



Faculty of Medicine  
School of Medical Sciences

Department of Exercise Physiology

**HESC3504**

**Physical Activity and Health**

COURSE OUTLINE

SEMESTER 1, 2017

## Table of Contents

Staff Contact Details.....	3
Course details.....	3
Credit Points.....	3
Course Description.....	3
Aims of the Course.....	3
Student Learning Outcomes.....	4
Graduate Attributes.....	5
Rationale for the inclusion of content and teaching approach.....	5
How the course relates to the Exercise Physiology profession.....	5
How the course relates to other courses in the Exercise Physiology program.....	5
Teaching strategies.....	5
Assessments.....	6
Assessment Task 1: Lifestyle Change Project (40%).....	6
Assessment Task 2: Behaviour Change Assignment (20%).....	8
Assessment Task 3: Metabolic Syndrome Smart Sparrow Case Study (5%).....	8
Assessment Task 4: Final Exam (35%).....	8
Submission of Assessment Tasks.....	9
HESC 3504 Course Schedule.....	10
Resources for students.....	11
Computing Facilities.....	11
Recommended Textbooks.....	11
Suggested Readings.....	11
Course Evaluation and Development.....	12
Health and Safety.....	12
Examination Procedures and Attendance Requirements.....	12
Deferred Exams.....	12
Appendix: Marking Criteria for Lifestyle Change Project (40%).....	13

Please read this course 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))

## Staff Contact Details

---

Convenor:	Dr Belinda Parmenter <b>School of Medical Sciences</b> Office: Room 205 Level 2 West Wing Wallace Wurth Building Office Hrs: By appointment	<a href="mailto:b.parmenter@unsw.edu.au">b.parmenter@unsw.edu.au</a> Ph: 9385 8313
Guest Lecturers:	A/Prof Lenny Vartanian <b>School of Psychology</b>	<a href="mailto:l.vartanian@unsw.edu.au">l.vartanian@unsw.edu.au</a>
	Dr David Simar Dr Chris Maloney Dr John Booth <b>School of Medical Sciences</b>	<a href="mailto:d.simar@unsw.edu.au">d.simar@unsw.edu.au</a> <a href="mailto:c.maloney@unsw.edu.au">c.maloney@unsw.edu.au</a> <a href="mailto:j.booth@unsw.edu.au">j.booth@unsw.edu.au</a>
	Assoc. Prof. Susan Thompson <b>School of the Built Environment</b>	<a href="mailto:s.thompson@unsw.edu.au">s.thompson@unsw.edu.au</a>
Demonstrators:	Mr Alexander Engel (AEP) Mr Michael Wewege (AEP)	<a href="mailto:alexander.engel@unsw.edu.au">alexander.engel@unsw.edu.au</a> <a href="mailto:m.wewege@unsw.edu.au">m.wewege@unsw.edu.au</a>
Technical Officer:	Mr Balu Daniel	<a href="mailto:d.balu@unsw.edu.au">d.balu@unsw.edu.au</a>
Program Officer:	MESO	<a href="mailto:exphys.med@unsw.edu.au">exphys.med@unsw.edu.au</a>

## Course details

---

**Credit Points:** 6 UOC

### Course Prerequisites / Assumed Knowledge

HESC2501 Exercise Physiology  
HESC1511 Exercise Programs & Behaviour  
PSYC1011 Psychology 1B

### Course Description

The focus of this course is on the effects of exercise on apparently healthy populations across the lifespan. Psychological aspects of exercise, including the application of behaviour change/self-management strategies, comprise a significant component of this course. The literature addressing the impact of physical activity on risk reduction and the prevention of disease will be discussed in detail through examining the mechanisms by which exercise alters metabolic, vascular, immune, muscular and cognitive function, both chronically and acutely. Health-based screening and intervention techniques (including basic nutrition assessments) will be applied with students undertaking a supervised lifestyle change project.

### Aims of the Course

On completion of this subject, students will be able to:

1. Discuss key models explaining why people do (or do not) exercise and how it affects health;
2. Describe the effects of regular physical activity on a variety of physical and psychological health variables;
3. Demonstrate an understanding of the need for primary prevention in the health care model;
4. Apply this understanding of primary prevention in designing and implementing a four week lifestyle change program (including addressing diet, exercise, physical activity and sedentary behaviour) to reduce/improve cardiovascular risk in an apparently healthy adult.

