



THE UNIVERSITY OF NEW SOUTH WALES

Health and Exercise Science
School of Medical Sciences
Faculty of Medicine

COURSE: HESC1511 Lifestyle, Kinanthropometry and Health

Lectures:	Tuesday 11 am - 12 pm	CLB1
	Thursday 4 - 5 pm	CLB1
Laboratories:	Tuesday 1 – 3 pm	Goodsell 225
	Tuesday 3 – 5 pm	Goodsell 225
	Thursday 9 – 11 am	Goodsell 225
	Thursday 11 am – 1 pm	Goodsell 225

Course Coordinator: Dr. E. Gail Trapp

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Office hours: Wednesday 10.00-11.00 am or by appointment

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HESC1511 Course Information

Lifestyle, Kinanthropometry and Health (HESC1511) is a 1st year Health and Exercise Science course worth six Units of Credit (6 UOC). The course is required as 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 Introductory Exercise Science (HESC1501).

OBJECTIVES OF THE COURSE

This course will introduce students to the principals of planning and designing exercise programs for strength, flexibility and cardiovascular endurance. Students will design and implement a fitness program for one of their fellow students.

Students will be able to:

1. describe the basic principles underlying the design of a safe exercise program for an apparently health adult
2. apply the principles for training program design and delivery for healthy populations
3. acquire basic skills in exercise programming
4. acquire basic skills in planning and leading a group exercise session

Building on basic skills learned in HESC1501, the objectives of this course are to:

- a) apply basic fitness and health assessments and screening tools
- b) design and implement an exercise program for a healthy adult
- c) design and implement a group exercise session

COURSE STRUCTURE and TEACHING STRATEGIES

This is a 6 unit course and consists of:

- 2 lectures per week
- practical/tutorial sessions of up to 2 hours per week.

Formal learning activities occur on Tuesday and Thursday as described on page 1 of this document. 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 hrs of study and learning activities. The formal learning activities are approximately 48 hours throughout the semester and completion of the main assessment item will make heavy demands on your time. Students are expected (and strongly recommended) to do additional study.

Lectures will provide you with the concepts and theory essential for understanding the principals underpinning programming exercise for apparently healthy individuals. The acute and chronic responses to resistance and endurance training will be outlined in the lectures. Flexibility training will be discussed along with safety in exercise and contraindications to exercise.

To assist in the development of practical skills and exercise technique practical classes 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 are relevant to your development as professional Exercise Physiologists.

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 enthuses 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, journal articles and Web based sources.

Your practical classes will be directly related to the lectures and it is essential to prepare for practical classes before attendance. It is up to you to ensure you perform well in each part of the course; preparing for classes; completing assignments; studying for exams and seeking assistance to clarify your understanding.

STUDENT LEARNING OUTCOMES

HESC1511 will develop the following 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 subject students should:

1. describe the basic principles underlying the design of a safe exercise program for an apparently healthy adult
2. apply the principles for training program design and delivery for healthy populations
3. acquire basic skills in exercise programming
4. acquire basic skills in planning and leading a group exercise session

ASSESSMENT PROCEDURES

TASK 1 – EXERCISE PROGRAMMING FOR HEALTHY INDIVIDUALS **40%** **(Week 4 and Week 11)**

This assignment is designed for you to put into practice the basic principles of programming for healthy individuals. In pairs you will do basic fitness assessments including posture, body composition, weight, height and strength. You will be required to make a record of your own diet over three days (two weekdays and one weekend day). Your dietary intake information is given to your partner who will then analyse the macronutrient and micronutrient content using SERVE or FOODWORKS software. SERVE and FOODWORKS software can be found on computers in Room 225 in Goodsell Building. You will then give your partner a one page (maximum) double spaced recommendation for improving their diet. **This part of the assignment is to be handed in Week 3** and will contain the food intake, the computer analysis and your one page recommendation.

Using the dietary and fitness assessment information you have collected, and in discussion with your partner, you will plan a training program for your partner based on their needs and fitness goals. You are advised to start work on this project as early as possible. After six weeks of exercise training, repeat the tests you used to assess your partner's fitness. Your final report will include a description of the fitness tests that you used and results for the pre- and post treatment assessments as well as a detailed description of the program and the exercises you prescribed.

