course. The general learning outcomes for the course are as follows:

At the end of the course you should:

- Have an understanding of the different sub-disciplines of exercise science and an appreciation of the interdisciplinary nature of exercise physiology
- Have an understanding of the basic process of human growth and development and ageing, and how these changes impact physical function
- Describe the role and responsibilities of exercise physiologists in the provision of health care
- Have begun to develop basic competencies in assessing fitness, including the heart rate and blood pressure response during a submaximal exercise test, field tests of aerobic capacity and simple assessments of muscle strength
- Be able to communicate effectively and concisely through written reports of scientific experiments or clinical experiences

Graduate Attributes

- Understand the relationship between physical activity and health
- Engage in independent and reflective learning for the betterment of professional clinical practice, following an evidence-based approach
- Communicate effectively with patients, colleagues and other health professionals
- Display a respect for diversity and a high standard of ethical practice

Rationale for the inclusion of content and teaching approach

How the course relates to the Exercise Physiology profession – This course introduces the scientific basis of the exercise physiology profession. It also includes a series of clinical site visits, and lectures from accredited exercise physiologists, to provide an introductory overview of the activities of exercise physiologists in the workplace.

How the course relates to other courses in the Exercise Physiology program – Basic skills and knowledge introduced in this course will be further developed throughout the program, in particular in Exercise Programs and Behaviour (HESC1511), Biomechanics (BIOM2451), Exercise Physiology (HESC2501), Muscle and Motor Control (NEUR3101) and Physical Activity and Health (HESC3504). Interim courses in anatomy, physiology and biochemistry provide critical background on which to further your understanding.

Teaching strategies

Lectures – This approach is used to present relatively large amounts of information within a given time on specific topics throughout the course. PDF copies of the lecture notes will be available online (via Moodle) prior to or after each lecture, so you should be able to think about and develop an understanding of the lecture concepts as they are presented, rather than writing voluminous notes. However, there will be information and explanations presented in lectures in addition to those covered in the notes that you should take down if they help you to understand the material. The lecturer will also try to allow some time for interaction and activities in each lecture to provide you with an opportunity to clarify or reinforce the ideas that have been presented. You should take these opportunities to think about the information that has been presented and ask questions to enhance your understanding.

There are 22 lectures (each 1 hour) in this subject.

Q&A session – This session provides the opportunity to ask questions of final year students, academic staff and practicing AEPs. This is valuable in the early part of the program to help you confirm your interest in the field, to improve your understanding of progression through the program and to seek clarification about any areas of concern. The Q&A will be highly interactive and you are advised to come prepared with questions in mind. For example, you might like to ask questions about student experiences in the program, including such things as points of interest and tips for different stages in the program. You may also be interested to ask practicing AEPs about aspects of their professional work.

There is 1 Q&A session (1 hour), in Wk 13.

Laboratories – The purpose of the practical components of the course are twofold. The first purpose is to help you to develop technical skills that will be relevant in your professional career. It is essential that you obtain some hands-on experience with the major clinical and/or research techniques in exercise testing before you begin your clinical practicum. These skills will be rehearsed and developed further during subsequent courses in the program. The second purpose is to use experiments to demonstrate and reinforce key theoretical concepts that have been covered in lectures. The questions contained in the practical outlines will guide your learning in this respect.

There are 5 lab sessions (each 2 hours) in this subject.

Tutorial and Clinicals – This format provides a more informal learning environment than a lecture. Sessions will be structured to encourage your participation in activities and discussions designed to enhance your learning. You will benefit most if you do preparation prior to attending the session. *The tutorial / clinicals in this course are conducted in the Lifestyle Clinic to provide early exposure to a clinical environment and exercise physiology practice. It is imperative that you adhere to the Lifestyle Clinic Code of Conduct (including the strict dress code) whilst in that clinical setting.*

Note: the hours of attendance at the tutorial and clinical will contribute towards your accreditation as an Exercise Physiologist, gained on completion of the degree in accordance with the governing body - Exercise & Sport Science Australia (ESSA) - guidelines.

There are 4 clinical sessions and 1 tutorial (each 2 hours) in this subject.

