Faculty of Health and Behavioural Sciences  
School of Health Sciences  
Subject Outline  
SHS 980 Epidemiology & Toxicology for OHS Practitioners  
SHS MAY 2013

Section A: Subject Information

Subject Code & Name: SHS 980 Epidemiology & Toxicology for OHS Practitioners  
Credit Points: 6  
Pre-requisite(s): None  
Co-requisite(s): None  
Restrictions: None  
Equivalence: None  
Assessment:  
a) Individual report 20%;  
b) Critical appraisal of an article (s) 20%;  
c) Critical review of toxicology topics 20%;  
d) Final Examination 40%.  
Session: SHS May (22-04-2013 to 12-07-2013)  
Campus Locations: Wollongong  
Delivery Method: On Campus  
Contact Hours: Block Teaching - 5 full days 29 Apr - 3 May 2013

Subject Timetable
All timetable information is subject to variation, with last minute room changes due to change in enrolment numbers being the most common. Check the latest information on the university web timetable at via the Timetable link under Study Resources on the Current Students webpage or log into SOLS to view your personal timetable prior to attending classes, particularly in the first few weeks of session.

Subject Coordinator
Name: Vinod Gopaldasani  
Location: School of Health Sciences, Building 41, Room 247  
Consultation times: via Email  
Telephone: 61 2 4221 4438  
Email: vinodkumuow.edu.au

Student Administration
Location: 41.152  
Telephone: 61 2 4221 3492  
Email: hbs_central@uow.edu.au

Students should refer to the Faculty of Health & Behavioural Sciences Student Guide for general advice and information. For information refer to the following link http://www.uow.edu.au/health/hbs_central/index.html

Prescribed Text
A student manual for this subject is available on the eLearning site. Please note that sole dependence on this manual for all information will be insufficient for the assessment exercises.

Assessment Tasks
See below

eLearning Space
For information refer to the following link http://www.uow.edu.au/student/elearning/vista/index.html.
Section A: Subject Information

Subject Description
The aim of this subject is to provide the student with a sound understanding of the principles of epidemiology & industrial toxicology and their relevance to workplace health. It is envisaged that these learnings will assist students in understanding the basis of workplace exposure standards. Students will also gain experience as to how they should research and interpret the health effects of various contaminants in the workplace.

Learning Outcomes
On completion of this subject, students should be able to:

(a) Describe the principles of epidemiology & industrial toxicology.
(b) Outline the principal aspects of disease processes induced by occupational related exposures.
(c) Apply the role of epidemiology & toxicology in the setting of occupational exposure levels.
(d) Interpret basic epidemiologic concepts and measures of disease occurrence in occupational health settings.
(e) Appreciate the links between epidemiology, industrial toxicology & occupational health.
(f) Explain the relative strengths and limitations of epidemiological study designs for studying associations between risk factors or exposures and rates of disease occurrence or death.
(g) Critically evaluate a published study.

Subject Contacts

Subject Coordinator
Name: Vinod Gopaldasani
Location: School of Health Sciences, Building 41, Room 247
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Telephone: 61 2 4221 4438
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Lecturer
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Consultation times: via Email
Email: vinodkum@uow.edu.au

Lecturer
Name: Phil Cantrell
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Subject Timetable
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Attendance/Study time
You will need to allocate extra time outside of lectures (block sessions) and ensure attendance at all lectures to successfully undertake this subject. Although attendance is not considered a component of assessment, you should endeavour to attend all classes.
*Attendance at all lectures is required for Assignment 1 group exercise
Timetable of Topics

<table>
<thead>
<tr>
<th>Date</th>
<th>Lecture</th>
<th>Group Exercises</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mon 29 April 2013</td>
<td>Course overview, Introduction to epidemiology &amp; toxicology. Measuring health &amp; disease. Basic principles of Toxicology</td>
<td>Assignment 1 group exercise</td>
</tr>
<tr>
<td>Tue 30 April 2013</td>
<td>Mechanisms of toxicity, Sites of toxic action, Study design 1 &amp; Study design 2.</td>
<td></td>
</tr>
<tr>
<td>Wed 1 May 2013</td>
<td>Specific group toxicity, Statistics in Epidemiology</td>
<td>Assignment 1 Group exercise.</td>
</tr>
<tr>
<td>Thu 2 May 2013</td>
<td>Sources of error in study design, Critical appraisal of Epidemiological studies. Determining causality, Epidemiological case studies. Application of toxicology information &amp; Toxicology case studies.</td>
<td></td>
</tr>
<tr>
<td>Fri 3 May 2013</td>
<td>Review of mock examination, Assignment 1 data review</td>
<td>Group exercises</td>
</tr>
</tbody>
</table>

Textbooks and Supplementary Materials

Prescribed Texts

A student manual for this subject is available on the eLearning site. Please note that sole dependence on this manual for all information will be insufficient for the assessment exercises.

