



# THE UNIVERSITY OF NEW SOUTH WALES

**Exercise Physiology  
School of Medical Sciences  
Faculty of Medicine**

## **COURSE: HESC3581 PHYSICAL ACTIVITY AND SPECIAL POPULATIONS**

**Lectures:** Tuesday 9.00 - 11.00 am BioMed D

**Problem based learning scenario lecture:** Tuesday 11.00 - 12.00 pm BioMed D

**Instructors:** Steve Boutcher and Yati Boutcher

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## **HESC3581 COURSE INFORMATION**

Physical Activity for Special Populations (HESC3581) is a 3rd year Exercise Physiology elective course worth six Units of Credit (6 UOC). The course is part of study for the degree of Bachelor of Science or Bachelor of Exercise Physiology. The course will build on the information you have gained in Physical Activity and Health (HESC3504) as well as Exercise Physiology (HESC2501). Concepts gained in courses such as anatomy, human physiology, biomechanics, and behavioural science will contribute to your learning in this course.

## **OBJECTIVES OF THE COURSE**

This course examines the effect of physical activity on special populations. The impact of physical activity on a range of special populations are summarised (e.g., cancer, pregnancy, obesity). The course also covers lifestyle prescription for these special populations. The course will be particularly suited to students involved with lifestyle prescription focused on physical activity.

It is intended that at the end of the course you will be able to:

- describe the effects of physical activity on a range of special populations
- be able to prescribe lifestyle change programs for a range of special populations
- demonstrate an understanding of the major findings of meta-analyses conducted in the special population area

## **COURSE STRUCTURE and TEACHING STRATEGIES**

This is a 6 unit course and consists of:

- 3 lectures/case studies per week

Students are expected to attend all scheduled activities for their full duration. Students are reminded that UNSW recommends that a 6 units-of-credit course should involve about 150-180 hours of study and learning activities. The formal learning activities are approximately 36 hours throughout the semester and students are expected (and strongly recommended) to do double the number of hours of additional study. The time spent reading the articles provided and designing lifestyle change programs will add to this time commitment.

Lectures will provide you with the concepts and theory essential for understanding how physical activity impacts on the health of special populations. 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 a variety of diseases and special populations.

To assist in the development of prescriptive skill, problem-based learning sessions (case studies) will be held. These sessions will allow students to engage in a more interactive form of learning than is possible in the lectures. The skills you will learn in your involvement in planning and implementing a lifestyle change program are relevant to your development as a professional exercise physiologist.

## **APPROACH TO LEARNING AND TEACHING**

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

Although the primary source of information for this course is the lecture material, effective learning can be enhanced through self-directed use of other resources such as textbooks and Web based sources. It is up to you to ensure you perform well in each part of the course; preparing for classes; completing assignments; studying for exams, and seeking assistance to clarify your understanding.

### **STUDENT LEARNING OUTCOMES**

HESC3581 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**

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

On completion of this course students should be able to:

1. describe the effects of regular physical activity on a variety of diseases
2. describe the effects of regular physical activity on a variety of special populations
3. demonstrate a basic knowledge of lifestyle diseases
4. demonstrate the ability to design lifestyle change programs for a range of special populations

#### **Texts**

Skinner, J. (2006). *Exercise Testing and Exercise Prescription for Special Cases*. Lea & Febiger, USA.

Williamson, P. (2010). *Exercise for Special Populations*. L.Wolters Kluwer, USA.

Ehrman, J.K., Gordon, P.M., Visich, P.S., Keteyian, S.J. (2003). *Clinical Exercise Physiology*. Human Kinetics, USA

LeMura, L.M., von Duvillard, S.P. (2003). *Clinical Exercise Physiology*. Lippincott, Williams & Williams, USA

Bouchard, C., Blair, S.N., & Haskell, W.L. (2007). *Physical Activity and Health*. Human Kinetics, USA

