UNSW

THE UNIVERSITY OF NEW SOUTH WALES

Exercise Physiology Program
School of Medical Sciences
Faculty of Medicine

HESC2501

Exercise Physiology

Semester 2, 2011
Course Outline

Table of Contents

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Course details

Credit Points: 6 UOC

Course Prerequisites / Assumed Knowledge

BIOC2181 Fundamentals of Biochemistry; PHSL2501 Human Physiology A

Course Description

The focus of this course in on the physiological adaptations of the respiratory, cardiovascular, endocrine and musculoskeletal systems to acute and chronic exercise, building on knowledge and skills developed in Human Physiology A and concurrently developed in Human Physiology B. Specific adaptations to the different component of exercise (intensity, duration, type) will be presented. Skills and techniques used to monitor and analyse those adaptations will be developed throughout this course, e.g. submaximal and maximal exercise tests, ECG, spirometry.

Aims of the Course

1. To encourage a comprehensive understanding of the human physiological response (energy utilisation, endocrine, cardiovascular, respiratory, musculoskeletal) to both acute and repeated bouts of exercise
2. To provide knowledge of measurement principles and techniques commonly utilised in exercise physiology
3. To provide confidence in performing basic measurements in exercise testing

Student Learning Outcomes

This course will enable students to explore and gain further understanding of the response of the human body to physical activity with an emphasis of their application to real situations in the field of Exercise Physiology. This course provides the fundamental knowledge and promotes the development of skills which will work towards the realisation of the overall Bachelor of Exercise Physiology program objectives and skills of an Exercise Physiologist.

At the end of the course you should be able to:

- Have developed knowledge of the changes in energy utilisation, endocrine, cardiovascular, respiratory and musculoskeletal systems in response to acute or repeated bouts of exercise.
- Demonstrate basic competencies in skills associated in exercise testing (eg. heart rate and blood pressure measurement; the collection of blood by fingerprick for the analysis of lactate).
- Communicate effectively through written reports of scientific laboratory experiments.

Graduate Attributes

- Understand the relationship between physical activity and health
- Deliver lifestyle change programs that use exercise for the primary prevention of disease and the management of chronic disease
- Apply clinical skills and knowledge relevant to cardiopulmonary, metabolic, musculoskeletal and neuromuscular rehabilitation
- Communicate effectively with patients, colleagues and other health professionals

Rationale for the inclusion of content and teaching approach

How the course relates to the Exercise Physiology profession – The content allows students to develop a fundamental knowledge of the human physiological response to physical activity. This forms the basis upon which further knowledge and skills enable an Exercise Physiologist to deliver lifestyle programs that use exercise with an aim of promoting disease prevention and rehabilitation of chronic disease. This course also enables students to develop the skills of communication and critical thinking. It reflects the position of the course convenor that their practice within the field will require these skills for ongoing development.

How the course relates to other courses in the Exercise Physiology program – The course will build upon material presented in earlier courses in the program, in particular Introductory Exercise Science (HESC1501), Exercise Programs and Behaviour (HESC1511), as well as Human Physiology A (PHSL2501). The skills and knowledge developed in this course will provide a strong base in exercise physiology essential for the clinically oriented courses offered in third stage such as Physical Activity and Health (HESC3504) and Clinical Exercise Physiology (HESC3541).

Teaching strategies

Lectures – Lecture notes are available in PDF format on Blackboard:
http://lms-blackboard.telt.unsw.edu.au/webapps/portal/frameset.jsp

Lectures are considered by the course convenor to be only a summary of the concepts and theory essential for meeting the course objectives and student learning outcomes outlined above. In order to do well in this course it is **ABSOLUTELY ESSENTIAL** that students make use of other resources such as the recommended and additional textbooks (page 8) and Web based sources.