Independent study – There is insufficient time in the lectures, labs, tutorial and clinicals for you to develop a deep understanding of the concepts covered in this course. In order for you to achieve the learning outcomes that will be assessed, you will need to revise the material presented in the course regularly. You will probably also need to do additional reading beyond the lecture materials in order to learn effectively. Relevant additional resources, including textbook chapters, will be cited in each lecture.

Assessments – These tasks have been chosen as tools to enhance and guide your learning as well as a way of measuring performance, and are therefore central teaching strategy in this course.

Assessment

Assessment of your learning in the course will be achieved through examinations and two written reports. The examination format tests your ability to recall and communicate knowledge of the subject matter without outside resources and in a time-constrained context. These requirements are similar to those encountered when dealing with a client or patient in a face-to-face setting, or when communicating with other health professionals or researchers. The examinations will be designed to determine how well you have achieved the general learning outcomes outlined above, and the specific learning outcomes outlined in each lecture/practical/tutorial. The written reports will assess your ability to access and interpret scientific literature in the field of exercise science, and to communicate concisely in a written report based on: 1) a laboratory experiment and 2) clinical site visits. You will be required to perform similar tasks in many professional settings within exercise physiology practice or medical research. For example, you will refer to the scientific literature to inform clinical exercise prescription or present a scientific case for using a particular training method.

Summary of Assessments	Weight	Due Date
<i>ASSESSMENT TASK 1 – VIRTUAL LABS, ONLINE QUIZ & CASE STUDY</i>	5% (1.25% each task)	Task 1: Monday 23 rd March (9am) Task 2: Monday 4 th May (9am) Task 3: Monday 11 th May (9am) Task 4: Monday 11 th May (9am)
<i>ASSESSMENT TASK 2 – SYNOPSIS LABORATORY REPORT</i>	15%	Monday 27 th April (9am)
<i>ASSESSMENT TASK 3 – CLINICAL EXPERIENCE REPORT</i>	30%	Monday 18 th May (9am)
<i>ASSESSMENT TASK 4 – END OF SESSION EXAMINATION</i>	Multiple choice: 25% Written: 25%	Exam period

Assessment Task 1 – Virtual Labs, Online Quizzes and Case Study

There will be 5 online activities throughout the course - 2 virtual tasks worth 1.25% each; 2 quizzes (1 compulsory worth 1.25%; the other voluntary that attracts no grade), and an online case study tutorial to be completed after your first clinical session at the Lifestyle Clinic (worth 1.25%). Marks for this component of course assessment are awarded simply for attempting each of the virtual labs and case study, which are designed to reinforce concepts and skills covered during the physical laboratory and clinical classes. You should complete these tasks independently. Of course, you may choose to do this as a group and not test your own individual understanding of the material, but you will get the same marks either way. The voluntary quiz will be available to complete online to provide you with feedback on your understanding of the course material – it won't be graded.

Assessment Task 2 – Synopsis Laboratory Report (from Laboratory 2)

You are to independently **summarise the purpose, methods, results and conclusions** from the laboratory conducted in week 6 (i.e. Lab no. 2 – Reaction time and motor learning). You are required to include with this summary a reference to a relevant journal article. Precise instructions for the format and content of this written report are included in the following pages. **THE FORMATTING INSTRUCTIONS MUST BE STRICTLY ADHERED TO.** Pay close attention to the formatting and marking criteria (below) when writing this assignment.

A key purpose of this assessment task is to provide students with feedback on written work early in the course and early in your university studies. You will have the opportunity to improve on the basis of this feedback in the subsequent assessment tasks.

Learning Outcomes for the *Synopsis Laboratory Report*

- To develop and refine the skills to concisely and clearly explain the purpose, methods, results and conclusions from a scientific laboratory class in the form of a written report
- To reference a scientific journal article of relevance to the experiment
- To develop your ability to communicate effectively in the format of a written report and to adhere to specified formatting guidelines

Synopsis Laboratory Report - Format

The synopsis laboratory report should have a title in Arial 11 point bold font that does not exceed 15 words.

surname, given name (z3333333)

The body of the report should be formatted in Arial 11 point normal font and must not exceed 400 words.

