



UNSW
AUSTRALIA

Medical Sciences
Medicine

GENM0804

Lifestyle, Health and Disease

Summer 2016
Course Outline

CRICOS Provider Code 00098G

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

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

(or see "STUDENTS" tab at medicalsciences.med.unsw.edu.au)

Staff Contact Details

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Course details

Credit Points: 6 UOC

Course Prerequisites / Assumed Knowledge

There are no prerequisites for this course.

Course Description

The focus of this course is on lifestyle factors that affect physical and mental health. The course will examine the positive effects of a healthy lifestyle on diseases such as heart disease, diabetes, cancer and depression. The content is particularly suited to students who are interested in assessing their own lifestyle and making healthy changes. In laboratory sessions each student will assess his or her own health and lifestyle and then as a course assignment develop a personalised lifestyle improvement plan. A visit to the Museum of Human Disease is included as a tutorial activity.

Aims of the Course

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

1. describe lifestyle factors that contribute to chronic disease and, conversely, good health
2. describe the effects of regular physical activity on a variety of physical and psychological health variables
3. determine dietary factors that contribute to good health

Student Learning Outcomes

On completion of this subject students should be able to:

1. conduct a range of health assessment and screening tests
2. design and implement a lifestyle change program for themselves
3. identify risk factors associated with poor lifestyle choices
4. demonstrate a basic knowledge of dietary assessment and a healthy food intake

Graduate Attributes

GENM0804 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. This course will help develop students who are:

1. Capable of initiating and embracing change
2. Rigorous in their analysis, critique and reflection
3. Able to communicate effectively
4. Capable of independent, self-directed practice
5. Ethical in their practice and display a respect for diversity
6. Engaging in lifelong learning

Rationale for the inclusion of content and teaching approach

Teaching strategies

Lectures – Lectures will provide you with the concepts and theory essential for understanding how the individual's lifestyle choices impact on their health. In the lectures the aetiology of lifestyle diseases will be outlined and a description of the effects of healthy lifestyle choices on risk factors will be given. Lectures will examine the current research regarding these effects.

Laboratories – The purpose of the practical components of this course is to help to develop a greater understanding of how your own fitness and health related parameters are assessed and to assist you in planning a basic healthy lifestyle program for implementing change in your own life.

Tutorial – There is a visit to the Museum of Human Disease timetabled into the course. Here you will be given the opportunity to view specimens of human organs and observe the changes that can occur when structures become diseased.

Readings – There is a list of suggested readings on pages 4 and 5 of this outline. There will be questions on the final examination that directly relate to these readings. The rationale for the inclusion of this material is so that you attain a deeper understanding of the issues that relate to lifestyle and health.

Assessments – These tasks have been chosen as tools to enhance and guide your learning as well as a way of measuring performance, and are therefore a central teaching strategy in this course.

Summary of Assessments	Weight	Due Date
ASSESSMENT TASK 1 – 3-day dietary analysis	30%	4/12/15
ASSESSMENT TASK 2 – Lifestyle change program	40%	9/1/16
ASSESSMENT TASK 3 – End of Session Examination	30%	18/12/15

Assessment Task 1: 3-day dietary analysis

This assessment task addresses Graduate Attributes one to six.

Due: 4/12/15

For this assignment you will be required to record your dietary intake for three days: two week days and one weekend day. Your record needs to be detailed and comprehensive. For example, if you had a chicken and salad sandwich for lunch your record should be as follows:

- 2 slices whole grain bread
- ¼ small avocado
- 2 slices chicken breast (no skin)
- 2 slices tomato
- ½ cup mixed salad leaves
- 3 slices cucumber
- ¼ red capsicum
- 1 litre of water

After you have collected three days dietary intake, you need to analyse the data using SERVE software, which is available on computers in room 115 Wallace Wurth Building. Instructions for using this software are in the laboratory manual. Your report will include your actual intake for the three days, the computer analysis and a discussion (one page only) of the deficiencies and/or excesses in your diet and your strategies for improving your diet.

The assignment is to be handed in as a Word document via Turnitin on Moodle <http://moodle.telt.unsw.edu.au/>. Turnitin does not permit multiple downloads so you must consolidate your assignment into one Word document.

Assessment Task 2: Lifestyle Change Program

This assessment task addresses Graduate Attributes one to six

Due: 9/1/16

You are to independently plan a basic healthy lifestyle program designed to improve your health and well-being. It should be needs based and relevant to your own lifestyle. You need to establish short, medium and long term goals using the SMART principles. The program should be planned with the achievement of your goals as the objective. The format of the assignment should be report style and contain only the requisite information. A planning proforma will be made available on MOODLE and will be used as a guideline for the report.

The assignment is to be handed in as a Word document via Turnitin on Moodle <http://moodle.telt.unsw.edu.au/>. Turnitin does not permit multiple downloads so you must consolidate your assignment into one Word document.

Assessment Task 3: Final Examination

This assessment task addresses Graduate Attributes two, three and six

Date: 18/12/15

The purpose of this examination is to test your understanding of the concepts covered in this course during the ENTIRE COURSE and will draw from material in lectures and laboratories. The format will be multiple choice and one short answer question. There is an extensive list of readings included in this course outline. Students who read and digest this reading material will achieve greater success in the examination as this material will be examined.