TASK 2 – PRACTICAL PRESENTATION **30%** **(Weeks 12 & 13)**

The purpose of this activity is to provide you with an opportunity to put into practice the principles of exercise programming in a group setting. In groups of four, students will plan a 20 min exercise session for the rest of the class. It is compulsory for all students to attend these sessions. The planning document will be handed in as part of the assessment and include the aims of the exercise session and the activities used to fulfil those aims. The group of four will then act as instructors for the class. One student will conduct the warm up, another the conditioning phase, another the resistance activities and another, the cool down and flexibility exercises. Information on planning and structuring the exercise session will be provided in practical sessions and lectures.

TASK 3 - FINAL EXAM
(Exam Period)

30%

The purpose of the final exam is to test your understanding of the concepts covered in the ENTIRE COURSE. Material from lectures, tutorials, laboratories and readings may be assessed. The format will be multiple choice and short answer questions. The exam will be held during the end of session exam period.

Written assessment tasks must be accompanied by a signed plagiarism form and handed to the lecturer in the second lecture period of the week they are due. Penalties apply for late submissions.

PENALTIES FOR LATE SUBMISSION OF WORK

Any extension must be applied for in advance of the due date.

In cases where an extension has NOT been granted, the following penalties will apply:

- For assignments submitted after **4.00pm** on the due date, a penalty of 50% of the maximum marks available for that assignment will be incurred.
- Assignments received two (2) or more days after the due date **will not be allocated a mark**, however, these assignments **must** still be submitted to pass the unit.

MARKING CRITERIA

TASK 1 – EXERCISE PROGRAMMING FOR HEALTHY INDIVIDUALS

<i>Assignment component</i>	<i>How do I achieve top marks?</i>	<i>Mark for this section (100%)</i>
Dietary analysis	Use SERVE or FOODWORKs to analyse the diet and include the dietary intake for three days. Compare food intake with the RDIs for macro- and micronutrients. Make sure the diet matches the recommendations for macronutrient composition and fibre intake.	10
Diet recommendations	Compare your partner's intake with the RDIs and examine their actual intake. Comment appropriately (eg. Are they getting 5 serves of vegetables per day?) and make recommendations to improve the quality of their food intake. Maximum one page.	10
Fitness Testing	Choose and administer appropriate tests for your partner, do preexercise screening and assess their needs. Present the pre- and post training tests in tabular form and compare with normative data where appropriate.	20
The Exercise Program	Plan and implement a resistance training program for your partner. Show how you have incorporated overload and variety. Illustrate or explain the exercises prescribed.	30
Evaluation	This should be a maximum of one page. Discuss your partner's post training results. Discuss problems you faced (eg. Poor motivation/adherence, boredom) and how you overcame them. What were the successful aspects? What changes would you make to improve the program?	20
Presentation	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.	10

TASK 2 – PRACTICAL PRESENTATION

<i>Assignment component</i>	<i>How do I achieve top marks?</i>	<i>Mark for this section (100%)</i>
Planning document	Plan the program so that it is safe and enjoyable for the population you have selected. Your planning document will outline the aims of the activities, the activities, and the equipment required to achieve those aims. The planning document must be clear, concise, easy to read and contain no spelling, grammatical or typographical errors.	20
Warm up	Are the activities appropriate for achieving your stated aims? Do you communicate well? Are the activities fun? Safe? Is this section structured so that the activities flow in a logical sequence? Is the equipment you use appropriate to the activity?	20
Aerobic conditioning	Are the activities appropriate for achieving your stated aims? Do you communicate well? Are the activities fun? Safe? Is this section structured so that the activities flow in a logical sequence? Is the equipment you use appropriate to the activity?	20
Strength/muscle endurance conditioning	Are the activities appropriate for achieving your stated aims? Do you communicate well? Are the activities fun? Safe? Is this section structured so that the activities flow in a logical sequence? Is the equipment you use appropriate to the activity?	20
Cooldown	Are the activities appropriate for achieving your stated aims? Do you communicate well? Are the activities fun? Safe? Is this section structured so that the activities flow in a logical sequence? Is the equipment you use appropriate to the activity?	20

RECOMMENDED TEXT

Griffin, J.C. (2006). *Client Centered Exercise Prescription* (2nd ed.), Human Kinetics, Champaign, Ill.