#### **Case Study Portfolios and manuals**

Case Study Prescription Portfolio A

Case Study Prescription Portfolio B

Drug and Exercise Fact File Manual

Food for Health Dietary Guidelines

## ASSESSMENT PROCEDURES

- 1. Full prescription write-ups** (50% of course grade). Five prescription write-ups shall be required. There will be a maximum of 10 pages for each prescription. Prescriptions have to be handed in two weeks after the last day of class. Examples for writing up are included in two Case Study Portfolios that can be accessed through Blackboard. See marking criteria (page 5) and description of special population write-ups (page 10).
- 2. Multi-choice Exam** (30% of course grade). A 80 question multi-choice exam containing questions about 23 key meta-analyses/reviews in the special population/exercise area (page 8). The exam also includes questions about drugs and exercise.
- 3. Drug and exercise fact file** (10% of grade). A one-page fact file in the form of a brochure that will consist of one side of A4 paper submitted by email to Sue Cheng in a PDF format. The fact file will describe one drug that is used by humans. Areas of information to include: usage information, dosage guidelines, side effects, precautions, and interactions (especially exercise). Drug fact files have to be sent to Sue Cheng one week before the last day of class. Students will have access to these fact files at the end of the course.
- 4. Case study questions** (10% of grade). Eight sets of case study questions shall be required. Answers have to be handed in at the start of each class before each case study is discussed. Answering the questions before each case study will prepare the student for active discussion. See description of case studies (page 11).

## Marking criteria for the prescription write-ups

| Criteria                       | High Distinction   | Distinction  | Credit   | Pass   |
|--------------------------------|--|--|--|--|
| Introduction                   | Contains all points mentioned under Credit.  | Contains most but not all points mentioned under Credit.   | Contains a weak introduction. No background, no description of unique characteristics, no mention of special problems.   | No introduction                                  |
| Individual assessment stage    | Outstanding individual assessment covering medical, physiological, psychological, and lifestyle.   | Good individual assessment covering medical, physiological, psychological, and lifestyle.  | Adequate individual assessment covering medical, physiological, psychological, and lifestyle.  | Insufficient individual assessment.              |
| Conceptual and education stage | Outstanding conceptual and educational program containing goals, concepts, and education.  | Good conceptual and educational program containing goals, concepts, and education.   | Adequate conceptual and educational program containing goals, concepts, and education.   | Insufficient conceptual and educational program. |
| The program                    | An outstanding program containing daily diaries describing the chosen components of the program (e.g., aerobic, strength, flexibility). Containing specific details and appropriate exercises. | A good program containing daily diaries describing the chosen components of the program (e.g., aerobic, strength, flexibility). Containing specific details, and some inappropriate (or missing) exercises, however. | An adequate program containing daily diaries describing the chosen components of the program (e.g., aerobic, strength, flexibility). Generally lacking specific details, and some inappropriate (or missing) exercises, however. | A brief and superficial program.                 |
| Presentation                   | Excellent use of tables and outstanding presentation.  | Good tables and good presentation.   | Some tables and reasonable presentation.   | No tables and poor presentation.                 |

## **LECTURE OUTLINE – HESC3581 PHYSICAL ACTIVITY IN SPECIAL POPULATIONS**

**Tuesday (9.00 am – 11.00 am; three lectures weeks 1, 2, 11, and 12)**

### **Week 1**

*Lecture* Introduction (**SB**); *Lecture* Lifestyle Change Model (**SB**)  
*Lecture* Case study (**SB**)

### **Week 2**

*Lecture* Drugs & exercise (**SB**); *Lecture* Drugs & exercise (**SB**)  
*Lecture* Depression & exercise (**SB**)

### **Week 3**

*Lecture* Obesity<sup>#</sup> (**SB**); *Lecture* Weight loss and exercise (**SB**); <sup>#</sup>Case Study Joan<sup>SB</sup>

### **Week 4**

*Lecture* Nutrients & health<sup>#</sup> (**SB**); *Lecture* Corporate health\* (**SB**); <sup>#</sup>Case study Jack<sup>YB</sup>

### **Week 5**

*Lecture* Resist exercise & health (**SB**); *Lecture* Vascular disease<sup>#</sup> (**YB**); <sup>#</sup>Case study Rick<sup>SB</sup>

### **Week 6**

*Lecture* Athletic Triad Syn (**YB**); *Lecture* Cancer and exercise<sup>#</sup> (**SB**); <sup>#</sup>Case study Lenny  
Julia<sup>SB</sup>

### **Week 7**

*Lecture* Hypertension & exercise<sup>#</sup> (**YB**); *Lecture* HIV and exercise\* (**SB**); <sup>#</sup>Case study Bill<sup>YB</sup>

