



Faculty of Medicine  
School of Medical Sciences

# HESC1501

## Introductory Exercise Science

COURSE OUTLINE

SEMESTER 1, 2018

<b>CONTENTS</b>	<b>PAGE</b>
Staff Contact Details .....	3
Course details .....	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
How the course relates to other courses in the Exercise Physiology program.....	4
Course Resources .....	5
Textbook .....	5
Suggested Reference Books/Articles .....	5
Course Evaluation and Development .....	5
Teaching Strategies.....	5
Examination procedures and attendance requirements.....	6
Deferred Exams .....	6
Health and Safety .....	7
Assessment .....	7
Assessment Task 1 – Online Quiz, Case Study & Virtual Labs (5%) .....	8
Assessment Task 2 – Synopsis Laboratory Report (12.5%) .....	8
Assessment Task 3 – Mid-semester Examination (20%) .....	10
Assessment Task 4 – Clinical Experience Report (20%) .....	11
Assessment Task 5 – ePortfolio/OU Blog (2.5%) .....	13
Assessment Task 6 – End of Session Examination (40%).....	13
Course Schedule           HESC1501 semester 1, 2018 .....	15
Lecture 1 .....	15
Lecture 2 .....	15
Laboratory .....	15
Online Tasks & e-portfolio.....	15
Tutorial .....	15
Clinicals .....	15

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

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

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

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## Course details

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**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 profession of Exercise Physiology, and issues relating to professional conduct
2. To introduce the sub-disciplines of exercise science: functional anatomy/biomechanics, motor control, exercise physiology, and exercise psychology
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**

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### **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.

## Course Resources

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See also [Learning Resources](#) on the SoMS website

### 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 4-5</i>	<i>Chapters 3, 4, 5, 6 (Part II) (Functional Anatomy)</i>
<i>Lectures 6-8</i>	<i>Chapters 7-10 &amp; 17 (Part III) (Biomechanics)</i>
<i>Lectures 9-10</i>	<i>Chapters 15-18 (Part V) (Motor Control)</i>
<i>Lectures 12-16</i>	<i>Chapters 11-14 (Part IV) (Physiology)</i>
<i>Lectures 18-20</i>	<i>Chapters 5, 9, 13, 17, 21 (Exercise across the lifespan)</i>
<i>Lectures 21-23</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. It is 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 [myExperience](#) survey will be available in the final weeks of the course to formally gather student feedback.

## Teaching Strategies

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**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).

**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.

## **Examination procedures and attendance requirements**

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Attendance at all labs, tutorials and clinicals is compulsory 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 Lecture Recording<sup>+</sup>, student participation is encouraged in the lectures and these are important to attend.

### **Deferred Exams**

If you miss an exam for medical or misadventure 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. The deferred exam may include a significant oral element.

### **Special consideration in the event of illness or misadventure**

See also: [Advice for Students](#). Note that normally, if you miss an exam (without adequate reason) 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](http://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.

## Health and Safety

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Class activities must comply with the NSW *Work Health and Safety Act 2011*, the *Work Health and Safety Regulation 2017*, and other relevant legislation and industry standards. It is expected that students will conduct themselves in an appropriate and responsible manner in order not to breach HS regulations and ensure a safe work/study environment for themselves and others. Further information on relevant HS policies and expectations is outlined at: [www.safety.unsw.edu.au](http://www.safety.unsw.edu.au)

## Assessment

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Assessment of your learning in the course will be achieved through examinations, online tasks 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.

### 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 **5:00pm** 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 at least 48 hours (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.

Summary of Assessments	Weight	Date
ASSESSMENT TASK 1 – ONLINE QUIZ, CASE STUDY & VIRTUAL LABS	5% (1.25% each task)	Task 1: Monday 9 <sup>th</sup> April (5pm) Task 2: Monday 30 <sup>th</sup> April (5pm) Task 3: Monday 7 <sup>th</sup> May (5pm) Task 4: Monday 7 <sup>th</sup> May (5pm)
ASSESSMENT TASK 2 – SYNOPSIS LABORATORY REPORT	12.5%	Friday 27 <sup>th</sup> April (5pm)
ASSESSMENT TASK 3 – MID-SEMESTER EXAMINATION	Total: 20%	Tuesday 17 <sup>th</sup> April 1pm-2pm (during Lecture time)
ASSESSMENT TASK 4 – CLINICAL EXPERIENCE REPORT	20%	Monday 21 <sup>st</sup> May (5pm)
ASSESSMENT TASK 5 – ePORTFOLIO	2.5% (1.25% each task)	Reflection 1 & 2: Fri 1 <sup>st</sup> June (5pm)
ASSESSMENT TASK 6 – END OF SESSION EXAMINATION	Total: 40% (Multiple choice: 20% Short-answer: 20%)	Exam period