SUGGESTED REFERENCES

Abernethy, B., Hanrahan, S.J., Kippers, V., Mackinnon, L., T., & Pandy, M. G. (2005). *The Biophysical Foundations of Human Movement*, 2nd ed., Palgrave Macmillan, South Yarra.

Batman, P. & Van Capelle, M. (1994) *Exercise Analysis Made Simple: a step by step approach*, 4th ed., Fit 4 U Publications, Sydney.

Dwyer, G.B. & Davis, S.E. (2005). *ACSM's Health-Related Physical Fitness Assessment Manual*, Lippincott, Williams & Wilkins, Phil.

Egger, G. & Champion, N. (1993) *Fitness Leader's Handbook*, 3rd ed., Kangaroo Press, Sydney

Gore, C.J. & Edwards, D.A. (1992). *Australian Fitness Norms: A Manual for Fitness Assessors*, Health Development Foundation, Adelaide.

Kennedy, C.A. & Yoke, M.M. (2005). *Methods of Group Exercise Instruction*, Human Kinetics, Campaign, Ill.

McArdle, W. D., Katch, F. I., & Katch, V. L. (2006). *Exercise Physiology: Energy, Nutrition, and Human Performance*, 6th ed., Lippincott, Williams and Wilkins, Phil.

NHMRC (2006). Nutrient Reference Values for Australia and New Zealand Including Recommended Dietary Intakes. <http://www.nhmrc.gov.au> (follow the links to publications)

Norton, K. & Olds T. (eds.) (1996). *Anthropometrica: a textbook of body measurement for sports and health courses*. UNSW Press, Syd.

Additional articles of interest will be placed on the course pages on WebCT Vista.

COURSE EVALUATION AND DEVELOPMENT

Each year feedback is sought from students about the courses offered in Health and Exercise Science 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

Health and Exercise Science is part of the School of Medical Sciences and is within the Faculty of Medicine. It is located on the 2nd floor of the John Goodsell building. General inquiries can be made at the School of Medical Sciences Reception, located on the Ground Floor of the Wallace Wurth (office hours are 9.00 am - 5:00pm).

Professor Nick Hawkins is Head of School and appointments may be made through his Administrative Assistant, Susan Dacre (s.dacre@unsw.edu.au) in Wallace Wurth MG 149.

Dr. Ben Barry is the Program Authority for HESC and can be found in Room 243 John Goodsell Building (9385 8709). Email ben.barry@unsw.edu.au.

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 HESC1511 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 UNSW IT Service, ph. 9385 1333 or email servicedesk@unsw.edu.au . Free e-mail courses are run by the UNSW Library. Announcements will also be made on Web CT Vista so it is in your interest to check the website regularly.

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 nonattendance for other than documented medical or other serious reasons, or unsatisfactory performance, for more than one practical class during the session may result in an additional practical assessment exam or ineligibility to pass the course.

BEHAVIOUR IN PRACTICAL CLASSES

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

- Punctual arrival is expected.
- Turn-off mobile phones before entering the class (mobile phones must not be used or answered during the class)
- Enclosed shoes are compulsory.

Students must take due care with biological and hazardous material and make sure all equipment is left clean and functional. Those who don't adhere to these basic laboratory rules will be marked absent.

PRACTICAL CLASSES

Students are required to familiarise themselves with the experimental procedure, as recorded in the practical manual, before attending each class. In the interests of safety, special attention should be paid to any precautionary measures recommended in the notes. If any accidents or incidents occur they should be reported immediately to the demonstrator in charge of the class who will record the incident and recommend what further action is required.