### **Week 8**

*Lecture* Thyroid dysfunction (**SB**); *Lecture* Pregnancy and exercise<sup>#</sup> (**YB**); <sup>#</sup>Case study Judy<sup>YB</sup>

### **Week 9**

*Lecture* Paediatrics<sup>#</sup> (**YB**); *Lecture* Smoking and exercise\* (**SB**); <sup>#</sup>Case study John<sup>SB</sup>

### **Week 10**

*Lecture* Chronic fatigue\* (**SB**); *Lecture* Cardiac rehabilitation<sup>#</sup> (**SB**); <sup>#</sup>Case study Frank<sup>YB</sup>

### **Week 11**

*Lecture* Metabolic syndrome and exercise (**YB**); *Lecture* Fatty liver and exercise (**YB**)  
*Lecture* Stress and exercise (**SB**)

### **Week 12**

*Lecture* Dementia and exercise (**SB**); *Lecture* Sleep and exercise\* (**SB**)  
*Lecture* Physical activity and special populations summary (**SB**)

\*Five Lifestyle Prescription write-ups (see description on page 9)

<sup>#</sup>Case study lecture: eight case studies with a set of questions to be handed in before class.

**Lecturers:** **SB** Steve Boutcher; **YB** Yati Boutcher.

## WEEKLY READINGS

**Week 2 - DRUGS, EXERCISE:** Thavendiranathan et al. (2006). *Arch of Int Med*, 166, 2307-2313. (StatinsHeartDisThav.pdf). Salpeter et al. (2008). *Am J Med*, 121, 149-157. (MetDiabSalpeter.pdf).  
**DEPRESSION:** Mead et al. (2009). *Coch Database of Sys Rev*. (DepExMeadMeta.pdf).

**Week 3 - WEIGHT LOSS:** Wu et al. (2009). *Obesity Reviews*, 10, 313-323. (ExFatMetaWu.pdf).  
Boutcher & Dunn (2009). *Obesity Reviews*, 10, 671-680. (BoutchDunnObeseReviews.pdf)  
Boutcher (2010). *Journal of Obesity* (BoutchJObese.pdf).

**Week 4 - NUTRIENTS, HEALTH:** Mente et al. (2009). *Archives of Internal Medicine*, 169, 659-669. (MenteCVDDiet.pdf). Vartanian et al. (2007). *Am J of Public Health*, 97, 667-675. (SoftMet.pdf).

**Week 5 - RESISTANCE EXERCISE:** Braith & Stewart (2006). *Circulation*, 113, 2642-50. (ResistHealthBraith.pdf). Snowling et al. (2006). *Diab Care*, 29, 2518-2527. (DiabExSnowling.pdf).  
**VASCULAR DISEASE:** Regensteiner et al. (2002). *Am J Med*, 112, 49-57. (PeriVasDisRevRegen.pdf).

**Week 6 - CANCER & EXERCISE:** Wolin et al. (2009). *Brit J Cancer*, 100, 611-616. (ColonExercise.pdf). Wolin et al. (2008). *Brit J Cancer*, 99, 995-999. (CancerWeight.pdf).

**Week 7 - HYPERTENSION:** Cornelisson et al. *Hypertension*, 46, 667-675. (HyperExCorn.pdf).  
**AIDS & HIV:** Nixon et al. (2005). *Coch Database of Sys Rev, Issue 4*. (HIVExerCoch.pdf).  
O'Brien et al. (2004). *Coch Database of Sys Rev, Issue 2*. (HIVResistExObrien.pdf).

**Week 8 - THYROID:** Jones et al. (2010). *American Journal of Medicine*, 123, 502-504. (ThyrSubJones.pdf).  
**PREGNANCY:** Kraemer et al. (2008). *Coch Database of Sys Rev, Issue 4*. (PregExCoch.pdf).

**Week 9 - PAEDIATRICS:** Robertson et al. (2008). *Paediatric Disorders*, 9, 65-77. (KidsDiabExAdolf.pdf).  
**SMOKING:** Ussher et al. (2004). *Coch Database of Sys Rev, Issue 2*. (SmokExerUsher.pdf).