### Assessment Task 1 – Online Quiz, Case Study & Virtual Labs (5%)

There will be 4 online activities: 2 virtual tasks, a quiz and an online case study tutorial. Completing each online activity will earn 1.25% of the course grade, for a total of 5% for completing all tasks. Marks are awarded simply for attempting each task. The online activities are designed to reinforce concepts and skills covered during the physical laboratory and clinical classes. You should complete these tasks independently. A voluntary online quiz will also be available to complete at the end of semester to help you in preparation for the final exam.

### Assessment Task 2 – Synopsis Laboratory Report (12.5%)

You are to independently **summarise the purpose, methods, results and conclusions** from the laboratory conducted in week 6 (i.e. Lab 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. 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 – Required Format*

**The synopsis laboratory report should have a title (15 words max).**

The body of the report must not exceed 400 words. Use bold type sub-headings (e.g. **Methods**) to clearly indicate your purpose, methods, results and conclusions sections (~100 words each section).

This will be your first attempt at scientific writing. You will write-up the study conducted in Lab 2 as an Abstract. You will be exposed to reading scientific writing in the tutorial and clinical sessions. Read many, many exercise-related scientific articles in preparation for this task – reading good articles, and seeing how an Abstract should look like, is a key to success in this task.

Aim for a clear, concise and focused writing style. Please avoid being overly verbose - writing things in overly grand terms. 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.

Introduce the aims and purpose of the experiment. Set the context for your reader – why you did the study and what you expected to find (hypothesis).

In the methods, summarise the key procedures you completed. Be concise and stick to the relevant details. For example, “the subject exercised on a stationary, friction-braked bike”, as opposed to “the subject exercised on a bike”.

Your selection of the key results is important. Describe the key data clearly to your reader. You can show a table or figure if you feel it will help. Use the appropriate units when reporting results and do not feel compelled to list every data value you collected; stick to the key results.

Finish by outlining the key findings to your reader. Relate your findings to those detailed in a similar published study (reference) – were they similar or very different findings, and theorise why (critical analysis). The scientific journal article needs to be acknowledged in the text of your conclusion section e.g. (Jones & Smith, 2015) and with the full citation detailed in the Reference section at the end of your report (see below). You need to reference only 1 article, but search widely (PubMed, Google Scholar etc.) to find one with clear, direct relevance to the lab. Avoid directly quoting from the article – paraphrasing is appropriate when detailing their findings. Our interest is seeing your writing quality, so plagiarism is unacceptable.

[384 words]

### **References**

Jones, D.A., Smith, B.C. (2015). The measurement of reaction time and muscle activity. *Journal of Reaction Time*. 12, 3: 330-333.