## Student Learning Outcomes

On completion of this subject students should be able to:

1. Identify risk factors associated with sedentary lifestyles and metabolic dysfunction:
  - a. Describe the broad structure of the health system in Australia.
  - b. Describe in detail prevention programs at the public health, primary, secondary and tertiary levels.
  - c. Identify agencies, including funding agencies, involved in the promotion of physical activity, and identify potential partners to assist with this promotion.
  - d. Describe, and provide examples of the potential impact of public policy on promoting physical activity and reducing sedentary behaviour at the population level.
  - e. Identify populations at risk of insufficient physical activity or sedentary behaviour, and assess population characteristics and needs, including the social determinants of health, to inform development of appropriate interventions
  - f. Understand population-level recommendations and guidelines for optimising physical activity and reducing sedentary behaviour throughout the lifespan.
  - g. Understand population and community-level interventions to increase physical activity levels and reduce sedentary behaviour.
  - h. Discuss the appropriate use (including expected outcomes), strengths and weaknesses of individual and population-level interventions to increase physical activity and reduce sedentary behaviour.
  - i. Identify risk factors associated with sedentary lifestyles and metabolic dysfunction and explain the role of sedentary behaviour and physical activity in the aetiology, prevention and management of lifestyle-related chronic diseases namely obesity, metabolic syndrome and cardiovascular disease.
  - j. Outline fundamental behaviour change principles and theories, and apply them to improving client exercise compliance and lifestyle choices.
2. Conduct a range of health assessment and screening tests:
  - a. Conduct a range of health assessment and screening tests for low to moderate cardiovascular risk individuals;
  - b. Identify the need for guidance or further information from an appropriate health professional, and recognise when medical supervision is required before or during an assessment and when to cease a test in a low-moderate cardiovascular risk adult.
  - c. Select, develop and conduct appropriate protocols for safe and effective assessments, including instructing the correct use of equipment to a low-moderate cardiovascular risk adult.
  - d. Record, analyse and interpret information from assessments and convey the results, including the accuracy and limitations of the assessments, through relevant verbal and/or written communication with the client or involved professional.
3. Demonstrate a basic knowledge of dietary assessment and a healthy food intake:
  - a. Demonstrate a basic knowledge of dietary assessment and a healthy food intake and provide dietary recommendations to an apparently healthy adult based on an individual dietary assessment.
4. Design and implement a supervised lifestyle change program for a healthy adult:
  - a. Relate the benefits and risks of physical activity and apply best-practice principles to design and implement a supervised lifestyle change program (including recommending appropriate levels of physical activity) for an apparently healthy and/or moderate cardiovascular disease risk adult;
  - b. Record, analyse and interpret information from post program assessments and convey the results, including the accuracy and limitations of the choice of assessments and exercise program, through relevant verbal and/or written communication with the client and involved professional.

HESC3504 will develop the following graduate attributes. These include skills, qualities, understanding and attitudes that promote lifelong learning that students should acquire during their university experience.

### **Graduate Attributes**

1. Understand the relationship between physical activity, sedentary behaviour and health, and the role increased cardiovascular risk factors (overweight/obesity, metabolic syndrome, dyslipidaemias) play in developing cardiovascular disease.
2. Understand and describe basic population interventions designed to increase physical activity and reduce sedentary behaviour and in conjunction with the lifestyle change program, design and implement an intervention to increase physical activity and reduce sedentary behaviour.
3. Apply knowledge of pathophysiological bases in an understanding of common treatments, interventions and the management of an apparently healthy or low-moderate cardiovascular risk adult.
4. Interpret and use referral information to conduct screening and assessments of an apparently healthy or low-moderate cardiovascular risk adult for safe design and delivery of a lifestyle change program that uses basic diet and exercise for the primary prevention of cardiovascular disease.
5. Design and implement/deliver a safe and effective exercise, health and wellness intervention to affect behaviour change and increase exercise and functional capacity in an apparently healthy or low-moderate cardiovascular risk adult.
6. Consider clinical, scientific and ethical parameters in demonstrating practitioner readiness to practice as an Accredited Exercise Physiologist when working with an apparently healthy or low-moderate cardiovascular risk adult.
7. Communicate effectively with patients, colleagues and other health professionals.
8. 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 examines the positive changes induced by regular exercise and how to develop appropriate lifestyle change programs for apparently healthy adults. It is important to realize that lifestyle change is not just about physical activity but encompasses a holistic approach to healthy behaviours: reduced sedentary behaviours, good nutrition, sleep patterns, stress management and alcohol and tobacco use. As well, students study the psychology of exercise and the interactions between physical activity and psychological health.