**Week 10 - FATIGUE:** Puetz et al. (2006). *Psychological Bulletin*, 132, 866-8762. (ChronFatMetaDish.pdf).  
**CARDIAC REHAB:** Taylor et al. (2004). *Amer J Med*, 116, 682-692. (MetaCardRehab.pdf).

**Week 11 – MET SYNDROME:** Grundy (2007). *Journal Clin Endo & Met*, 92, 399-404. (MetSynGrundy.pdf).  
**STRESS:** Chida and Steptoe (2010). *Hypertension*, 55 (CardReacHyperChida.pdf).

**Week 12 - DEMENTIA:** Heyn et al. (2004). *Arch Phys Med Rehabil*, 85, 1694-704. (DementHeyn.pdf).  
**SLEEP:** Youngstedt (2005). *Clin Sports Med*, 24, 355-65 (SleepYoung.pdf).

## Twenty three reviews (3 multi-choice each plus 11 drug/exercise questions; a total of 80 questions)

1. Thavendiranathan et al. (2006). Primary prevention of cardiovascular disease with statin therapy. *Archives of Internal Medicine*, 166, 2307-2313. **(StatinsHeartDisThav.pdf)**
2. Salpeter et al. (2008). Meta-analysis: metformin treatment in persons at risk for diabetes mellitus. *The American Journal of Medicine*, 121, 149-157. **(MetDiabSalpeter.pdf)**
3. Mead et al. (2009). *Cochrane Database of Systematic Reviews*. CD004366. **(DepExMeadMeta.pdf)**
4. Wu et al. (2009). Long-term effectiveness of diet-plus-exercise interventions vs. diet-only interventions for weight loss: a meta-analysis. *Obesity Reviews*, 10, 313-323. **(ExFatMetaWu.pdf)**
5. Boutcher & Dunn (2009). Factors that may impede fat loss to exercise-based weight loss interventions. *Obesity Reviews*. **(BoutchDunnObeseReviews.pdf)**
6. Boutcher (2010). The effects of high intensity intermittent exercise on fat loss. *Journal of Obesity*. **(BoutchJObese.pdf)**
7. Mente et al. (2009). A systematic review of the evidence supporting a causal link between dietary factors and coronary... *Archives of Internal Medicine*, 169, 659-669. **(MenteCVDDiet.pdf)**
8. Vartanian et al. (2007). Effects of soft drink consumption on nutrition and health: A systematic review and meta-analysis. *American Journal of Public Health*, 97, 667-675. **(SoftMet.pdf)**
9. Braith et al. (2006). Resistance exercise training: its role in the prevention of cardiovascular disease. *Circulation*, 113, 2642-2650. **(ResistHealthBraith.pdf)**
10. Snowling et al. (2006). Effects of different modes of exercise training on glucose control and risk factors. *Diabetes Care*, 29, 2518-2527. **(DiabExSnowling.pdf)**
11. Regensteiner et al. (2002). Current medical therapies for patients with peripheral arterial disease: A critical review. *American Journal of Medicine*, 112, 49-57. **(PeriVasDisRevRegen.pdf)**
12. Wolin et al. (2009). Physical activity and colon cancer prevention: a meta-analysis. *British Journal of Cancer*, 100,611-616.**(ColonExercise.pdf)**
13. Wolin et al. (2008). Can weight loss prevent cancer? *British Journal of Cancer*, 99, 995-999. **(CancerWeight.pdf)**
14. Cornelisson et al. (2005). Effects of endurance training on blood pressure... *Hypertension*, 46, 667-675. **(HyperExCorn.pdf)**
15. O'Brien et al. (2005). Aerobic exercise interventions for adults living with HIV/AIDS (Review). *Cochrane Database of Systematic Reviews Issue 4*. **(HIVExerCoch.pdf)**
16. O'Brien et al. (2004). Progressive resistance exercise for adults living with HIV/AIDS. *Cochrane Database of Systematic Reviews Issue 2*. **(HIVResistExObrien.pdf)**
17. Kraemer et al. (2008). Aerobic exercise for women during pregnancy. *Cochrane Database of Systematic Reviews Issue 4*. **(PregExCoch.pdf)**
18. Robertson et al. (2008). Exercise in children and adolescents with diabetes. *Paediatric Disorders*, 9, 65-77. **(KidsDiabExAdolf.pdf)**
19. Ussher et al. (2004). Exercise interventions for smoking cessation. *Cochrane Database of Systematic Reviews, Issue 2*. **(SmokExerUsher.pdf)**
20. Puetz et al. (2006). Effects of chronic exercise on feelings of energy and fatigue: a quantitative synthesis. *Psychological Bulletin*, 132, 866-8762. **(ChronFatMetaDish.pdf)**