Laboratories – Students are expected to behave in an ethical, socially responsible and professional manner within the laboratory class. Punctual arrival is expected as important information including safety precautions are discussed at the beginning of each class and late students will be refused entry and marked as absent. Turn-off mobile phones before entering (mobile phones are not to be used or answered during the class). The use of computers for work not related to the current laboratory is not permitted in class. Eating is not permitted, however students may bring drinking water in a suitable unbreakable container. Students are required to bring to class, a printed copy of the laboratory which they are to download from BLACKBOARD. It is recommended that students take the time to read the laboratory before coming to the designated laboratory session. All students must come prepared for active participation wearing clothing which is suitable for exercise, such as shorts or track pants, T-shirt or light sweater, and runners or cross-trainers. Enclosed footwear is compulsory. Students who do not have suitable attire with them (eg. open footwear) or do not have a legitimate reason for not participating (eg. medical complaint or injury) will be refused entry to the class and will then be marked absent. Students must take care with biological and hazardous material and leave all equipment clean and functional. Those who don't adhere to these basic laboratory rules will be marked absent.

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.

Assessment

	Weight	Due Date
ASSESSMENT TASK 1 – MID SEMESTER EXAM	**20%**	Week 7
ASSESSMENT TASK 2 – END OF SESSION EXAM	**40%**	End semester exam period
ASSESSMENT TASK 3 –OSCE	**20%**	Weeks 11-13
ASSESSMENT TASK 4 – LABORATORY ASSIGNMENTS	**20%**	Week 6 & 7 Week 9

Assessment Task 1 – *MID SEMESTER EXAM*

The MID SEMESTER EXAM is a written exam comprised of multiple choice and/or short answer questions, and analytical interpretation of typical experimental situations. It will cover lecture and laboratory material from weeks 1-6. It will be held in week 7 during the lecture timeslot, and is of 1 hr duration (writing time). In the weeks prior to the mid-semester exam students will be allocated by the course convenor to either one of two rooms (TBA) to allow for adequate spacing between students. Students are required to attend the exam in the room to which they have been allocated as each particular room will contain a given number of exam papers for allocated students only. No extra time will be given to a student who has arrived at the wrong room and needs to find their way to the other room to sit the exam. As each room will be supervised by one staff member only, there will be no provision made for students who wish to temporarily exit the exam room unsupervised after the exam has commenced for whatever reason (eg. visiting bathroom). Students are only permitted to leave the room after they have submitted their mid-semester exam for assessment.

Assessment Task 2 – *END OF SESSION EXAM*

The END OF SESSION EXAM *is a* written exam comprised of multiple choice and/or short answer questions, and analytical interpretation of typical experimental situations. It will be held during the examination period following the end of semester, and will cover ALL lectures and laboratory material from the ENTIRE semester.

Assessment Task 3 –*OJECTIVE STRUCTURED CLINICAL EXAMINATION (OSCE)*

The OSCE will be held in weeks 12 &13 during the laboratory timeslot and will be based on the assessment of the student's ability to perform various practical skills commonly used in exercise physiology. Each student will be required to attend on only one of these weeks. Further information confirming the location and times of the skills exam for each individual student will be provided in the weeks prior to the exam by the course convenor.

EACH student will be required to perform the skills listed below, under the supervision of an examiner. Broadly the assessment is based on a given student's ability to perform the skill with regard to the following three catergories:

(1) *technique* [ability to correctly perform the measurement],
(2) *equipment set up*, *safety*,
(3) *communication* [the ability to effectively communicate verbally to the client]

The exam venue will be divided into 8 stations.

More specifically the skills which could be assessed during the examination are:

Cardiovascular (1,2)
- the manual and electronic measurement of resting heart rate using a heart rate monitor
- the measurement of resting and exercise systolic and diastolic blood pressure

Blood collection (3)
-the collection of blood from a subject by fingerprick
- the collection of blood from a subject following an exercise bout

Respiratory Function (4)
- The measurement of vital capacity and $FEV_{1.0}$

Cardiovascular Function (5,6)

-the correct positioning of a subject on the Monark bicycle ergometer in preparation for exercise
-the adjustment of the setting on the bicycle to allow the subject to exercise at a power output designated by the examiner
- the protocols used to assess sub-maximal fitness in healthy populations
- the calculation of VO^2max from sub-maximal heart rate and workload data.
- the set up or assessment of VO_2 max, using the metabolic cart

Anaerobic Capacity (7)

- the measurement of peak power
- the measurement of anaerobic capacity
- the calculation of fatigue index

ECG (8)

- the correct placement of the 12 ECG leads for ECG measurement
- a description of a protocol used in a 12 lead ECG stress test

Assessment Task 4 – *LABORATORY ASSIGNMENTS*

Laboratory One (1) is to be submitted in week 5 for a brief review and so that students can receive feedback. Laboratory 2, 3 and 4 are to be written up and submitted for assessment in weeks 6/7 and 9. Laboratory 5 and 6 must be completed and content will be assessed in either the OSCE or Final Examination.