NOTICEBOARDS

Noticeboards for this course can be found on the 2nd floor of the John Goodsell building. Current timetables and information relevant to you will be displayed here. It is your responsibility to check these regularly.

COMPUTING FACILITIES

A small computer facility is available to students in Room M211 in Wallace Wurth. Access may be obtained by taking your student card to the Facilities Management Office on the second floor of the Matthews Building. Your student card will then allow you to operate the security lock on the door. Hours of access are 8:30am - 6:00pm. However, priority is given to scheduled classes and meetings. NB: The School would like to advise you that a record is kept of students entering the computer facility. Students will be held responsible for any damage.

Teaching Resources on WebCT Vista

Health and Exercise Science has chosen to use the University's central WebCT Vista service to provide teaching material for all of its courses. To access these materials, either point your browser to: <http://vista.elearning.unsw.edu.au/> or go to the School's home page at: <http://medicalsciences.med.unsw.edu.au/> then select "Current Students" from the menu bar and click on WebCT, under "Quicklinks" in the left column. You will need to click through the "UNSW" at the left, then click the "Log on" button and enter your Unipass credentials (zStudent No. and password). After logging on to WebCT, look for the course HESC1511. You should have access to it if you are properly enrolled. The central WebCT service uses WebCT Vista. This makes extensive use of "pop-up" windows. Most browsers now block such pop-ups so you will need to allow pop-ups on this site for it to work properly for you. The central WebCT service recommends the use of the "Firefox" browser when accessing WebCT. You can make use of iletecture recordings taken of the lectures which are available on WebCT. Lecture notes will also be made available on WebCT either before or shortly after the lecture.

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. Word processed documents are preferable where possible.

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 Registrar and ask for special consideration in the determination of your results. Such requests should be made as soon as practicable after the problem occurs. **Applications made more than three 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 at 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 Health and Exercise Science course office in MG 14 Wallace Wurth 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 at 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 a significant oral element.

MISSED TESTS

If you unavoidably miss a test in HESC1511, you must inform the course coordinator immediately. You must supply adequate documentation (medical certificate) to be considered for any supplementary tests. **Such tests may consist of an oral or written examination that may be held during the first week of the stuvac period.**

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 Gail Trapp in Room 241 Goodsell Building**. 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 at 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 student'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;
- 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

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 at 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 Gail Trapp ph:9385 8313). 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).

LECTURE AND PRACTICAL CLASS OVERVIEW

Week	Lecture	Readings	Laboratories
2 July 27	Introduction Behaviour Change Motivational Interviewing	Griffin Ch. 1 and 2	
	Nutrition	McArdle Ch.1-3	
3 Aug 3	Body Composition	Griffin Ch.4 Norton Ch. 2	Diet analysis Posture Interviewing Body composition
	Screening and Contraindications to Exercise	Griffin Ch. 3	
4 Aug 10	Exercise analysis	Batman	Exercise analysis and core stability
	FITT Principal	Griffin Ch.6	
5 Aug 17	Field Tests of Fitness	Griffin Ch.4	Resistance Training 1
	Acute Response to Resistance Training	Griffin Ch.7	
6 Aug 24	Chronic adaptations to Resistance Training	Griffin Ch.7 Deschenes (2002) Kraemer (2004)	Resistance Training 2
	Resistance Training Programming	Griffin Ch.7 Deschenes (2002) Kraemer (2004)	
7 Aug 31	Acute Response to Endurance Training	Griffin Ch.6	CV Training
	Chronic Adaptations to Endurance Training	Griffin Ch.6	
Sept 7	Break		
8 Sept 14	Endurance Training Programming	McArdle Ch.21	Flexibility Training
	Flexibility Training	Griffin Ch.8	
9 Sept 21	Considerations for Planning Group Exercise		Planning Group Exercise
	Safe Exercise	ACSM	
10 Sept 28	Functional and Core Exercise		
	Adherence and Burnout		
11 Oct 5	Supplementation and Ergogenic Aids	Griffin Ch.9 McArdle Ch.23	
	OHS		
12 Oct 12	Student presentations		Student presentations
13 Oct 19	Student presentations		Student presentations