21. Taylor et al. (2004). Exercise based rehabilitation for patients with coronary heart disease: Systematic review and meta-analysis of randomized controlled trials. *American Journal of Medicine*, 116, 682-692. **(MetaCardRehab.pdf)**
22. Heyn et al. (2004). The effects of exercise training on elderly persons with cognitive impairment and dementia: a meta-analysis. *Arch Phys Med Rehab*, 85, 1694-1704. **(DementHayn.pdf)**
23. Youngstedt (2005). Effects of exercise on sleep. *Clin Sports Med*, 24, 355-65. **(SleepYoung.pdf)**

## **Special population prescription write-ups (five): to be handed in two weeks after the last lecture**

### **Scenario 1 - Corporate Health**

A small company based in Sydney CBD is interested in lowering its health costs and improving the health and work efficiency of its workforce. The company has a small gym (6 m by 6 m) and all staff have email and internet facilities. The company has allocated 1.5 EP positions to the development of a wellness program and \$40,000 for initial equipment set up. The running cost budget for the first year is \$2,000. Currently, there is no exercise or other kind of equipment. There are 60 staff who have indicated they want to be part of the new wellness program. Design an exercise-based program for this company. What equipment would you purchase, what programs would you initiate, and what data would you collect to justify your existence at the end of the first year?

### **Scenario 2 – HIV and exercise**

An HIV male patient, aged 32 years, is keen to incorporate regular exercise into his treatment. He is concerned about the type of exercise he can carry out without negatively affecting his health. Over the last couple of years he has increased his body fat and feels he has lost a lot of muscle mass. He constantly feels tired. His weekly physical activity involves 5 minutes of walking to the shop daily. His weight is 70 kilos with 16% body fat.

### **Scenario 3 - Smoking**

An overweight male of 24 years comes to you for specific advice about the kind of exercise he can do to help give up smoking. He has been smoking for 10 years and has not been successful in giving it up. He feels his health has deteriorated and feels unfit and weak. He is inactive and has a poor diet. His weight is 76 kilos with 28% body fat.

### **Scenario 4 – Fatigue**

An overweight female aged 42 years is constantly fatigued and sleeps poorly. She has two children and two part-time jobs. Over the last number of years she has increased her body fat and feels she has lost a lot of muscle mass. She has a poor diet with too many calories from processed foods. Her weekly physical activity involves 6 minutes of walking to the shop four times per week. Her weight is 80 kilos with 37% body fat. Write up a lifestyle prescription for this case study focusing on strategies to relieve fatigue.

### **Scenario 5 – Sleep and menopause**

An inactive woman of 53 years comes to you for specific advice about the kind of exercise she can do after recently experiencing menopause. She experiences menopausal symptoms such as hot flushes and discomfort and has elevated cholesterol levels (6.8 mmol/L). Her quality of sleep has been dramatically reduced. She has no weekly physical activity apart from house chores. Her weight is 80 kilos with 37% body fat. Write up a lifestyle prescription for this case study focusing on strategies to increase quality of sleep, to influence postmenopausal symptoms, and to improve cholesterol levels and fitness.

**Remember:** Include an introduction describing the disease or condition. Use the Lifestyle Change Model to develop your case study. Describe what aspects of assessment you would carry out. Describe how you would educate your client about their disease or condition, and so forth. Be specific about the components of the lifestyle program.

## **Case studies - problem based learning scenarios (eight sets of questions to be researched before case study discussion)**

### **Case study 1 Joan - Obesity**

An overweight inactive women of 43 years comes to you for specific advice about the kind of exercise she can do to lose weight. She has dieted frequently in the past but has never been successful in keeping the weight off. Over the last 10 years she has increased her body fat and is keen to reduce her weight. She now suffers from dyslipidemia and is on a statin (Lipitor). She has no weekly physical activity apart from house chores on weekends. She has metabolic syndrome and has significant stress in her life and does not sleep well. Her weight is 80 kilos with 34% body fat. Research this case study and answer the questions provided so you can discuss the scenario in class.