Marking Criteria for Laboratory Assignments

As indicated above, three (3) laboratories must be written up and submitted. To achieve the highest possible marks each student must do the following:

Coversheet page: Complete a coversheet, including your name, laboratory group and assigned tutor, and attach it to the front of the assignment. **Ensure you sign the declaration**. Assignments without the appropriate SIGNED coversheet will not be marked.

Introduction and methods: must be included in the report simply for completeness, please attach the introduction and method which is made available to you on BLACKBOARD and which you have downloaded and brought to class. The reason for keeping the laboratory in its entire form is that it will serve as a useful reference on which to look back on during this semester as revision for exams and during the later years of this degree.

Results: Tables (which are provided in the original assignment handouts) need to be completed with the numerical data obtained in class. Answers to any additional numerical calculations need to be completed and entered in the appropriate space provided in the table. The required graphs (as listed in the original laboratory handouts) need to be completed, with correctly labelled headings and axis labels.

Discussion: Indicate your answer to each of the short answer questions directly below each question in the laboratory handout. Answers may range between a sentence, to a small paragraph as indicated by the question. Answers need to be concise and grammatically correct.

Referencing: Particular attention and marks will also be given to correct referencing within the document (see APA referencing guidelines). You need to provide the correct reference within the answer to the question in the discussion section and also include the full reference in the reference list at the end of the assignment.

Submission of Assessment Tasks

Laboratory assignments are to be submitted as an electronic version via BLACKBOARD (Turn it in).

Penalties for late submission of assignments – In cases where an extension has NOT been granted, the following penalties will apply:

- For laboratories submitted after **10 am** 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 time/date **will not be allocated a mark,** however, these assignments **must** still be submitted to pass the unit.

Academic honesty and plagiarism

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

Referencing for the laboratory assignment

Referencing is a process that identifies the sources of information used in your assignment. Some of the main purposes of referencing are: to justify/support the position you take in your assignment, to show the arguments put forward by different writers, and to allow the reader to locate the sources used. Please refer to examples cited below. Further information can be found at http://www.apastyle.org