**Table 1: Marking criteria for Synopsis Lab Report HESC1501 (12.5%)**

Assignment Marking Criteria	Absent	Developing (Not Yet Competent)	Competent	Good	Advanced
	0%	25%	50%	75%	100%
<p><b>Content (7 marks)</b></p> <p><b>Introduction</b></p> <ul style="list-style-type: none"> <li>Outline the key concepts being studied, and state the aim of the lab.</li> </ul> <p><b>Method</b></p> <ul style="list-style-type: none"> <li>Outline the procedures used in the lab (paraphrasing the lab notes).</li> </ul> <p><b>Results</b></p> <ul style="list-style-type: none"> <li>Summarise the key data.</li> </ul> <p><b>Discussion</b></p> <ul style="list-style-type: none"> <li>State the key findings from the data.</li> </ul> <p><b>Conclusion</b></p> <ul style="list-style-type: none"> <li>Final statement summarising the study and the major finding(s).</li> </ul>	Unable to provide an overview of the lab experiment.	Inadequate or incomplete overview of the lab experiment, with some key information missing.	Adequate overview of the lab experiment, with key information outlined.	Good overview of the lab experiment, with key information outlined and some attempt at critical thought.	Comprehensive overview of the lab experiment, with key information outlined and includes excellent critical thought.
<p><b>Writing quality and presentation (3.5 marks)</b></p> <ul style="list-style-type: none"> <li>Writing fluency and style (clear, concise and focused).</li> <li>Language (spelling / grammar / punctuation)</li> <li>Adherence to the prescribed format.</li> </ul>	Unable to provide intelligible writing.	Inadequate overall writing quality, overall presentation, or attention-to-detail. Inadequate clarity of writing. Frequent language errors. Formatting errors.	Adequate overall writing quality, overall presentation and attention-to-detail. Clearly written. Minor language errors. Adheres to the prescribed format.	Good overall writing quality, overall presentation and attention-to-detail. Clear and concise writing. Nil or minimal language errors. Adheres to the prescribed format.	Advanced-level overall writing quality, overall presentation and attention-to-detail. Clear, concise and focused writing. No language errors. Adheres to the prescribed format.
<p><b>Referencing (2 marks)</b></p> <ul style="list-style-type: none"> <li>Relevance of the article to the lab experiment.</li> <li>Appropriate Reference section (APA format) and referencing of statement in the body of the report.</li> </ul>	No article referenced.	Referenced article has only vague relevance to the lab experiment. Inadequate referencing, either within text or in the Reference section.	Referenced article has some relevance to the lab experiment. Appropriate referencing within text and in the Reference section, or with only a minor error.	Referenced article has reasonable relevance to the lab experiment. Appropriate referencing within text and in the Reference section.	Referenced article has clear, specified relevance to the lab experiment. Completely appropriate and correct referencing, both within text and in Reference section.

### Assessment Task 3 – Mid-semester Examination (20%)

The purpose of the exam is to test your understanding of the concepts covered up to the end of week 6 (content drawn from Lecture 2 to Lecture 10, and the first 2 labs and the tutorial). The format will be multiple choice and short answer questions. The exam will be held during a lecture period (see the Course Schedule). It will be 50 minutes in length.

## Assessment Task 4 – Clinical Experience Report (20%)

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 complete 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 - Details

Clinical sessions will be primarily 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](http://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 Case Study (Lifestyle Clinic):

You were assigned a case study (A, B or C).

#### 1. The Patient

Detail the client's medical condition (e.g. duration; severity; other interventions e.g. medications etc.). Describe in your own words what this disorder is and how it affects the patient.

List three (3) medical and allied-health professionals involved (or could possibly be involved in the future) in the treatment of the patient. Explain their role (or possible role) in helping this client.

#### 2. The Initial Assessment

Describe some of the key data from the Initial Assessment – what were the main findings?

#### 3. The Exercise Training Programme

Describe how all this information influenced the Exercise Physiologist in the design of the patient's first exercise training session (e.g. choice of exercises – aerobic or resistance or both; key programming details such as number of exercises; intensity; volume).

Describe the progression of training over the weeks/months of training (i.e. how did the Exercise Physiologist gradually change the exercise training sessions to ensure patient progression – what variables were altered and why? Give examples).

Why do you think exercise progression in a training programme is important?

#### 4. Movement Analysis

Select and analyse one resistance training exercise that your client was prescribed (multi-joint exercise only)

- a. Perform a basic movement analysis using information in the Lifestyle Clinic Experience Resource Manual and complete the table below.

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

- b. Outline the major points to ensure correct lifting technique, and any precautionary advice (e.g. common incorrect techniques to avoid).
- c. Explain the functional benefits of the exercise (i.e. how could it translate to common activities of daily living)?

### 5. Professional Considerations

Read the ESSA Code of Conduct. With regard to the patient case study in the Lifestyle Clinic, explain how the following criteria of the ESSA Code of Ethics are adhered to by the AEP and the Lifestyle Clinic in general:

- (a) 'Best Practice';
- (b) 'Client Care (and Confidentiality)'
- (c) 'Personal and Professional Integrity (and Scope of Practice)'.

### Task 6 – Journal Article Review

Using an appropriate search engine (e.g. PubMed / Google Scholar), find one scientific article from the literature that examines the clinical effects of aerobic or resistance exercise training (e.g. weeks or months of training) on a selected chronic disease (choose only from: cardiovascular disease, cancer, obesity, type 2 diabetes, high blood pressure - hypertension, osteoporosis).