### **Case study 2 Jack - Nutrients**

An overweight inactive man of 43 years comes to you for help with feeling lethargic and putting on weight. He suffers from dyslipidemia and is on a statin (Lipitor). Over the last 10 years he has increased his body fat and is keen to reduce his weight. He has no weekly physical activity apart from garden chores on weekends. A dietary assessment reveals that he is constantly consuming processed sugar (soda, candy, etc) throughout the day. However, he enjoys his diet and feels it does not impact negatively on his health. His weight is 92 kilos with 34% body fat. How can this client change his lifestyle? Research this case study and answer the questions provided so you can discuss the scenario in class.

### **Case study 3 Rick - Peripheral vascular disease**

An overweight, inactive man of 56 years comes to you for specific advice about the kind of exercise he can do to relieve the pain of intermittent claudication. Over the last 10 years he has increased his body fat. He has no weekly physical activity. His weight is 88 kilos with 35% body fat. Research this case study and answer the questions provided so you can discuss the scenario in class.

### **Case study 4a Lenny - Prostate cancer**

An overweight inactive man of 53 years comes to you for specific advice about the kind of exercise he can do whilst receiving radiation and chemotherapy treatment for prostate cancer. Since starting treatment six weeks ago he feels chronically tired and believes he is losing his muscle mass. His weight is 84 kilos with 22% body fat. Research this case study and answer the questions provided so you can discuss the scenario in class.

### **Case study 4b Julia - Breast cancer**

A moderately, overweight inactive women of 43 years comes to you for specific advice about the kind of exercise she can do whilst receiving radiation and chemotherapy treatment for breast cancer. Since starting treatment one month ago she feels chronically tired and believes she is losing her muscle mass. She has no weekly physical activity. Her weight is 70 kilos with 26% body fat. Research this case study and answer the questions provided so you can discuss the scenario in class.

### **Case study 5 Bill - Hypertension**

An overweight male of 38 years comes to you for specific advice about the kind of exercise he can do to help his hypertension problem. His waist circumference is 104 cm. He has normal lipid levels but over the last 5 years he has suffered from hypertension and is on an ACE inhibitor (Captopril). He has no weekly physical activity but is now consuming a healthy plant based diet. His weight is 82 kilos with 28% body fat. Research this case study and answer the questions provided so you can discuss the scenario in class.

### **Case study 6 Judy - Pregnancy**

A pregnant, untrained, relatively inactive woman of 33 years comes to you for specific advice about the kind of exercise she can do whilst pregnant. She is concerned about the type of exercise she can carry out without negatively affecting the health of her baby. Over the last couple of years she has increased her body fat and is keen to reduce her weight after giving birth. Her weekly physical activity involves walking her dog three times per week for 30 minutes. Her weight is 70 kilos with 35% body fat. Research this case study and answer the questions provided so you can discuss the scenario in class.

### **Case study 7 John - Overweight teenager**

An obese, inactive adolescent male of 14 years comes to you for specific advice about the kind of exercise he can do to lose weight. He has used starvation diets in the past but has never been successful in keeping the weight off. His present diet is high in processed foods and low in plants and fruit. Over the last 2 years he has increased his body fat and is now keen to reduce his weight. He has no weekly physical activity apart from a short walk to school each day. His weight is 86 kilos with 35% body fat. Research this case study and answer the questions provided so you can discuss the scenario in class.

### **Case study 8 Frank - Cardiac rehabilitation**

An overweight male of 53 years comes to you for specific advice about the kind of exercise he can do to help him avoid another infarct. He suffered a mild myocardial infarction which did not result in any permanent damage to the heart or other organs. Over the last 10 years he has suffered from hypertension and dyslipidemia and is on a calcium channel blocker (Verapamil) and a statin (Atorvastatin). He is also taking blood thinning medication (warfarin). He has no weekly physical activity but he is now consuming a healthy plant based diet. His weight is 92 kilos with 36% body fat. Research this case study and answer the questions provided so you can discuss the scenario in class.