Submission of Assessment Tasks

Written assessment tasks must be handed in via Turnitin which can be found on Moodle <http://moodle.telt.unsw.edu.au/>. Penalties apply for late submissions.

Penalties for late submission of assignments – In cases where an extension has NOT been granted (you must apply for an extension prior to the due date and have a reasonable explanation for needing an extension), the following penalties will apply: For assignments submitted after **11:55 pm** on the due date, a penalty of 50% of the maximum marks available for that assignment will be incurred. A further 25% of the maximum possible allocated marks (i.e., a total of 75%) will be deducted from assignments which are two (2) days late. Assignments received more than two (2) days after the due date **will not be allocated a mark**, however, these assignments **must** still be submitted to pass the unit.

Examination procedures and attendance requirements

Attendance is expected at all lectures, laboratories and tutorials for this course. Attendance at all practical sessions and tutorials 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 Echo360, 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.

Learning Resources

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

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.

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.

McArdle, W. D., Katch, F. I., & Katch, V. L. (2001). Exercise Physiology: Energy, Nutrition, and Human Performance, 5th 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)

Suggested Readings

Acevedo, E. & Ekkekakis, P (2006). Affective responses to acute exercise: toward a psychobiological dose-response model. *The Psychobiology of Physical Activity*. Champaign: Human Kinetics.

http://www.public.iastate.edu/~ekkekaki/pdfs/ekkekakis_acevedo_2006.pdf

Boutcher, S.H. & Dunn, S.L. (2009). Factors that may impede the weight loss response to exercise-based interventions. *Obes Rev*, 10, 671-680.

<http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1111/j.1467-789X.2009.00621.x>

Eriksson, J. et al. (1997). Exercise and the metabolic syndrome. *Diabetologia*, 40, 125-135.

<http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1007/s001250050653>

Friendenreich, C.M., (2002). Physical activity and cancer prevention: from observational to intervention research. *Cancer Epidemiology, Biomarkers and Prevention*, 10, 287-301;

<http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://cebp.aacrjournals.org/content/10/4/287>

Hamer, M., Ingle, L., Carroll, S. & Stamatakis, E. (2012). Physical activity and cardiovascular mortality risk: possible protective mechanisms? *Med Sci Sports Ex*, 44(1), 84-88.

<http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://ovidsp.ovid.com/ovidweb.cgi?T=JS&CSC=Y&NEWS=N&PAGE=fulltext&AN=00005768-201201000-00011&LSLINK=80&D=ovft>

Heyn et al. (2004). The effects of exercise training on elderly persons with cognitive impairment and dementia: a meta-analysis. *Arch Phys Med Rehabil*, 85, 1694-1704.

<http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1016/j.apmr.2004.03.019>,

Hopkins, S.A. & Cutfield, W.S. (2011). Exercise in pregnancy: weighing up the long-term impact on the next generation. *Ex Sp Sc Rev*, 39(3), 120-127

<http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://ovidsp.ovid.com/ovidweb.cgi?T=JS&CSC=Y&NEWS=N&PAGE=fulltext&AN=00003677-201107000-00004&LSLINK=80&D=ovft>

Libby, P. (2002). Atherosclerosis: the new view. *Scientific American*, 286(5), 46-55.

<http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1038/scientificamerican0502-46>

Mutrie (2001). The relationship between physical activity and clinically defined depression. In Biddle, S., Fox, K., & S.H. Boutcher (Eds.), *Physical Activity and Mental Psychological Well-being*, Routledge. This is available in the high use collection in the library.

Owen, N., Healy, G., Matthews, C.E., & Dunstan, D.W. (2010). Too much sitting: the population health science of sedentary behaviour. *Exercise and Sports Science Reviews*, 38(3), 105-113.

<http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://ovidsp.ovid.com/ovidweb.cgi?T=JS&CSC=Y&NEWS=N&PAGE=fulltext&AN=00003677-201007000-00003&LSLINK=80&D=ovft>

Page, P. (2012). Current concepts in muscle stretching for exercise and rehabilitation. *International Journal of Sports Physical Therapy*, 7(1), 109-119.

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3273886/>

Pescatello, L. et al. (2004). Exercise and hypertension. *Med Sci Sports Ex*, 36, 533-553.

[http://er.library.unsw.edu.au/er/cgi-](http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://ovidsp.ovid.com/ovidweb.cgi?T=JS&CSC=Y&NEWS=N&PAGE=fulltext&AN=00005768-200403000-00025&LSLINK=80&D=ovft)

[bin/eraccess.cgi?url=http://ovidsp.ovid.com/ovidweb.cgi?T=JS&CSC=Y&NEWS=N&PAGE=fulltext&AN=00005768-200403000-00025&LSLINK=80&D=ovft](http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://ovidsp.ovid.com/ovidweb.cgi?T=JS&CSC=Y&NEWS=N&PAGE=fulltext&AN=00005768-200403000-00025&LSLINK=80&D=ovft)

Shaw K, Gennat H, O'Rourke P, Del Mar C. Exercise for overweight or obesity. *Cochrane Database Syst Rev* (2006), 4:CD003817.