Course schedule HESC 2501, 2011

Wk	Wk begin	Laboratory (2 hrs) **Wed 2-4,4-6.00pm Wallace Wurth 202**	Lecture 1 (1 hr) **Thursday 11-12pm Biomedical Th D**	Lecture 2 (1 hr) **Friday 11-12pm Biomedical Th C**	Lecture 3 (1 hr) **Friday 12-1.00pm Biomedical Th C**	Suggested Readings McArdle et al (2010).
2	25th July		**2.1: Introduction to Exercise Physiology.** Basic muscle structure and function. ***Lecturer: FN***	**2.2: Metabolism**, ATP and the basics of energy generation ***Lecturer: CM***	**2.3: Energy transfer in the body** Glycolysis ***Lecturer: CM***	Ch 18: Skeletal muscle structure and function. CH 5: Intro to energy transfer. CH 6: Energy transfer in the Body.
3	1st Aug	***LAB 1***: **Measurement of Energy Expenditure** - Tut: How to write a lab report - Assessment Wingate test - Assessment of blood lactate - Tutorial – Revision techniques ***Venue: Arthur St Small Group*** ***Tues 10-12*** *(10A, 10B)* ***Wed 2-4*** *(12B-E)****,4-6****(14B-E)*	**3.1: Energy transfer in the human body**: Krebs cycle Electron transfer system ***Lecturer: CM***	**3.2: Energy Sources for Exercise** Energy release from carbohydrate, fat and protein ***Lecturer: CM***	**3.3: Energy transfer during exercise.** Immediate: ATP-PCr Short-term: Lactic acid system Long-term: Aerobic system Intro to Measurement of VO_2 max for Lab 2. ***Lecturer: FN***	Ch 6: Energy transfer in the body Ch 7: Energy transfer during exercise.
4	8th Aug	***LAB 2***: **The VO_2 max** *Group: 10AB, 12BC, 14BC* *LAB 1 Submission for feedback only* ***Venue: Arthur St Small Group*** ***Tues 10-12(10A& 10B)*** ***Wed 2-4 (12BC),4-6 (14BC)***	**4.1**: Measurement of **human energy expenditure,** Calorimetry, RQ, RER, BMR, ***Lecturer: GT***	**4.2** Measurement of **human energy expenditure,** Energy expenditure during exercise METS ***Lecturer: NvD***	**4.3**: Measurement of **energy expenditure during exercise.** Immediate: power test Short-term: anaerobic power Long-term: aerobic capacity Intro to Lab 3 ***Lecturer: FN***	Ch 8-9 Measurement of human energy expenditure. Ch 11: Energy expenditure during exercise. **LAB REPORT 1 DUE**: *Tuesday 9th: 10AB* *Wed 10th: 12B-E, 14B-E*
5	15th Aug	***LAB 2***: The **VO_2max** *Group: 12DE, 14DE* *LAB 1 Submission for feedback only* ***Venue: Arthur St Small Group*** ***Wed 2-4 (12DE),4-6 (14DE)***	**5.1: Nutritional** basis of exercise fuel sources, carbohydrates, lipids, protein ***Lecturer: CM***	**5.2: Optimal Nutritional** for sports performance Fueling energy supply pre, during and post exercise. ***Lecturer: CM***	**5.3: Specific Nutritional** requirements of athletes – endurance, strength training ***Lecturer: CM***	CH 1: CHO, Lipds, Proteins. Ch 3: Optimal nutrition for exercise.
6	22rd Aug	***LAB 3***: **CV response** to exercise. Exercise HR, BP, RPE, Exercise protocols. ***Venue: Wallace Wurth 202*** ***Wed 2-4.00pm14A*** ***Wed 4-6.00pm16A***	**6.1: Respiratory** response to exercise. Function, gas exchange, gas transport, ventilation during exercise, ventilation threshold, ventilation control. ***Lecturer: FN***	**6.2: Cardiovascular** response to exercise. HR, SV, CO, Regulation during exercise. ***Lecturer: FN***	**6.3: Cardiovascular** response to exercise. Circulation and blood flow. blood volume, hydration, oxygen delivery. Intro to Lab 4 ***Lecturer: FN***	**LAB REPORT 2 DUE**: *10AB, 12BC, 14BC* CH 12-14: Respiratory System. CH 15-17: Cardiovascular System