This section should be 1.5 line spaced. You may choose to use paragraphs or bold type sub-headings (e.g.

Methods), but this is not essential. The page margins should be 2.54 cm (1") on all sides (left, right, top,

bottom). The entire report should be presented on only 1 single-sided page. Introduce the aims and purpose

of the experiment in as few as one to three sentences. Please avoid a tendency of many university students

(and some scientists) to write things in overly grand terms. Whilst interesting, the experiments you are doing

in teaching laboratories are unlikely to yield "ground-breaking discoveries" or answer "age-old questions in

science". Also appreciate that scientific reports do not require excessively complicated writing. Certainly,

precise expression of detail is often important, but if details are expressed in easy to understand language

then critical details will be conveyed more clearly. In the methods, use words sparingly and stick to the

relevant details. For example, "the subject exercised on a stationary, friction-braked bike", as opposed to "the subject exercised on an exercise bike with white paint, a blue seat and pedals". Use the appropriate S.I.

units when reporting results and do not feel compelled to list every data value you collected; stick to the key

results. Your selection of the key results forms part of the assessment task. Explain any abbreviations upon

the first use and consider using abbreviations sparingly as these can become confusing for readers. The

reference to a scientific journal article should be written in the format below, including the heading (Arial 8

point normal font), and an article acknowledged in the text as follows: (Jones et al., 1990). You should

reference 1 or 2 articles, but do not reference articles with little relevance to the lab. Avoid directly quoting from articles. Plagiarism issues aside (it is acceptable to quote directly if the quoted passage is clearly identified as such, but not acceptable if there is a failure to acknowledge and identify the directly quoted prose), it is just not necessary in this task - our interest is in your writing. [366 words – do not feel it is necessary to exactly reach the 400 word limit]

References

Jones, D.A., Smith, B.C. (1990). The measurement of reaction time and muscle activity. *Journal of Reaction Time*. 12, 3: 330-333.

Synopsis Laboratory Report – Marking criteria

	High Distinction	Distinction	Credit	Pass	Fail	Mark
Accuracy of the synopsis <ul style="list-style-type: none"> • Purpose • Methods • Results • Conclusion 	Comprehensive overview of the lab experiment, reporting the key methods and findings, showing original/critical thought	Good overview of the lab experiment, reporting key methods and findings, evidence of some original/critical thought	Good overview of the lab experiment, reporting some key methods and findings, attempt at original/critical thought	Adequate overview of the lab experiment, with details of purpose methods, results and conclusions	Incomplete and inaccurate overview of the lab experiment. Lacking details for all or some of the purpose methods, results and conclusions	5
Inclusion of an appropriate reference to a scientific journal article	Appropriately formatted reference to 2 scientific journal articles with clear and specified relevance to the laboratory experiment for each cited article.	Appropriately formatted reference to 1 or 2 scientific journal articles with a clear and/or specified relevance to the laboratory experiment.	Appropriately formatted reference to 1 or 2 scientific journal articles of specified relevance to the laboratory experiment.	Appropriately formatted reference to a scientific journal article of broad relevance to the laboratory experiment.	Absent or inappropriate reference to a scientific journal article relating to the laboratory experiment.	5
Quality of the writing and presentation <ul style="list-style-type: none"> • Spelling • Grammar • Fluency / style • Adherence to correct format 	Clear, fluent and concise writing. No errors in written expression. Adheres to the prescribed format.	Clearly and concise writing. Nil or minimal errors in written expression. Adheres to the prescribed format.	Clearly written. Minimal errors in written expression. Adheres to the prescribed format.	Adequate clarity of writing. Some errors in written expression. Adheres to the prescribed format.	Poorly written. Frequent spelling or grammatical errors, <u>Not</u> adhering to the prescribed format.	5

Assessment Task 3 - Clinical Experience Report

After reading the prescribed material, and attending the tutorial and the first 2 clinical sessions conducted in the UNSW Medicine Lifestyle Clinic, you will be required to answer 5 specific tasks concerning activities observed and completed during these clinic visits. You are also required to locate and summarise a journal article that addresses the scientific basis of exercise prescription for a selected clinical condition (task 6). You are required to complete this task independently. Pay close attention to the marking criteria below when planning and writing this assignment.