[http://er.library.unsw.edu.au/er/cgi-](http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1002/14651858.CD003817.pub3)

[bin/eraccess.cgi?url=http://dx.doi.org/10.1002/14651858.CD003817.pub3](http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1002/14651858.CD003817.pub3)

Steele, R.M, Brage, S., Corder, K., Wareham N.J. & Ekelund, U. (2008). Physical activity, cardiorespiratory fitness and the metabolic syndrome in youth. *J Appl Physiol*, 105, 342-351.

<http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1152/jappphysiol.00072.2008>

Trapp, E.G., Chisholm, D.J., Freund, J., & Boutcher, S.H. The effect of high intensity intermittent exercise training on fat loss and insulin levels of young women, *Int J Obes*, 32(4), 684-691.

<http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1038/sj.ijo.0803781>

Van Praag, H. (2009). Exercise and the brain: something to chew on. *Trends in Neuroscience*, 32(5), 283-290.

<http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1016/j.tins.2008.12.007>

Youngstedt, S.D. (2005). Effects of exercise on sleep. *Clin Sp Med*, 24, 355-365.

[http://er.library.unsw.edu.au/er/cgi-](http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://www.mdconsult.com/das/journal/view/0/N/15491401?ja=468810&PAGE=1.html&issn=0278-5919&source=MI)

[bin/eraccess.cgi?url=http://www.mdconsult.com/das/journal/view/0/N/15491401?ja=468810&PAGE=1.html&issn=0278-5919&source=MI](http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://www.mdconsult.com/das/journal/view/0/N/15491401?ja=468810&PAGE=1.html&issn=0278-5919&source=MI)

Zinn, A.R. (2010). Unconventional wisdom about the obesity epidemic. *Am J Med Sc*, 340(6), 481-491.

[http://er.library.unsw.edu.au/er/cgi-](http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://ovidsp.ovid.com/ovidweb.cgi?T=JS&CSC=Y&NEWS=N&PAGE=fulltext&AN=00000441-201012000-00014&LSLINK=80&D=ovft)

[bin/eraccess.cgi?url=http://ovidsp.ovid.com/ovidweb.cgi?T=JS&CSC=Y&NEWS=N&PAGE=fulltext&AN=00000441-201012000-00014&LSLINK=80&D=ovft](http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://ovidsp.ovid.com/ovidweb.cgi?T=JS&CSC=Y&NEWS=N&PAGE=fulltext&AN=00000441-201012000-00014&LSLINK=80&D=ovft)

Course schedule:

	Date	Location 10 am – 12 noon	Lecture Content	Laboratory Wallace Wurth 120 1 - 3pm
Week 1 Lecture 1 & 2	Tues 24/11/15	WWLG03 All students to attend	Introduction 1. Healthy lifestyles 2. The disease ↔ health continuum	GROUP 1 Using dietary analysis software Measuring blood pressure and heart rate.
Week 1 Lecture 3 & 4	Wed 25/11/15	WWLG03 All students to attend	1. Lifestyle change 2. Health markers	GROUP 2
Week 1 Lecture 5 & 6	Thurs 26/11/15	CLB6 All students to attend	1. Your genes and how they interact with the environment 2. Nutrition	GROUP 3
Week 2 Lecture 1 & 2	Tues 1/12/15	WWLG03 All students to attend	1. Food skills 2. Physical activity and weight management	GROUP 1 Measuring strength, flexibility and body composition
Week 2 Lecture 3 & 4	Wed 2/12/15	WWLG03 All students to attend	1. Back pain posture 2. Posture and core strength	GROUP 2
Week 2 Lecture 5 & 6	Thurs 3/12/15	WWLG03 All students to attend	1. FITT principle 2. Functional exercise	GROUP 3
Week 3 Lecture 1 & 2	Tues 8/12/15	WWLG03 All students to attend	1. Planning physical activity 2. How to plan your lifestyle change program	GROUP 1 Measuring cardiovascular fitness
Week 3 Lecture 3 & 4	Wed 9/12/15	WWLG03 All students to attend	1. The cardiorespiratory system 2. Heart disease and cholesterol	GROUP 2
Week 3 Lecture 5 & 6	Thurs 10/12/15	WWLG03 All students to attend	1. Diabetes 2. Cancer	GROUP 3
Week 4 Lecture 1 & 2	Tues 15/12/15	WWLG03 All students to attend	1. Depression 2. Cognition	Visit to the Museum of Human Disease GROUP 1
Week 4 Lecture 3 & 4	Wed 16/12/15	WWLG03 All students to attend	1. Stress Management 2. Sleep	GROUP 2
Week 4 Lecture 5 & 6	Thurs 17/12/15	WWLG03 All students to attend	1. Smoking 2. Recreational Drug Use	GROUP 3
	Fri 18/12/15	CLB7 All students to attend	Final Examination	NO LABS TODAY