**How the course relates to other courses in the Exercise Physiology program** – The course builds on the information gained in Introductory Exercise Science (HESC1501), Exercise Programs and Behaviour (HESC1511), Exercise Physiology (HESC2501) and Psychology (PSYC1001 and PSYC1011). Concepts gained in courses such as anatomy, human physiology, and biomechanics, contribute to learning in this course.

### **Teaching strategies**

**Lectures** – Lectures will provide you with the concepts and theory essential for understanding how regular physical activity impacts on health. In the lectures the aetiology of lifestyle diseases will be outlined and a description of the effects of exercise on risk factors will be given. Lectures will examine the current research regarding exercise and nutritional interventions.

**Practicals** – To assist in the development of practical skills in assessing health and fitness and implementing lifestyle change, practicals will be held. These classes allow students to engage in a more interactive form of learning than is possible in the lectures. The skills you will learn in practical classes and in your involvement in planning and implementing a lifestyle change program are relevant to your development as professional exercise physiologists.

After the first 4 practicals you will use the remaining timetabled sessions to complete your Lifestyle Change Project on your chosen client. In these sessions, under the supervision of an AEP, students will conduct a lifestyle assessment with their client, in order to design and implement a lifestyle change program. This will involve choosing and interviewing the client, then administering health and fitness assessments appropriate to the client's needs. See the assessment task section following for more detail.

## 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 a central teaching strategy in this course.

Summary of Assessments	Weight	Due Date
Assessment Task 1 - Lifestyle Change Project		
A) Clinical Skills Assessments	15%	Weeks 10-13
B) Written Report (client file and reflection)	25%	Week 14
Assessment Task 2 - Behaviour Change Assignment	20%	Week 10
Assessment Task 3 - Metabolic Syndrome Case Study	5%	Week 13
Assessment Task 4 - End of Session Examination	35%	Exam period

### Assessment Task 1: Lifestyle Change Project (40%)

You will plan and implement a **Lifestyle Change Project** based on the individual needs of your client who is an apparently healthy adult. Clients who are deemed moderate cardiovascular risk, maybe permitted after discussion with Dr Belinda Parmenter. This permission to participate will depend on the potential participant's risk factors.

The project includes two pieces of assessment (a) a clinical skills assessment and (b) a written report. This project will give you 40 hours toward ESSA Exercise Physiology Accreditation.

\*You are required to locate your own client and should aim to have found and confirmed your client by the end of week 4. Your client must be available during weeks 5 to 13 during your scheduled lab time.

- This assessment item will be marked in two phases and feedback and fine tuning of your project will be ongoing and provided throughout the semester by your AEP.
- Detailed marking criteria for each of the assessments is located at the end of this course outline.
- Your client interactions will be supervised by qualified AEPs during your timetabled practical laboratory times **only**.

#### **Phase A: Clinical Skills Assessment (15%)**

**Weeks 10-13**

You will be graded twice during this phase of the project.

1<sup>st</sup>: Your skills in training your client (**supervising, motivating, monitoring, exercise execution, exercise appropriateness, progressions and communication**) during weeks 10 or 11 will be assessed. Marks allocated to this assessment are 7.5%

2<sup>nd</sup>: Your skills in performing your client's final fitness assessment (**choice, administration and execution of tests, monitoring, organisation and professionalism**) during weeks 12 or 13 will be assessed. Marks allocated to this assessment are 7.5%

## **Phase B: Written Report (25%)**

**Due Monday 5<sup>th</sup> June at 5pm**

By the end of the semester you will have collected a lot of information on your client. As a part of the written report you will compile this information into a client file and write a short two page reflection on how you feel the project went for your client. This reflection should justify your exercise prescription and reflect on how you may have done things differently, now you have the benefit of hindsight.