7	29th Aug	***LAB 4***: Cardio-Respiratory Response to Exercise. Determining the VT & LT during exercise. ***Venue: Wallace Wurth 202*** ***Wed 2-4.00pm, Wed 4-6.00pm***	**7.1: Cardiovascular** response to exercise. VO2 max, Blood pressure & regulation, Coronary circulation. ***Lecturer: FN***	**Mid-semester exam** **Room TBA** **Supervisors: NvD & FN**	Review of examination – feedback session. Assessment of Cardio-Respiratory Response to Exercise. Intro to Lab 5 ***Lecturer: FN***	**LAB REPORT 2 DUE**: *12DE, 14DE* CH 15-17: Cardiovascular
	5th Sept	**No formal classes this week**				
8	12th Sept	***LAB 5***: Assessment of Cardio-respiratory fitness & application to training. Maximal Aerobic Speed (MAS) Interval Training. ***Venue: Village Green UNSW*** ***Wed 2-4.00p, Wed 4-6.00pm***	**8.1:** Overview of the **ECG** signal, normal rhythm, reading the trace, measuring heart rate, ***Lecturer: FN***	**8.2:** ECG lead placement, response to **exercise**. ***Lecturer: FN***	**8.3:** ECG **anomalies:** arrhythmias, AV blocks, myopathies, ischemia, flutters ***Lecturer: FN***	**LAB REPORT 3-4 DUE** *All groups by Wednesday 14th September.*
9	19th Sept	***LAB 6***: The exercise and diagnostic ECG. ***Venue: Wallace Wurth 202*** ***Wed 2-4.00p, Wed 4-6.00pm***	Exercise Training principles ***Lecturer: FN***	Anaerobic and Aerobic system training response to exercise ***Lecturer: FN***	Training methodology ***Lecturer: FN***	Ch 21: Training for Anaerobic and Aerobic Power.
10	26th Sept	Skills Practice Week for OSCE Writing a training program TUT ***Venue: Arthur St Small Group*** ***Tues 10-12(10A)*** ***Wed 2-4 (12BC),4-6 (14BC)***	**Gender differences** in exercise physiology. ***Lecturer: FN***	Exercise Physiology of pregnancy and post-natal ***Lecturer: FN***	Exercise Physiology for **Children and Adolescents** ***Lecturer: NvD***	pdf Blackboard Ch 21: p485: Exercise During Pregnancy.
11	3rd Oct	Skills Practice Week for OSCE Writing a training program TUT ***Venue: Arthur St Small Group*** ***Tues 10-12(10B)*** ***Wed 2-4 (12DE),4-6 (14DE)***	Muscle fibre type and changes as a result of exercise ***Lecturer: SH***	Muscle adaptations to strength training and creatine supplementation ***Lecturer: SH***	Eccentric Exercise and DOMS ***Lecturer: BB***	CH 22: Muscle Strength
12	10th Oct	***OSCE*** EP Skill competency exam ***Venue: Arthur St Small Group*** ***Tues 10-12(10A)*** ***Wed 2-4 (12BC),4-6 (14BC)***	Muscle Fatigue ***Lecturer: BB***	Overtraining, immune system suppression, iron deficiency ***Lecturer: DK***	Exercise and the environment: altitude ***Lecturer: NvD***	CH 22: Muscle Strength CH 21: Overtraining (p483)
13	17th Oct	***OSCE*** EP Skill competency exam ***Venue: Arthur St Small Group*** ***Tues 10-12(10A)*** ***Wed 2-4 (12BC),4-6 (14BC)***	Exercise and the environment: thermal stress. ***Lecturer: JB***	Review of weeks 1 – 7 ***Lecturer: FN & NvD***	Review of weeks 8 – 13 ***Lecturer: FN & NvD***	CH 24-25: Altitude and thermal stress

Please note that there may be some slight alterations to the above schedule.
Lecturers:Dr. Fiona Naumann (FN), Dr. Ben Barry (BB), Ms Nancy van Doorn (NvD), Dr Chris Maloney (CM), Dr Gail Trapp (GT), Mr David Kennedy (DK), Stewart Head (SH), Dr John Booth (JB).
Demonstrators: Mr Andrew Keech (AK), Ms Tina Cheng (TC), Mr David Kennedy (DK), Mr Andrew Harb (AH), Ria Arnold (RA).
All lectures are held on: Thursday (11-12pm) in Biomedical Theatre D and Friday (11-1.00pm) Biomedical Theatre C.
Tutorials are held on Tuesday or Wednesday (2 hrs): at either Arthur St or Wallace Wurth Laboratory (202).

The mid-semester exam is held between 11.05 am - 11.55 am, consists of 50 min reading/writing time. Rooms to be advised.

Resources for students

Blackboard

Information about the course and a number of electronic study resources can be accessed via the UNSW Blackboard system. Blackboard is an internet-based set of Course Tools designed to enable online learning. You can access the system from the following site:
http://lms-blackboard.telt.unsw.edu.au/webapps/portal/frameset.jsp

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

UNSW Library

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

Reserve (MyCourse)

Many items (books and journal articles) set as recommended reading for courses will be located in Reserve, which is on Level 2 of the Main Library. Some of the journal articles will be available in electronic format via MyCourse. To search for these items, go to the library website catalogue and search for the course code.

Textbooks

McArdle WD, Katch FI, Katch VL (2010) Exercise physiology. Energy, nutrition and human performance. (7th edition) Lippincott, Williams and Wilkins. Philadelphia, USA.