Learning Outcomes for the Clinical Experience Report

- To develop your understanding of clinical activities in an exercise physiology clinic and professional conduct issues surrounding these activities.
- To develop and refine the skills to briefly and clearly summarise a scientific article of relevance to exercise science and clinical exercise physiology practice.
- To develop your ability to communicate effectively in the format of a written report.

Clinical Experience Report - Marking Criteria

	Task 1	Task 2	Task 3	Task 4	Task 5	Mark
Answers to Tasks 1-5 <ul style="list-style-type: none"> • Accurate • Comprehensive • Well written (bullet points acceptable) 	3 marks	3 marks	3 marks	3 marks	3 marks	15
Task 6 – Journal Article Report	High Distinction	Distinction	Credit	Pass	Fail	
Selection of an appropriate scientific journal article and identification of the relevance for exercise physiology clinical practice	Selection of an appropriate original research article. Clear and accurate description of the clinical relevance. Some critical thought.	Selection of an appropriate original research article. Clear and accurate description of the clinical relevance. Possibly critical thought	Selection of an appropriate article (original research article or review). Clear and accurate description of the clinical relevance.	Selection of an appropriate article (original research article or review). Some attempt to identify the clinical relevance.	Selection of an article inappropriate for the assignment (e.g. textbook chapter or not on a clinical condition). No attempt to identify clinical relevance.	5
Accuracy of the synopsis <ul style="list-style-type: none"> • Purpose /aims • Variables/ measures • Results and conclusions 	Comprehensive overview of the article, reporting the purpose, key measures, key results and the most pertinent conclusions.	Good overview of the article, reporting the purpose, measures, results and conclusions accurately and clearly. Some attention to the key details.	Good overview of the article, reporting the purpose, methods, results and conclusions accurately.	Adequate overview of the article, reporting the purpose, methods, results and conclusions with fair to reasonable accuracy.	Incomplete and inaccurate overview of the article. Lacking, or inaccurate, details for all or some of the purpose, methods, results and conclusions.	5
Quality of the writing and presentation <ul style="list-style-type: none"> • Spelling • Grammar • Fluency and style • Adherence to prescribed format 	Clear, fluent and concise writing. No errors in written expression. Adheres to the prescribed format.	Clearly and concise writing. Nil or minimal errors in written expression. Adheres to the prescribed format.	Clearly written. Minimal errors in written expression. Adheres to the prescribed format.	Adequate clarity of writing. Some errors in written expression. Adheres to the prescribed format.	Poorly written. Frequent spelling or grammatical errors, <u>Not</u> adhering to the prescribed format.	5

Clinical Experience Report - Details

Clinical sessions will be conducted at the UNSW Medicine Lifestyle Clinic and will involve patient case studies. It is therefore expected that students read the following documents (available on Moodle) PRIOR to commencing the tutorial at the Lifestyle Clinic:

1. The 'HESC 1501: Lifestyle Clinic Resource Manual';
2. The Lifestyle Clinic website (www.lifestyleclinic.net.au) to familiarise yourself with the clinical programs and services.
3. The Lifestyle Clinic Code of Conduct to become familiar with basic policies and procedures governing student conduct with the Clinic.

In the back of your Lifestyle Clinic Resource Manual, there is space to write down answers for each task as you go along. However, you will need to type up your Report using the template document which will be available online on Moodle for electronic submission of the completed answers to tasks 1 to 5, plus the report for task 6.