Toxicology Principles for the Industrial Hygienist; Luttrell W.E, Jederberg W. W & Still K.R; American Industrial Hygiene Association, 2008

Epidemiology, Oxford, Buttner, P., Muller, R. Oxford University Press, 2011 (Available in University Bookshop)

Texts can be ordered online via the bookshop: [http://unicentre.uow.edu.au/unishop/index.htm](http://unicentre.uow.edu.au/unishop/index.htm)
Supplementary Materials to Be Purchased by Students
None

Recommended Additional Readings
1) Basic Epidemiology; Bonita R, Beaglehole R & Kjellstrom T; WHO 2nd Edition 2006

Note: An electronic version of this publication is available online from the WHO at the following website
http://apps.who.int/bookorders/anglais/detart1.jsp?sesslan=1&codlan=1&codcol=80&codcch=18
at a cost of approximately $26 AUD. The process takes about 48 hours after you pay your money.

Recommended readings are not intended as an exhaustive list and students should use the Library catalogue and databases to locate additional resources. Distance students studying within Australia should refer to the information and resources found via the Library link on the UOW homepage regarding off-campus library services available. Distance students studying outside Australia should contact their subject coordinator, as arrangements for library services may be available within their own country.

eLearning Space
This subject has materials and activities available via eLearning. To access eLearning you must have a UOW user account name and password, and be enrolled in the subject. eLearning is accessed via SOLS (student online services). Log on to SOLS and then click on the eLearning link in the menu column.


eReadings
There are no eReadings for this subject.

Graduate Qualities
Information on the UOW Graduate Qualities can be found at via the Learning and Teaching link on the UOW homepage. The University of Wollongong has developed five graduate qualities which it considers express valuable qualities that are essential for UOW graduates in gaining employment and making an important contribution to society and their chosen field. Student development of the following graduate qualities in particular will be enhanced by their participation in this subject:

1. **Informed**: Have a sound knowledge of an area of study or profession and understand its current issues, locally and internationally. Know how to apply this knowledge. Understand how an area of study has developed and how it relates to other areas.

2. **Independent learners**: Engage with new ideas and ways of thinking and critically analyse issues. Seek to extend knowledge through ongoing research, enquiry and reflection. Find and evaluate information, using a variety of sources and technologies. Acknowledge the work and ideas of others.

3. **Problem solvers**: Take on challenges and opportunities. Apply creative, logical and critical thinking skills to respond effectively. Make and implement decisions. Be flexible, thorough, innovative and aim for high standards.

4. **Effective communicators**: Articulate ideas and convey them effectively using a range of media. Work collaboratively and engage with people in different settings. Recognise how culture can shape communication.

5. **Responsible**: Understand how decisions can affect others and make ethically informed choices. Appreciate and respect diversity. Act with integrity as part of local, national, global and professional communities.

Recent Improvements to this Subject
Change: Addition of student manual and addition of new prescribed text.

Reason: To provide better overview of the key aspects of this subject for students not familiar with the topics

Other Information
Students should refer to the Faculty of Health & Behavioural Sciences Student Guide for general advice and information. The Student Guide is available on the HBS Central website, which is accessed by navigating the links on the Faculty of Health & Behavioural Sciences homepage.
Section B: Assessment

Minimum Requirements for a Pass in this Subject
To receive a clear pass in this subject a total mark of 50% or more must be achieved. In addition, students must meet all of the minimum performance requirements as listed below. Failure to meet any of the minimum performance requirements is grounds for awarding a Technical Fail (TF) in the subject even where total marks accumulated are greater than 50%.