Suggested Reference Books

- **American College of Sport Medicine (2005)** ACSM's health-related physical fitness assessment manual. Lippincott, Williams and Wilkins, Philadelphia, USA.
- **American College of Sport Medicine (2010)** ACSM guidelines for exercise testing and prescription. (8th edition) Lippincott, Williams and Wilkins, Philadelphia, USA.
- **Australian Sports Commission (2000)** Physiological tests for elite athletes. (Gore CJ. Editor) Human Kinetics, Champaign.IL., USA.
- **Baechle TR, Earle RW (2000)** Essentials of strength training and conditioning. Human Kinetics, Champaign IL., USA.
- **Batman P, van Capelle M (1994)** Exercise analysis made simple. FIT4U Publications, Sydney, Australia.
- **Batman P, van Capelle M (1995)** The exercise guide to resistance training. FIT4U Publications, Sydney, Australia.
- **Borer KT (2003)** Exercise endocrinology. Human Kinetics, Champaign, IL., USA.
- **Bourke L, Deakin V (2010)** Clinical sports nutrition. (4th edition) WCB/McGraw-Hill, Boston, USA.
- **Brooks GA, Fahey TD, White TP, Baldwin KM (2005).** Exercise physiology: human bioenergetics and its applications (4th edition). Mayfield Publishing Company, Mountain View, CA., USA.
- **Gore C, Edwards D (1992)** Australian fitness norms: a manual for fitness assessors. Health Development Foundation, North Adelaide, Australia.
- **Hampton JR (2008)** The ECG made easy. (7th edition) Churchill Livingstone, Edinburgh, UK.
- **Houston ME (2001)** Biochemistry primer for exercise science. (2nd edition) Human Kinetics, Champaign IL, USA.
- **Jones DA, Round JM (1990)** Skeletal muscle in health and disease. Manchester University Press, Manchester, UK.
- **Powers SK, Howley ET (2009)** Exercise physiology. (7th edition) WCB/McGraw-Hill, Boston, USA.
- **Reents S (2000)** Sport and exercise pharmacology. Human Kinetics, Champaign, IL., USA.

- **Robergs RA, Keteyian SJ (2003)** Fundamentals of Exercise Physiology. WCB/McGraw-Hill, Boston, USA.
- **Schell J, Leelarthaepin B (1994)** Physical fitness assessment in exercise and sport science (2nd edition) Leelar Biomediscience services, Sydney, Australia.
- **Wilmore JH, Costill DL (1999)** Physiology of sport and exercise. (2nd edition) Human Kinetics, Champaign.IL., USA.

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. The Course and Teaching Evaluation and Improvement (CATEI) Process of UNSW is the method used for the collection of feedback. At the end of the semester students will be asked by UNSW to provide feedback on HESC2501. Significant changes are then communicated to the following cohort of students. This year additional lecture timeslots have been introduced to provide more class student-teacher interaction time. The musculoskeletal section has been expanded. Extra opportunity for revision has been provided within the timetable. The applied topics of exercise and temperature regulation, and exercise at altitude have been reintroduced. A brand new lecture on molecular biology and exercise has been included as this is a newly emerging dynamic area of exercise science. The submission of laboratory reports for assessment have been reintroduced to provide additional feedback on student progress during semester.

Occupational Health and Safety

Class activities must comply with the NSW Occupational Health & Safety Act 2000 and the Occupational Health & Safety (OHS) Regulations 2001. It is expected that students will conduct themselves in an appropriate and responsible manner in order not to breach OHS regulations. Further information on relevant OHS policies and expectations is outlined at: http://www.hr.unsw.edu.au/ohswc/ohs/ohs_policies.html
All students must come prepared for active participation in laboratories. No open footwear is permitted. No consumption of food is permitted in class.

Examination procedures and attendance requirements

Attendance is expected at all lectures, practicals and tutorials for this course. Attendance at all practicals, tutorials and laboratories 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 lecturer within 7 days of the time period of the certificate's expiry. No consideration will be given after this time. Although lectures will be available on Blackboard, student participation is encouraged in both the lectures and the tutorials and these are important to attend.

Deferred Exams

If you miss an exam for medical reasons you must supply adequate documentation (including a medical certificate). Your request for consideration will then be assessed and a deferred exam may be granted. You cannot assume you will be granted supplementary assessment. The deferred exam may include a significant oral element. ***It is intended that supplementary exams for School of Medical Sciences courses in Semester 2, 2011 will be advised on the SOMS website.***

Special consideration in the event of illness or misadventure

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, misadventure, or other circumstances beyond your control, you should notify the Registrar and ask for special consideration in the determination of your results. Such requests should be made as soon as practicable after the problem occurs. **Applications made more than three working days after the relevant assessment will not be accepted except in TRULY exceptional circumstances.**

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

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

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

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

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