Tasks 1-5:

1. Observe the 'Medical Information Sheet' (i.e. patient's clinical data). List the client's condition and three (3) important pieces of information that the Exercise Physiologist has used to implement risk management procedures (to ensure the safety and welfare of the patient).
2. How was the patient referred? (e.g. self-referral or medical referral) List and explain the role of three (3) medical and allied-health professionals involved in the treatment of the patient.
3. An appropriate progression of exercise (volume and intensity) is important for both exercise adherence patient safety. Examine the patient records, and describe the progression of resistance training for that client in terms of volume, frequency and intensity of the exercises.
4. Select one resistance training exercise that was prescribed for your patient.
 - a. Perform a basic movement analysis using information in the Lifestyle Clinic Resource Manual and complete the table below.
 - b. Outline the major points to ensure correct lifting technique, and any precautionary advice (e.g. common incorrect techniques to avoid) exercise.
 - c. Explain the functional implications of the exercise (i.e. how does it translate to common activities of daily living)?

BASIC MOVEMENT ANALYSIS			
	JOINT 1	JOINT 2	JOINT 3
JOINT(S) INVOLVED IN ACTION			
MOVEMENT TERM			
MUSCLE(S) RECRUITED AT EACH JOINT			

5. Read the ESSA Code of Conduct. Using the patient case study in the Lifestyle Clinic, explain how the following criteria of the ESSA Code of Ethics are achieved:
 - (a) 'Best Practice';
 - (b) 'Client Care (and Confidentiality)'
 - (c) 'Personal and Professional Integrity (and Scope of Practice)'.

Task 6:

6. Using an appropriate search engine (e.g. PubMed / Google Scholar), find one scientific article from the literature that examines the clinical effects of resistance or aerobic exercise on a selected chronic disease (choose from: cancer, obesity, type 2 diabetes, cardiovascular disease, osteoporosis). [Download the article as a pdf and submit separately via TurnItIn on Moodle]. On one page (1.5 line spaced) describe:
 - a. The aim of the investigation
 - b. The variables being measured before and after the exercise intervention
 - c. The important results/outcomes of the study.
 - d. What conclusions can be drawn from this evidence and how can this inform clinical practice?

Assessment Task 4 – End of Session Examination

The purpose of the exam (worth 50% of the entire course) is to test your understanding of the concepts covered in the ENTIRE COURSE. The format will be multiple choice, short answer and long answer questions. The exam will be held during the end of session exam period.

Submission of Assessment Tasks

Assignments are to be submitted electronically through Turnitin via Moodle.

Penalties for late submission of assignments

In cases where an extension has NOT been granted, the following penalties will apply: For assignments submitted after **9:00am** on the due date, a penalty of 50% of the maximum marks available for that assignment will be incurred. A further 25% of the maximum possible allocated marks (i.e. a total of 75%) will be deducted from assignments which are two (2) days late. Assignments received more than two (2) days after the due date **will not be allocated a mark**, however, these assignments **must** still be submitted to pass the unit.

Academic honesty and plagiarism

Plagiarism is using the words or ideas of others and presenting them as your own. Plagiarism is a type of intellectual theft and is regarded by the university as academic misconduct. It can take many forms, from deliberate cheating to accidentally copying from a source without acknowledgement. The University has adopted an educative approach to plagiarism and has developed a range of resources to support students. **The Learning Centre can provide further information via student.unsw.edu.au/plagiarism.**