Your written report should include:

- Client pre-exercise screening (medical, lifestyle), informed consent and risk stratification (3-4 pages);
- Diet recall and 1 page analysis and diet recommendations (500 words);
- A thorough Needs Assessment (4 to 6 points);
- Goal setting (3 short term and 3 long term);
- **Initial fitness assessment results. Note: A copy of your blank fitness assessment forms must be submitted to Turnitin by the end of week 4;**
- Strategies to increase incidental physical activity (4 tips) and reduce sedentary behaviour (4 tips);
- **Medical practitioner initial report (one page). Note: a copy of this report must be submitted to Turnitin by the end of week 8;**
- The 4 week Exercise Program and Training Cards (one page completed training card per week);
- Final fitness assessment results with comparison to initial fitness assessment;
- Medical practitioner final report (one page);
- 2 page (double-spaced) reflection on how you feel the program went, include and client feedback, and anything you would do differently next time. Sample questions you might answer are provided at the end of this course outline.

Your report should be structured, detailed, and any recommendation should be appropriately referenced (APA). Please refer to the link below for advice on the APA referencing style.  
<https://student.unsw.edu.au/referencing>

**Written assessment tasks must be handed in via Turn-it-in, the link can be found on the HESC3504 Moodle Course Page. Penalties will apply for late submissions: see page 11 of this outline.**

Detailed marking criteria can be found at the end of the course outline.

**Note 1:** You will make scheduled appointment times for your client's assessments and training with your class demonstrator early in the semester, once you have finalised your client and their availability.

**Note 2:** You must submit your blank fitness assessment forms that you will be using on your client in weeks 5 or 6 to turn it in by the end of week 4 (5pm Friday 24<sup>th</sup> March). Your tutor will then provide you with your copy at your scheduled appointment time.

**Note 3:** You must submit your completed one page medical practitioner report (as per Medicare guidelines) by the end of week 8 (5pm Friday 28<sup>th</sup> April).

**Note 4:** The results of your initial and final fitness assessments, as well as your four week training program must be submitted with your final written report.

## Assessment Task 2: Behaviour Change Assignment (20%)

Due Week 10

This assignment is designed to allow you the opportunity to practice the challenging task of changing one's behaviour. First, you will choose a specific physical activity goal and then, using what you learnt in class, you will develop a specific plan for achieving that goal. The approach you take to changing your behaviour should be grounded in some theoretical rationale. Next, you will implement your behavioural change plan, making sure to evaluate your progress along the way. This assignment will culminate in a written report. The report is to be no longer than eight (8) pages, double spaced. This limit is not including references or supplementary materials which are additional to the body of the assignment.

### MARKING CRITERIA Behavioural Change Assignment

Assignment Component	How do I achieve top marks?	Allocated Marks
<b>Background/Rationale</b>	Justify the target behaviour. Use a sound theoretical framework for developing your behavioural change plan.	/5
<b>The Plan</b>	Provide a clear description of a clear plan. Make sure your plan matches the theoretical framework you are working in. Use appropriate goal setting techniques in establishing the plan.	/5
<b>Implementation and Evaluation</b>	Put in an honest effort in working toward your goal. Adequately monitor your progress, which includes keeping any relevant data. Evaluate your progress, and adjust your goals as necessary.	/5
<b>Reflection</b>	Comment on the shortcomings of your theoretical framework, on any particular challenges you faced, and any insights you gained. What would you do differently next time?	/5
<b>Presentation</b>	The report should be well written, concise and easy to read. There should be no spelling, grammatical or typographical errors. Graphics and/or tables should support the information in the text. The report should be double spaced and appropriately referenced. Pages must be numbered.	/5

**Assessment Task 2 due Monday 8<sup>th</sup> May at 9.00am via Turn-it-in on Moodle**

## Assessment Task 3: Metabolic Syndrome Smart Sparrow Case Study (5%)

Due Week 13

On Monday 29<sup>th</sup> May, Week 13, you will be given access to a link that will open a case study on a patient with metabolic syndrome. You are to complete this case study online by 5.00pm Friday 2<sup>nd</sup> June. Your results from this case study will contribute to 5% of your overall mark.

## Assessment Task 4: Final Exam (35%)

Scheduled Exam Week

The **end of session examination** will be held during the official examination period. This examination will test not only your knowledge of physical activity and health but also your ability to apply the knowledge you have acquired from the course material to client management. The questions will be based on the material covered in the lectures and practical classes and the prescribed readings over the entire semester. The exam will address graduate attributes 1 and 2.