**Remember:** Be prepared. Do some research into the area of the client. Think about the Lifestyle Change Model to develop your case study. Plan what aspects of assessment you would carry out. Think how you would educate your client about their disease or condition, and so forth.

## **COURSE EVALUATION AND DEVELOPMENT**

Each year feedback is sought from students about the courses offered in HESC and continual improvements are made based on this feedback. The Course and Teaching Evaluation and Improvement [CATEI] Process of the UNSW is the way in which student feedback is evaluated and significant changes to the course will be communicated to subsequent cohorts of students.

## **GENERAL INFORMATION**

Exercise Physiology is part of the School of Medical Sciences and is within the Faculty of Medicine. Steve and Yati's offices are located at 4 Arthur Street. General inquiries can be made to Sue Cheng at the Reception, located on the 2nd Floor of the Australian Graduate School of Business Building (office hours are 9.00 am - 5:00pm).

**Professor Nick Hawkins** is Head of SoMS and appointments may be made through his Administrative Assistant in Room MG149 in Wallace Wurth Building. The School Student Advisor **Ms Carmen Robinson** (9385 2464) is able to provide additional information on any courses offered by the School.  
Email: carmen.robinson@unsw.edu.au

## **OFFICIAL COMMUNICATION BY EMAIL**

All students in the course HESC3581 are advised that e-mail is now the official means by which the School of Medical Sciences at UNSW will communicate with you. All email messages will be sent to your official UNSW e-mail address (e.g. z1234567@student.unsw.edu.au) and, if you do not wish to use the University e-mail system, you **MUST** arrange for your official mail to be forwarded to your chosen address. The University recommends that you check your mail at least every other day. Facilities for checking e-mail are available in the School of Medical Sciences and in the University library. Further information and assistance is available from DIS-Connect, ph. 9385 1777. Free e-mail courses are run by the UNSW Library.

## **ATTENDANCE REQUIREMENTS**

**Attendance at practical classes/demonstrations is compulsory, and must be recorded in the class roll ON THE DAY OF THE CLASS.** It is your responsibility to ensure that the demonstrator records your attendance and no discussions will be entered into after the completion of the class. Satisfactory completion of the work set for each class is essential. It should be noted that non attendance for other than documented medical or other serious reasons, or unsatisfactory performance, during the session may result in an additional practical assessment exam or ineligibility to pass the course.

## **Online Teaching Resources**

Lecture notes, laboratory questions, additional readings, marks, announcements etc. will be placed on WebCT: <http://vista.elearning.unsw.edu.au/>. You will need to click through the "UNSW" at the left, then click the "Log on" button and enter your Unipass credentials (zStudentNo. and password). After logging on to WebCT, look for the course HESC3581. You should have access to it if you are properly enrolled. It is advisable to check this website regularly to access materials and check for announcements.

## HANDWRITING

Students whose writing is difficult to understand will disadvantage themselves in their written assessment. Make every effort to write clearly and legibly. Do not use your own abbreviations. You are advised to hand in word processed assignments.

## SPECIAL CONSIDERATION

**Please note the following Statement regarding Special Consideration.**

*If you believe that your performance in a course, either during session or in an examination, has been adversely affected by sickness or for any other reason, you should notify the Student Central 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 days after an examination in a course will only be considered in exceptional circumstances.***

*When submitting a request for special consideration you should provide all possible supporting evidence (eg medical certificates) together with your registration number and enrolment details. Consideration request forms are available from the Student Centre in the Chancellery and from Course Offices. In exceptional circumstances further assessment may be given. **If you believe you might be eligible for further assessment on these grounds, you should contact the Course Authority or the relevant Course Office as soon as possible.** Please refer to UNSW Student Gateway @ [www.student.unsw.edu.au](http://www.student.unsw.edu.au) for further details regarding special consideration.*

## MISSED EXAMS

If in any circumstances you unavoidably miss an examination, you must inform the Registrar and also contact the relevant Course Office immediately. 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 with sufficient time.

**PLEASE NOTE** that if you miss any examinations for medical reasons you must lodge a medical certificate with New South Q within **3 DAYS** (refer to UNSW Student Gateway @ [www.student.unsw.edu.au](http://www.student.unsw.edu.au) for further details). Your request for consideration will be assessed and a deferred exam may be granted. You cannot assume you will be granted supplementary assessment. The deferred exam may include an oral element.