Course Schedule

HESC1501 semester 1, 2015

Week	Week starting	Lecture 1 Monday 11am-12pm WW LG03	Lecture 2 Wednesday 11am-12pm Civil Eng 101	Laboratory Group 1: Wed 2-4pm Group 2: Wed 4-6pm	Online Tasks <i>(completed online via Moodle by Monday 9am)</i>	Tutorial Groups A-F: Week 3 Groups G-L: Week 5 Lifestyle Clinic (38 Botany St)	Clinicals Grps 1-9: Wks 6,8,10,12 Grps 10-18: Wks 7,9,11,13 Lifestyle Clinic (38 Botany St)
1	2 Mar	Program Introduction and professional issues <i>(collect clinical uniforms)</i> RW, AK, NvD 2 Mar	No Class				
2	9 Mar	L1 – Anatomical basis of human movement I AK 9 Mar	L2 – Anatomical basis of human movement II NvD 11 Mar				
3	16 Mar	L3 – Mechanical basis of human movement I RW 16 Mar	L4 – Mechanical basis of human movement II RW 18 Mar		Online Task 1: Observing and assessing movements (1.25%)(complete by Mon 23 Mar, 9am)	Groups A to F A: Mon 2-4pm B: Tues 11-1pm C: Tues 2-4pm D: Wed 9-11am E: Thurs 10-12pm F: Thurs 2-4pm	
4	23 Mar	L5 – Determinants of muscle strength RW 23 Mar	L6 – Introduction to motor control and learning BB 25 Mar	Lab 1 – Basic biomechanical analysis of movement NvD, MJ, AS, JB <i>(Wallace Wurth 120)</i>			
5	30 Mar	L7 – Motor control and learning II: Skill Acquisition RW 30 Mar	L8 – Applications of Exercise Physiology to health CT 1 Apr			Groups G to L G: Mon 2-4pm H: Tues 11-1pm I: Tues 2-4pm J: Wed 9-11am K: Thurs 10-12pm L: Thurs 2-4pm	
Mid-session break (3rd – 12th April)							
6	13 Apr	L9 – Introduction to Exercise Physiology and the cardiovascular system AK 13 Apr	L10 – Basic concepts of exercise metabolism MM 15 Apr	Lab 2 – Reaction time and motor learning NvD, MJ, AS, JB <i>(Wallace Wurth 120)</i>			Groups 1 to 9 1: Mon 9-11am 2: Mon 2-4pm 3: Tues 11-1pm 4: Tues 2-4pm 5: Wed 9-11am 6: Thurs 10-12pm 7: Thurs 2-4pm 8: Fri 10-12pm 9: Fri 2-4pm

7	20 Apr	L11 – Physiological adaptations to exercise (acute responses) AK 20 Apr	L12 - Cardiovascular adaptations to exercise (chronic responses) MM 22 Apr		Online Task 2: Case Study tutorial regarding first clinical session (1.25%) <i>(complete by Mon 4 May; 9am)</i>		Groups 10 to 18 10: Mon 9-11am 11: Mon 2-4pm 12: Tues 11-1pm 13: Tues 2-4pm 14: Wed 9-11am 15: Thurs 10-12pm 16: Thurs 2-4pm 17: Fri 10-12pm 18: Fri 2-4pm
Synopsis laboratory report (15%) due via Turn-It-In on Moodle; Monday 27th April, 9am							
8	27 Apr	L13 – Physiological adaptations to exercise (acute responses) II AK 27 Apr	L14 – Motor control changes across the lifespan BB 29 April	Lab 3 – Measuring blood pressure and heart rate MM, MJ, AS, JB <i>(Wallace Wurth 120)</i>	Online Tasks 3 & 4: Exercise Physiology Virtual Labs Task 3: BP Task 4: HR (each task 1.25%) <i>(complete by Mon 11 May; 9am)</i>		Groups 1 to 9 1: Mon 9-11am 2: Mon 2-4pm 3: Tues 11-1pm 4: Tues 2-4pm 5: Wed 9-11am 6: Thurs 10-12pm 7: Thurs 2-4pm 8: Fri 10-12pm 9: Fri 2-4pm
9	4 May	L15 – Growing old and continuing to exercise MB 4 May	L16 – Growth and maturation CB 6 May				Groups 10 to 18 10: Mon 9-11am 11: Mon 2-4pm 12: Tues 11-1pm 13: Tues 2-4pm 14: Wed 9-11am 15: Thurs 10-12pm 16: Thurs 2-4pm 17: Fri 10-12pm 18: Fri 2-4pm
10	11 May	L17 – Exercise for children KM 11 May	L18 – Applied growth and development: Changes in sports performance with age and maturation CB 13 May	Lab 4 – Measuring CV response to exercise AK, MJ, AS, JB <i>(Wallace Wurth 120)</i>			Groups 1 to 9 1: Mon 9-11am 2: Mon 2-4pm 3: Tues 11-1pm 4: Tues 2-4pm 5: Wed 9-11am 6: Thurs 10-12pm 7: Thurs 2-4pm 8: Fri 10-12pm 9: Fri 2-4pm
Clinical Experience Report (30%) due via Turn-It-In on Moodle; Monday 18th May, 9am							
11	18 May	L19 – Introduction to Exercise Psychology SB 18 May	L20 – Exercise Psychology: barriers to exercise and healthy behaviours SB 20 May				Groups 10 to 18 10: Mon 9-11am 11: Mon 2-4pm 12: Tues 11-1pm 13: Tues 2-4pm 14: Wed 9-11am 15: Thurs 10-12pm 16: Thurs 2-4pm