## Submission of Assessment Tasks

Written assessment tasks must be handed in via Turn-it-in which can be found on the Moodle website. Each assessment task is due at various times of the week throughout the semester. Please make sure you are aware of these times. Penalties apply for late submissions.

**Penalties for late submission of assignments** – In cases where an extension has NOT been granted, the following penalties will apply: For assignments submitted after **the due time and day** of the week it is due, 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. Please see this link for more information: [student.unsw.edu.au/conduct](http://student.unsw.edu.au/conduct)

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](http://student.unsw.edu.au/plagiarism)

## Referencing Style

Please acknowledge all contributions and work of “others” in your assignments using the APA referencing style. Information on referencing can be found at this link: <https://student.unsw.edu.au/referencing>

## HESC 3504 Course Schedule

Week	Date	Lecture 1 Tuesday 12-1pm Wurth LG03	Lecture 2 Tues 1-2pm Wurth LG03	Lecture 3 Thurs 1-2pm Central Lecture Block 3	Practicals CSEP Rooms	
1	Feb 27	Introduction: Role of an EP <b>BP</b>	Theory into Practice: Being an AEP <b>BP</b>	Healthy Built Environments <b>ST</b>	Assignment Preparation, Client identification and Risk Stratification / Screening	
2	Mar 6	Risk Stratification <b>BP</b>	CV Risk Assessment <b>BP</b>	Exercise Assessment & Prescription <b>BP</b>	CV Risk & Assessments 1	
3	Mar 13	Models of Exercise Behaviour 1 <b>LV</b>	Models of Exercise Behaviour 2 <b>LV</b>	Counselling Skills 1 <b>SL</b>	CV Risk & Assessments 2 (ASCVD calculator and new ACSM guidelines)	
<b>Fitness Assessment Forms due Friday 24<sup>th</sup> March at 5.00pm via Turn-it-in Moodle <input type="checkbox"/></b>						
4	Mar 20	Counselling Skills 2 <b>SL</b>	Counselling Skills 3 <b>SL</b>	Working toward Behavioural Change <b>LV</b>	Assessment planning and exercise prescription preparation	
<b><u>Lifestyle Change Project Commences</u></b>						
5	Mar 27	Body Image and Exercise <b>LV</b>	Physical Activity and Mental Health 1 <b>LV</b>	Physical Activity and Mental Health 2 <b>LV</b>	<b>Initial Client Assessments</b>	
6	Apr 3	Exercise and Healthy Aging 1 <b>DS</b>	Exercise and Healthy Aging 2 <b>DS</b>	Physical Activity and Health <b>BP</b>	<b>Initial Client Assessments</b>	
7	Apr 10	Exercise and Healthy Aging 3 <b>DS</b>	Sedentary Behaviour and Health <b>BP</b>	Metabolic Syndrome 1 <b>DS</b>	<b>Client Program Delivery</b>	
MSB	Apr 17	<b>Mid Semester Break</b>				
<b>Medical Practitioner Initial Report due Friday 28<sup>th</sup> April at 5.00pm via Turn-it-in Moodle <input type="checkbox"/></b>						
8	Apr 24	<b>No Scheduled Lecture: Public Holiday</b>	<b>No Scheduled Lecture: Public Holiday</b>	Metabolic Syndrome 2 <b>DS</b>	<b>Client Training 1</b>	
9	May 1	Metabolic Syndrome Case Study <b>BP</b>	Lifestyle and Weight Management 1 <b>BP</b>	Lifestyle and Weight Management 2 <b>BP</b>	<b>Client Training 2</b>	
	May 1	<b>Assessment Task 2: Behaviour Change Assignment Due beginning of Week 10 Monday 8<sup>th</sup> May at 9.00am via Turn-it-in on Moodle <input type="checkbox"/></b>				
10	May 8	Lifestyle and Weight Management 3 <b>BP</b>	Lifestyle and Health 1 <b>BP</b>	Lifestyle and Health 2 <b>BP</b>	<b>Client Training 3 (Assessment)</b>	
11	May 15	Physical Activity and Children 1 <b>BP</b>	Physical Activity and Children 2 <b>BP</b>	Assignment Information Discussion <b>BP</b>	<b>Client Training 4 (Assessment)</b>	
12	May 22	Nutrition and Physical Activity 1 <b>CM</b>	Nutrition and Physical Activity 2 <b>CM</b>	Regroove the Move <b>JB</b>	<b>Final Client Assessments (Assessment)</b>	
13	May 29	<b>No Scheduled Lectures / Metabolic Syndrome Case Study due Friday 2<sup>nd</sup> June at 5.00pm <input type="checkbox"/></b>				<b>Final Client Assessments (Assessment)</b>
14	Jun 5	<b>Lifestyle Change Project Final Written Report due Beginning of Week 14 Monday 5<sup>th</sup> June at 5.00pm via Turn-it-in on Moodle <input type="checkbox"/></b>				