*[Download the article as a pdf and submit separately via TurnItIn on Moodle].*

In 400 words (max), summarise the entire study. This must include (with clear heading for each section):

- a. Background
  - Describe what was already known/not known about the effect of exercise training on that disorder
  - Aim of the study
- b. Method:
  - Participants (e.g. How many took part? Characteristics e.g. age, gender, disease status? Control (non-exercise) or comparison group?)
  - Study design (e.g. describe the exercise training protocol)
  - Assessments (what key outcomes were measured before and after the exercise training?)
- c. Results
  - Describe the key data (e.g. body fat decreased by 8% etc.)
- d. Conclusions
  - Describe the important outcomes of the study.
  - What conclusions can be drawn from this evidence?
  - What other research questions do you think now need to be explored?

## Assessment Task 5 – ePortfolio/OU Blog (2.5%)

**ePortfolio** – The ePortfolio is part of your course assessment and encourages you to reflect on different aspects of your learning using a blog. The OU blog is located within the HESC1501 Moodle site. Late in the semester you will be asked to make two (2) entries into the blog by answering a prompt question. Your responses should be ~300 words each. This blog will be a regular feature in your degree – many courses will ask you to reflect on your learning within that course – and the blog can be used after your degree to demonstrate your professional progression.

You will also copy your blog entry into a TurnItIn submission also on Moodle. The entries will be assessed for level of insight. The marking criteria are below:

**Table 2: Marking criteria for ePortfolio blog entries (1.25% each).**

Assignment Marking Criteria	Absent	Developing (Not Yet Competent)	Competent	Good	Advanced
	0%	25%	50%	75%	100%
<p><b>Reflection 1:</b> Reflect on your observation of EP/Patient interaction during your time at the Lifestyle clinic</p> <p>300 words (1.25%)</p>	No response submitted or prompt question was not addressed.	Superficial discussion about the task: Explanation lacks detail or provides limited evidence of skills learning/development.	Satisfactory discussion about the task: Provides a descriptive narrative to explain skills learning/development.	Good discussion about the task: Provides a detailed descriptive explanation of skills learning/development, including reference to one or more pieces of evidence from personal and professional values.	Comprehensive discussion about the task: Provides explanation and critical evaluation of skills learning/development, including reference to one or more pieces of evidence from personal and professional values.
<p><b>Reflection 2:</b> How will you take what you have learned in this course beyond this year?</p> <p>300 words (1.25%)</p>	No response submitted or prompt question was not addressed.	Superficial reflection: Basic or superficial reflection describing development of content knowledge, discipline-specific or transferable skills to future opportunities, with no example provided.	Satisfactory degree of reflection: Surface/superficial reflection linking content knowledge, discipline-specific or transferable skills to future opportunities, with one example provided as support.	Good degree of reflection: detailed response linking content knowledge, discipline-specific and/or transferable skills to future opportunities, with two or more relevant examples broadly describing future application.	High degree of reflection: detailed response linking content knowledge, discipline-specific and/or transferable skills to future opportunities, with two or more relevant examples directly linked to specific course outcomes with relevant future application.

## Assessment Task 6 – End of Session Examination (40%)

The purpose of the exam 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.

**Table 3: Marking criteria for Clinical Experience Report (20%)**

Assignment Marking Criteria	Weighting (marks)	Absent or Developing	Competent	Advanced		
		0 marks	1 mark	2 marks		
Task 1 The Patient	2	Incorrect answers Inadequate detail Poorly written	Mostly accurate answers Good detail provided Mostly well written (some minor errors)	Accurate answers Comprehensive & concise detail Well written		
Task 2 The Initial Assessment	2					
Task 3 The Exercise Training Programme	2					
Task 4 Movement Analysis	2					
Task 5 Professional Considerations	2					
Assignment Marking Criteria	Weighting (marks)	Absent	Developing (Not Yet Competent)	Competent	Good	Advanced
		0 mark	1 mark	2 marks	3 marks	4 marks
Task 6: Article Selection	2 marks	Selection of an article inappropriate for the assignment (e.g. textbook chapter or not on a clinical condition).	Article is a review, outdated, or poor-quality study, does not add support to evidence based practice.	Selection of a recent, good quality, appropriate article (original research article).		
Task 6: Summary <ul style="list-style-type: none"> <li>• Purpose /aims</li> <li>• Method</li> <li>• Results</li> <li>• Conclusions</li> </ul>	4 marks	Incomplete and inaccurate overview of the article. Lacking, or inaccurate, details for all or some of the purpose methods, results and conclusions.	Basic overview of the article, reporting the purpose, methods, results and conclusions with fair to reasonable accuracy.	Good overview of the article, reporting the purpose, methods, results and conclusions accurately.	Good overview of the article, reporting the purpose, measures, results and conclusions accurately and clearly.	Comprehensive overview of the article, reporting the purpose, key measures, key results and the most pertinent conclusions.
Quality of the writing and presentation <ul style="list-style-type: none"> <li>• Spelling</li> <li>• Grammar</li> <li>• Fluency and style</li> <li>• Adherence to prescribed format</li> </ul>	4 marks	Poorly written. Frequent spelling or grammatical errors, Not adhering to the prescribed format.	Some errors in written expression. Adheres to the prescribed format.	Clearly written. Minimal 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.	Clear, fluent and concise writing. No errors in written expression. Adheres to the prescribed format.