							17: Fri 10-12pm 18: Fri 2-4pm
12	25 May	L21 – Exercise Psychology: motivational strategies SB 25 May	L22 - Barriers to exercise - clinical example NvD 27 May	Lab 5 – Aerobic exercise testing + body composition (BMI, skinfolds and girths) NvD, AS, JB, GW <i>(WW Clin Ex Phys lab)</i>			Groups 1 to 9 1: Mon 9-11am 2: Mon 2-4pm 3: Tues 11-1pm 4: Tues 2-4pm 5: Wed 9-11am 6: Thurs 10-12pm 7: Thurs 2-4pm 8: Fri 10-12pm 9: Fri 2-4pm
13	1 Jun	L23 – Working as an AEP: a Q&A session Assorted AEPs 1 Jun	Review AK, NvD 3 Jun				Groups 10 to 18 10: Mon 9-11am 11: Mon 2-4pm 12: Tues 11-1pm 13: Tues 2-4pm 14: Wed 9-11am 15: Thurs 10-12pm 16: Thurs 2-4pm 17: Fri 10-12pm 18: Fri 2-4pm

AK: Andrew Keech
MB: Martin Bending (AEP)
MJ: Matthew Jones (AEP)

NvD: Nancy van Doorn (AEP)
MM: Maria Matuszek
AS: Andrew Saliba (AEP)

RW: Rachel Ward
CT: Chris Tzarimas (AEP)
JB: Jess Bellamy (AEP)

BB: Ben Barry
KM: Kelly McLeod (AEP)
GW: Gemma Whitley (AEP)

CB: Carolyn Broderick
SB: Steve Boucher
AVC: Abbey Van Capelle (AEP)

COURSE RESOURCES

Moodle

Information about the course and a number of electronic study resources can be accessed via the UNSW Moodle system. Moodle is an internet-based set of Course Tools designed to enable online learning. You can access the system from the following site: <http://moodle.telt.unsw.edu.au>

You can use Moodle to download lecture notes, access your grades, find reference material in the course (such as this document), and communicate with the lecturer and your peers. Please see the lecturer if you would like more information to help you to make the most of this resource.

ECHO360

The ECHO360 system provides digital audio recordings of lectures that can be accessed via streaming media over the web. Lecture slides are embedded in these presentations.

UNSW Library

The University Library provides a range of services to assist students in understanding how to identify what information is required for assignments and projects; how to find the right information to support academic activities; and how to use the right information most effectively.

Homepage: <http://info.library.unsw.edu.au>

Reserve

Many items (books and journal articles) set as recommended reading for courses will be located in **Reserve**, which is on Level 2 of the Main Library. Some journal articles will be available in electronic format via links in the Resources section on Moodle.

Textbook

Abernethy, B., Kippers, V., Hanrahan, S., Pandy, M., McManus, A., & Mackinnon, L. (2013). *The Biophysical Foundations of Human Movement*. 3rd edition. Human Kinetics. ISBN: 1450431658

UNSW Library call no. 612.044/62 H

Relevant Textbook Chapters

In this course, the textbook chapters are followed reasonably closely.

<i>Intro Lecture</i>	<i>Chapter 1</i>
<i>Lectures 1 & 2</i>	<i>Chapters 3, 4, 5, 6 (Part II) (Functional Anatomy)</i>
<i>Lectures 3-5</i>	<i>Chapters 7-10 & 17 (Part III) (Biomechanics)</i>
<i>Lectures 6, 7 & 13</i>	<i>Chapters 15-18 (Part V) (Motor Control)</i>
<i>Lectures 8-12</i>	<i>Chapters 11-14 (Part IV) (Physiology)</i>
<i>Lectures 13- 18</i>	<i>Chapters 5, 9, 13, 17, 21 (Exercise across the lifespan)</i>
<i>Lectures 19, 21, 22</i>	<i>Chapters 19-22 (Part VI) (Exercise Psychology)</i>

Suggested Reference Books/Articles

Coombes, J. & Skinner, T. (2014). *ESSA's Student Manual for Health, Exercise and Sport Assessment*. Elsevier.