BP: Dr. Belinda Parmenter; ST: Assoc. Prof. Susan Thompson; LV: Dr Lenny Vartanian; DS: Dr. David Simar; CM: Dr. Chris Maloney; JB: Dr John Booth SL: Sophie Li

## Resources for students

---

See also: [Learning Resources](#)

### Computing Facilities

There are computing facilities in Wallace Wurth, rooms G2, G4, 108 and 109. SERVE and FOODWORKS, along with VHI exercise kits have been downloaded for your use.

### Recommended Textbooks

Each of the below texts will be available for purchase through the book shop. In addition, copies are available in the High Use section of the main library.

1. Ehrman J.K., Gordon P.M., Visich P.S. and Keteyian S.J. (2013). Clinical Exercise Physiology. 3<sup>rd</sup> Edition. Champaign, IL. Human Kinetics. (*This is the same text that HESC3541 recommends*)
2. Cameron, M., Selig, S., Hemphill, D. (2011) Clinical Exercise: A case based approach. 3<sup>rd</sup> Ed. Chatswood, NSW. Elsevier.
3. Hardman, A., and Stensel, D., (2009) Physical activity and health: The evidence explained. 2<sup>nd</sup> Ed, Milton Park, Abingdon, Routledge.

### Suggested Readings

Books available at Main Library:

1. Acevedo, E. & Ekkekakis, P. (2006). Affective responses to acute exercise. *The Psychobiology of Exercise and Sport*. Human Kinetics, Champaign, Ill. High Use Collection (612.044/113)
2. Curt Lox, Kathleen A Martin, Kathleen Anne Ginis, Steven J Petruzzello (2010) *The Psychology of Exercise: Integrating Theory and Practice*. 3rd Ed., Scottsdale, Arizona : Holcomb Hathaway Publishers.

Links to the following journal articles will be found on the MOODLE course page:

1. Boutcher, S.H. & Dunn, S.L. (2009). Factors that may impede the weight loss response to exercise-based interventions. *Obes Rev*, 10, 671-680.
2. Chau, J.Y., Van Der Ploeg, C., Dunn, S., Kurko, J. & Baumann, A.E. (2012). Validity of the occupational sitting and physical activity questionnaire. *Med Sci Sports Ex*, 44(1), 118-125.
3. Eriksson, J. et al. (1997). Exercise and the metabolic syndrome. *Diabetologia*, 40, 125-135.
4. Faigenbaum, A.D. & Myer, G.D. (2009). Resistance training among young athletes: safety, efficacy and injury prevention effects. *Br J Sports Med*. 44(1), 56-63.
5. Hamer, M., Ingle, L., Carroll, S. & Stamatakis, E. (2012). Physical activity and cardiovascular mortality risk: possible protective mechanisms? *Med Sci Sports Ex*, 44(1), 84-88.
6. Hopkins, S.A. & Cutfield, W.S. (2011). Exercise in pregnancy: weighing up the long-term impact on the next generation. *Ex Sp Sc Rev*, 39(3), 120-127
7. Libby, P. (2002). Atherosclerosis: the new view. *Scientific American*, 286(5), 46-55.
8. Lumbers, E.R. (2002). Exercise in pregnancy: physiological basis of exercise prescription for the pregnant woman. *J Sc Med in Sp* 5(1), 20-31.
9. Myers, J. et al (2002). Exercise capacity and mortality among men referred for exercise testing. *New Eng J Med*, 346, 793-801.
10. Pescatello, L. et al. (2004). Exercise and hypertension. *Med Sci Sports Ex*, 36, 533-553.
11. Shaw K, Gennat H, O'Rourke P, Del Mar C. Exercise for overweight or obesity. *Cochrane Database Syst Rev* (2006), 4:CD003817.
12. Steele, R.M, Brage, S., Corder, K., Wareham N.J. & Ekelund, U. (2008). Physical activity, cardiorespiratory fitness and the metabolic syndrome in youth. *J Appl Physiol*, 105, 342-351.
13. Trapp, E.G., Chisholm, D.J., Freund, J., & Boutcher, S.H. The effect of high intensity intermittent exercise training on fat loss and insulin levels of young women, *Int J Obes*, 32(4), 684-691.
14. Zinn, A.R. (2010). Unconventional wisdom about the obesity epidemic. *Am J Med Sc*, 340(6), 481-491.