## Course Schedule

## HESC1501 semester 1, 2018

Week	Week starting	Lecture 1 Tuesday 1pm-2pm Colombo C	Lecture 2 Tuesday 2pm-3pm Colombo C	Laboratory Group 1: Wed 9-11am Group 2: Wed 11-1pm Group 3: Wed 1-3pm Wallace Wurth 120	Online Tasks & e-portfolio <i>(completed online via Moodle)</i>	Tutorial Groups A, B, C in Week 3; Groups D, E, F in Week 5 CSEP	Clinicals Groups 1-7: Weeks 6,8,10,12 Groups 8-14: Weeks 7,9,11,13  Weeks 6-9: CSEP Weeks 10-13: Lifestyle Clinic
1	26 Feb	<b>No Class</b>	<b>No Class</b>				
2	5 Mar	L1 – Program Introduction and professional issues <b>RW, AK 6 Mar</b>	L2 – Our profession: Exercise Physiology <b>CT</b>				
3	12 Mar	L3 – Being an AEP in clinical practice <b>CT 13 Mar</b>	L4 – Human movement: Anatomical basis I <b>AK</b>			Groups A to C A: Wed 2-4pm B: Thurs 9-11am C: Thurs 11-1pm <b>AC, RM</b>	
4	19 Mar	L5 – Human movement: Anatomical basis II <b>AK 20 Mar</b>	L6 – Human movement: Mechanical basis I <b>RW</b>	Lab 1 – Measuring and assessing movement <b>MM, LH, AC</b>	Online Task 1: Observing and assessing movement (1.25%) <i>(complete by Mon 9 Apr, 5pm)</i>		
5	26 Mar	L7 – Human movement: Mechanical basis II <b>RW 27 Mar</b>	L8 – Human movement: Determinants of strength <b>RW</b>			Groups D to F D: Wed 2-4pm E: Thurs 9-11am F: Thurs 11-1pm <b>AC, RM</b>	
<b>Mid-session break (29<sup>th</sup> Mar – 8<sup>th</sup> April)</b>							
6	9 Apr	L9 – Motor control and learning: introduction <b>NK 10 Apr</b>	L10 – Motor control and learning: skill acquisition <b>RW</b>	Lab 2 – Reaction time and motor learning <b>MM, LH, RM</b>			Groups 1 to 7 1: Mon 9-11am 2: Mon 2-4pm 3: Tues 9-11am 4: Tues 11-1pm 5: Thurs 9-11am 6: Thurs 11-1pm 7: Thurs 2-4pm
7	16 Apr	L11 – Mid-semester Exam (20%) <b>17 Apr</b>	L12 - Exercise Physiology: intro to the cardiovascular system <b>AK</b>		Online Task 2: Case Study tutorial (1.25%) <i>(complete by Mon 30 Apr; 5pm)</i>		Groups 8 to 15 8: Mon 9-11am 9: Mon 2-4pm 10: Tues 9-11am 11: Tues 11-1pm 12: Wed 9-11am 13: Thurs 9-11am 14: Thurs 11-1pm 15: Thurs 2-4pm
<b>Synopsis laboratory report (12.5%) due <u>via Turn-It-In on Moodle</u>; Friday 27<sup>th</sup> April, 5pm</b>							