This text will be useful for lab sessions conducted throughout the Exercise Physiology degree, and is also available in the UNSW library.

Other articles will be included in notes from individual lecturers and/or in the Resources section on Moodle.

Course Evaluation and Development

HESC1501 (Introductory Exercise Science) is the first course in the *Bachelor of Exercise Physiology*. Over the last few years, we have responded to student feedback by:

- including clinical sessions, which involves visiting the UNSW Medicine Lifestyle Clinic to observe AEPs in action,
- including regular lectures from practicing exercise physiologists (AEPs),
- introducing a new Exercise Physiology Virtual Lab (via Moodle) to provide the opportunity to practice laboratory or clinical skills (e.g. taking blood pressure) outside of class time.

Each of these initiatives is designed to enrich learning in this course and to engage students in the program. The increased clinical content has been well received by students.

Student feedback is welcome and taken seriously. A Course and Teaching Evaluation and Improvement (CATEI) survey will be available in the final weeks of the course to formally gather student feedback.

Examination procedures and attendance requirements

Attendance at all labs, tutorials and clinicals will be recorded and attendance is expected at each session. Students who do not participate in these sessions for any reason other than medical or misadventure, will be marked absent and will be awarded a grade of FAIL for the entire course. If absent for medical reasons, a medical certificate must be lodged with the convenor (by email) within 7 days of the time period of the certificate's expiry. No consideration will be given after this time. Although lectures will be available on ECHO360, student participation is encouraged in the lectures and these are important to attend.

Health and Safety

Class activities must comply with the NSW Occupational Health & Safety Act 2000 and the Occupational Health & Safety (OHS) Regulations 2001. It is expected that students will conduct themselves in an appropriate and responsible manner in order not to breach OHS regulations and ensure a safe work/study environment for themselves and others. Further information on relevant OHS policies and expectations is outlined at: www.safety.unsw.edu.au

Deferred Exams

If you miss an exam for medical reasons you must supply adequate documentation (including a medical certificate). Your request for consideration will then be assessed and a deferred exam may be granted. You cannot assume you will be granted supplementary assessment. It is intended that supplementary exams for School of Medical Sciences courses in Semester 1, 2015 will be held in the week commencing Monday 5th July, 2015.

Special consideration in the event of illness or misadventure

If you believe that your performance in a course, either during session or in an examination, has been adversely affected by sickness, misadventure, or other circumstances beyond your control, you should notify the Registrar and ask for special consideration in the determination of your results. Such requests should be made as soon as practicable after the problem occurs. **Applications made more than three working days after the relevant assessment will not be accepted except in TRULY exceptional circumstances.**

When submitting a request for special consideration you should provide all possible supporting evidence (eg medical certificates) together with your student number and enrolment details. Consideration request forms are available from Student Central in the Chancellery or can be downloaded from the web page linked below.

Note that normally, if you miss an exam (without medical reasons) you will be given an absent fail. If you arrive late for an exam no time extension will be granted. It is your responsibility to check timetables and ensure that you arrive on time.

Students who apply for consideration to Student Central must also contact the Course Convenor immediately.

All applications for Special Consideration will be processed in accordance with UNSW policy (see: student.unsw.edu.au/special-consideration). If you miss an assessment and have applied for Special Consideration, this will be taken into account when your final grade is determined. You should note that marks derived from completed assessment tasks may be used as the primary basis for determining an overall mark. Where appropriate, supplementary examination may be offered, but only when warranted by the circumstances.

Student equity and diversity issues

Students requiring assistance are encouraged to discuss their needs with the course convenor prior to, or at the commencement of the course, or with the Equity Officer (Disability) in the Equity and Diversity Unit (EADU) (9385 4734). Further information for students with disabilities is available at www.studentequity.unsw.edu.au