## MEDICAL CERTIFICATES

Students who miss practical classes due to illness or for other reasons must submit a copy of medical certificates or other acceptable documentation to the course coordinator **Dr. Steve Boucher in 4 Arthur Street**. Certificates should be lodged no more than seven (7) days after an absence. Certificates lodged after seven days will not be accepted. The following details must be attached: Name, Subject number, Group number, Date of the class, Name of class/es missed.

## STUDENT SUPPORT SERVICES

Those students who have a disability that requires some adjustment in their teaching or learning environment are encouraged to discuss their study needs with the course coordinator prior to, or at the commencement of, their course, or with the Equity Officer (Disability) in the Equity and Diversity Unit (**EADU**) **9385 4734**. Issues to be discussed may include access to materials, signers or note-takers, the provision of services and additional exam and assessment arrangements. Early notification is essential to enable any necessary adjustments to be made.

## STUDENT RIGHTS AND RESPONSIBILITIES

Refer to UNSW Student Gateway @ [www.student.unsw.edu.au](http://www.student.unsw.edu.au)

### PLAGIARISM

The School of Medical Sciences will not tolerate plagiarism in submitted written work. The University regards this as academic misconduct. Evidence of plagiarism in submitted assignments, etc. will be thoroughly investigated and may be penalised by the award of a score of zero for the assessable work. Evidence of plagiarism may result in a record being made in the Central Plagiarism Register and the Faculty Students Ethics Officer being notified.

#### What is Plagiarism?

Plagiarism is the presentation of the thoughts or work of another as one's own.\*

Examples include:

- direct duplication of the thoughts or work of another, including by copying material, ideas or concepts from a book, article, report or other written document (whether published or unpublished), composition, artwork, design, drawing, circuitry, computer program or software, web site, Internet, other electronic resource, or another person's assignment without appropriate acknowledgement;
- paraphrasing another person's work with very minor changes keeping the meaning, form and/or progression of ideas of the original;
- piecing together sections of the work of others into a new whole;
- presenting an assessment item as independent work when it has been produced in whole or part in collusion with other people, for example, another student or a tutor; and
- claiming credit for a proportion a work contributed to a group assessment item that is greater than that actually contributed.†

For the purposes of this policy, submitting an assessment item that has already been submitted for academic credit elsewhere may be considered plagiarism. Knowingly permitting your work to be copied by another student may also be considered to be plagiarism. Note that an assessment item produced in oral, not written, form, or involving live presentation, may similarly contain plagiarised material. The inclusion of the thoughts or work of another with attribution appropriate to the academic discipline does *not* amount to plagiarism. The Learning Centre website is main repository for resources for staff and students on plagiarism and academic honesty. These resources can be located via: [www.lc.unsw.edu.au/plagiarism](http://www.lc.unsw.edu.au/plagiarism)

The Learning Centre also provides substantial educational written materials, workshops, and tutorials to aid students, for example, in:

- correct referencing practices;
- paraphrasing, summarising, essay writing, and time management;
- appropriate use of, and attribution for, a range of materials including text, images, formulae and concepts.

Individual assistance is available on request from The Learning Centre.

Students are also reminded that careful time management is an important part of study and one of the identified causes of plagiarism is poor time management. Students should allow sufficient time for research, drafting, and the proper referencing of sources in preparing all assessment items.

\* Based on that proposed to the University of Newcastle by the St James Ethics Centre.  
Used with kind permission from the University of Newcastle  
† Adapted with permission from the University of Melbourne.

### **APPEAL PROCEDURES**

Refer to UNSW Student Gateway @ [www.student.unsw.edu.au](http://www.student.unsw.edu.au).

### **GRIEVANCE RESOLUTION OFFICER**

In case you have any problems or grievance about the course, you should try to resolve it with the Course Coordinator (Dr Steve Boutcher ph:9385 2877) or the Head of School, Prof Nick Hawkins. If the grievance cannot be resolved in this way, you should contact the School of Medical Sciences Grievance Officer, Dr P. Pandey (9385 2483, [P.Pandey@unsw.edu.au](mailto:P.Pandey@unsw.edu.au)).