Week	Week starting	Lecture 1 Tuesday 1pm-2pm Colombo C	Lecture 2 Tuesday 2pm-3pm Colombo C	Laboratory	Online Tasks & e-portfolio <i>(completed online via Moodle)</i>	Tutorial Groups A, B, C in Week 3; Groups D, E, F in Week 5 CSEP	Clinicals Groups 1-7: Weeks 6,8,10,12 Groups 8-14: Weeks 7,9,11,13 Weeks 6-9: CSEP Weeks 10-13: Lifestyle Clinic
8	23 Apr	L13 – Exercise Physiology: introduction to exercise metabolism <b>MM 24 Apr</b>	L14 – Exercise Physiology: cardiovascular assessment <b>AK</b>	<b>(No Lab – Anzac Day public holiday)</b>	<b>Online Tasks 3 &amp; 4</b> Exercise Physiology Virtual Labs Task 3: Rest BP Task 4: Exercise BP (each task 1.25%) <b>(complete by Mon 7 May; 5pm)</b>		<b>Groups 1 to 7</b> 1: Mon 9-11am 2: Mon 2-4pm 3: Tues 9-11am 4: Tues 11-1pm 5: Thurs 9-11am 6: Thurs 11-1pm 7: Thurs 2-4pm
9	30 Apr	L15 – Exercise Physiology: adaptations to exercise (acute responses) <b>AK 1 May</b>	L16 – Exercise Physiology: adaptations to exercise (chronic responses) <b>MM</b>	Lab 3 – Measuring blood pressure and heart rate <b>MM, LH, GM</b>			<b>Groups 8 to 15</b> 8: Mon 9-11am 9: Mon 2-4pm 10: Tues 9-11am 11: Tues 11-1pm 12: Wed 9-11am 13: Thurs 9-11am 14: Thurs 11-1pm 15: Thurs 2-4pm
10	7 May	L17 – Working as an AEP: a Q&A session <b>Assorted AEPs 8 May</b>	L18 – Exercise across the lifespan: motor control changes <b>NK</b>	Lab 4 – Measuring cardiovascular response to exercise <b>AK, LH, GM</b>			<b>Groups 1 to 7</b> 1: Mon 9-11am 2: Mon 2-4pm 3: Tues 9-11am 4: Tues 11-1pm 5: Thurs 9-11am 6: Thurs 11-1pm 7: Thurs 2-4pm
<b>Clinical Experience Report (20%) due via Turn-It-In on Moodle; Monday 21<sup>st</sup> May, 5pm</b>							
11	14 May	L19 – Exercise in childhood: growth and maturation <b>CB 16 May</b>	L20 – Exercise in older age <b>MB</b>				<b>Groups 8 to 15</b> 8: Mon 9-11am 9: Mon 2-4pm 10: Tues 9-11am 11: Tues 11-1pm 12: Wed 9-11am 13: Thurs 9-11am 14: Thurs 11-1pm 15: Thurs 2-4pm
12	21 May	L21 – Exercise Psychology: introduction <b>22 May</b>	L22 - Exercise Psychology: barriers to exercise and healthy behaviours	Lab 5 – Client interaction and OSCE preparation <b>MM, LH, GM</b>			<b>Groups 1 to 7</b> 1: Mon 9-11am 2: Mon 2-4pm 3: Tues 9-11am 4: Tues 11-1pm 5: Thurs 9-11am 6: Thurs 11-1pm 7: Thurs 2-4pm
13	28 May	L23 – Exercise Psychology: motivational strategies <b>29 May</b>	L24 – <b>Review</b> <b>AK</b>		<b>ePortfolio Blog</b> Reflection 1& 2 (each task 1.25%) <b>(complete by Fri 1 Jun; 5pm)</b>		<b>Groups 8 to 15</b> 8: Mon 9-11am 9: Mon 2-4pm 10: Tues 9-11am 11: Tues 11-1pm 12: Wed 9-11am 13: Thurs 9-11am 14: Thurs 11-1pm 15: Thurs 2-4pm

AK: Andrew Keech  
CT: Chris Tzarimas (AEP)  
AC: Andrew Chen (AEP)

RW: Rachel Ward  
NK: Natalie Kwai (AEP)  
RM: Rob Morey (AEP)

CB: Carolyn Broderick  
LH: Lauren Ha (AEP)  
LM: Lauren Marcos (AEP)

MB: Martin Bending (AEP)  
GM: Grace McKeon (AEP)

MM: Maria Matuszek  
AR: Adrian Ram (AEP)