## Course Evaluation and Development

---

Each year feedback is sought from students about the courses offered in Exercise Physiology and continual improvements are made based on this feedback. [myExperience](#) is the way in which student feedback is evaluated and significant changes to the course will be communicated to subsequent cohorts of students. As a result of feedback from last year's students, new features of the course include the mini assessment of clinical skills which will help students prepare for the OSCE in their final year.

## Health and Safety

---

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

## Examination Procedures and Attendance Requirements

---

Attendance is expected at all lectures and practical sessions for this course. Attendance at all practical sessions and clinical sessions will be recorded. 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 course convenor within seven (7) days of the time period of the certificate's expiry. If misadventure has occurred, appropriate documentation must be provided within seven (7) days. No consideration will be given after this time. Although lectures will be available on Echo, student participation is encouraged in the lectures and these are important to attend.

### Deferred

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.

### Exams

### 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.

## Appendix: Marking Criteria for Lifestyle Change Project (40%)

### Clinical Skills Exercise Training Assessment (7.5%)

Assessment component	How do I achieve top marks?	Allocated Marks
Strategic component	<ol style="list-style-type: none"> <li>1. Are timing of the exercises appropriately scheduled?</li> <li>2. Is there an appropriate warm up for each activity?</li> <li>3. Does the student EP provide regular feedback, both motivational and correctional to the client?</li> <li>4. Does the student EP adequately progress the client through their program, from an intensity perspective?</li> </ol>	/10
Education component	<ol style="list-style-type: none"> <li>1. Does the student EP engage and educate the client throughout the training session?</li> <li>2. Does the student EP supervise their client closely?</li> <li>3. Does the student EP monitor exercise technique and intensity throughout the training session?</li> </ol>	/10
Professionalism	<ol style="list-style-type: none"> <li>1. Did the student arrange the training times professionally?</li> <li>2. Is the student professional in client instruction, interaction and conduct?</li> <li>3. Is the student dressed appropriately?</li> <li>4. Was the student on time?</li> <li>5. Did the student address the client professionally?</li> </ol>	/10

### Clinical Skills Final Fitness/Exercise Assessment (7.5%)

Introduction to session and Interviewing Skills (Comprehensiveness of Interview Topics)									
1	2	3	4	5	6	7	8	9	10
Unsatisfactory				Satisfactory			Excellent		
Choice of Fitness Assessment (Are they appropriate to assess achievement of goals? Was it Holistic?)									
1	2	3	4	5	6	7	8	9	10
Unsatisfactory				Satisfactory			Excellent		
Fitness/Exercise Testing Skills (Correct Execution)									
1	2	3	4	5	6	7	8	9	10
Unsatisfactory				Satisfactory			Excellent		
Organisation and Efficiency (Did the assessment flow?)									
1	2	3	4	5	6	7	8	9	10
Unsatisfactory				Satisfactory			Excellent		
Overall Clinical, Ethical and Professional Competence									
1	2	3	4	5	6	7	8	9	10
Unsatisfactory				Satisfactory			Excellent		

## Written Report (25%)

Assignment component	How do I achieve top marks?	Allocated Marks
Screening and Exercise Assessments	<ol style="list-style-type: none"> <li>1. Choose and administer appropriate subjective and objective pre exercise screening tests for your client.</li> <li>2. Present the pre-exercise program objective tests in an organised form that is easy to follow and compare with normative data where appropriate.</li> </ol>	/10
Dietary Analysis and Recommendations	<ol style="list-style-type: none"> <li>1. Ask your client to complete a 3-day food diary.</li> <li>2. Use SERVE or FOODWORKs or another diet program of your choice to analyse the diet for the 3 days.</li> <li>3. Compare food intake with the RDIs for macro- and micronutrients.</li> <li>4. Comment appropriately (e.g. Are they getting five serves of vegetables per day?)</li> <li>5. Comment on whether the client is eating too much processed food and make recommendations on how they can improve the quality of their food intake.</li> <li>6. Discuss whether or not the diet matches the recommendations for nutrient composition, fibre intake and other important nutrients, as well as where deficiencies or excesses exist.</li> </ol>	/10
Goal Setting and Needs Assessment	<ol style="list-style-type: none"> <li>1. In conjunction with your client, set appropriate short and long term SMART goals based on their needs and desire for lifestyle change.</li> <li>2. Assess their personal goals and needs obtained from subjective and objective tests and formulate a list of your client's needs. This makes up the needs assessment. Ensure that part of your assessment examines possible barriers to exercise.</li> </ol>	/10
Fitness Testing and Analysis	<ol style="list-style-type: none"> <li>1. The testing is appropriate to the goals, needs and program prescribed for the client.</li> <li>2. Pre- and post-program testing data are presented in tables and/or graphs and compared to normative data where appropriate. Any significant changes are clearly stated.</li> <li>3. The student objectively analyses the data from any testing.</li> <li>4. Analyses and conclusions derived are appropriate.</li> </ol>	/10
Strategic component	<ol style="list-style-type: none"> <li>1. The planned strategies for lifestyle change support the needs and goals of the client.</li> <li>2. The strategies are logical, realistic and will help the client achieve their goals.</li> <li>3. Client requests and feedback are an integral part of the program.</li> </ol>	/10
Education component	<ol style="list-style-type: none"> <li>1. The educational needs of the client have been stated.</li> <li>2. There are educational strategies in place to address these client needs.</li> <li>3. The education program supports the needs and goals of the client.</li> <li>4. A list of resources to support the client's educational needs is included.</li> </ol>	/10
Activities/Exercise Program	<ol style="list-style-type: none"> <li>1. The exercises are clearly stated and a rationale given for each exercise.</li> <li>2. The exercises and education plan address the needs and goals of the client.</li> <li>3. There is a logical progression of activities that support the achievement of both short and long term goals.</li> <li>4. The exercise and education plan address all the client's needs including exercise, dietary change, stress and time</li> </ol>	/10

	management, avoiding sedentary behaviour, smoking, alcohol consumption and/or whatever is pertinent to your client.	
Medical Practitioner Reports	<ol style="list-style-type: none"> <li>Two separate <b>one</b> page reports (initial and final) to the client's General Practitioner briefly outlining the assessment results, treatment plan and treatment effects is included.</li> <li>The report is clear, concise, informative and quick to read.</li> </ol>	/10
Reflection and Overall Presentation	<ol style="list-style-type: none"> <li>A reflective report is included at the end of the client file which outlines the students views of the project.</li> <li>The report should be well written, concise and easy to read.</li> <li>There should be no spelling, grammatical or typographical errors.</li> <li>Graphics and/or tables should support the information in the text.</li> <li>The report should be double spaced and appropriately referenced.</li> <li>Pages must be numbered.</li> <li>The report should represent an actual client file.</li> <li>Any justifications for lifestyle advice and exercise prescription should be appropriately referenced.</li> </ol>	/10

**Sample Reflection Questions for your final written report reflection/justification:**

*Aim for two pages double spaced*

**Reflection Question 1:** What did you learn by completing the fitness assessments and writing the exercise program in the Lifestyle Change Project? Was it useful? How? What could you have done better?

**Reflection Question 2:** What did you learn when training your client in the Lifestyle Change Project? Was it useful? How? What could you have done better?

**Reflection Question 3:** What did you learn through completing your client's final assessment? How did the program work? Were your clients goals met? What were its strengths and weaknesses? What could you have done better for your client? Do you have any future recommendations for your client?

**Reflection Question 4:** Discuss which skills you have acquired that you didn't expect to develop through this course?

**Reflection Question 5:** How will you take what you have learned in this course beyond this year?