Minimum Academic Performance: A Technical Fail (TF) grade will be awarded for the subject even where a student gains a total mark that would otherwise allow a passing grade if a student meets one or more of the following criteria:

- does not attempt all assessment tasks

Minimum Attendance: student attendance at tutorials, practicals seminars and/or simulations is compulsory and students must attend at least 80% of classes. Absences will require a medical certificate or other suitable documentation which must be presented to the Subject Coordinator as soon as practical after the absence has occurred. Students who do not meet minimum attendance requirements may be awarded a Technical Fail (TF) for this subject.

Minimum Participation: Student participation in tutorials, practicals and/or seminars is an assessable component of this course. Students who do not meet minimum participation requirements may be awarded a Technical Fail (TF) for this subject.

Students who do not meet the overall minimum performance level requirements outlined above may be given a Technical Fail (TF) grade on their academic transcript even where the total marks accumulated are 50% or higher. Where a Technical Fail is awarded, the grade is displayed as TF but a mark is not displayed on the academic transcript. For the purposes of calculating a Weighted Average Mark (WAM) a TF is allocated a mark of 49.

Details of Assessment Tasks

<table>
<thead>
<tr>
<th>Assessment 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Format</td>
<td>Individual Report</td>
</tr>
<tr>
<td>Due date</td>
<td>10/05/2013</td>
</tr>
<tr>
<td>Weighting</td>
<td>20%</td>
</tr>
<tr>
<td>Length</td>
<td>6-8 pages (3200 words max)</td>
</tr>
<tr>
<td>Details</td>
<td>Students will be required to prepare a report on their interpretation of data collected by groups on a specific contaminant.</td>
</tr>
<tr>
<td>Submission</td>
<td>Submit an electronic version of your assignment via upload to eLearning</td>
</tr>
</tbody>
</table>

Participation in group exercises is considered compulsory. Absences will require a medical certificate.

Assessment 1 will be marked using the following criteria:

1. Correct identification of key issues  50%
2. Provision of suitably referenced material that supports the discussion(s) submitted by the student  50%
### Assessment 2

<table>
<thead>
<tr>
<th>Format</th>
<th>Critical appraisal of an article(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Due date</td>
<td>31/05/2013</td>
</tr>
<tr>
<td>Weighting</td>
<td>20%</td>
</tr>
<tr>
<td>Length</td>
<td>6-8 pages (3200 word max)</td>
</tr>
<tr>
<td>Details</td>
<td>A series of one or more questions which seeks to build on the students learning’s from the formal lectures. Students will in some cases need to research a topic to ensure that they understand the issue and can demonstrate that understanding.</td>
</tr>
<tr>
<td>Submission</td>
<td>Submit an electronic version of your assignment via upload to eLearning</td>
</tr>
</tbody>
</table>

Assessment 2 will be marked using the following criteria:

1. Correct identification of key issues 50%
2. Provision of suitably referenced material that supports the discussion(s) submitted by the student 50%

### Assessment 3

<table>
<thead>
<tr>
<th>Format</th>
<th>Critical reviews of toxicology reports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Due date</td>
<td>31/05/2013</td>
</tr>
<tr>
<td>Weighting</td>
<td>20%</td>
</tr>
<tr>
<td>Length</td>
<td>6-8 pages (3200 words)</td>
</tr>
<tr>
<td>Details</td>
<td>A series of one or more questions which seeks to build on the students learning’s from the formal lectures. Students will in some cases need to research a topic to ensure that they understand the issue and can demonstrate that understanding.</td>
</tr>
<tr>
<td>Submission</td>
<td>Submit an electronic version of your assignment via upload to eLearning</td>
</tr>
</tbody>
</table>

Assessment 3 will be marked using the following criteria:

1. Correct identification of key issues 50%
2. Provision of suitably referenced material that supports the discussion(s) submitted by the student 50%

### Final Examination

Date: 14 June 2013  
Weighting: 40%  
Duration: 2 Hours (online)

**Examination Format**

The final examination will consist of 40 multiple choice questions (choose the correct answer from 4 possible answers) and 10 short answer questions (half a page of text each). The examination will be delivered online with on campus students undertaking the examination in a computer laboratory. The examination will take place between 1.30-3.30 pm (Wollongong Time) to take account of time zones.

Off campus students are required to nominate an acceptable invigilator prior to the examination and for the nominated invigilator to have been approved. This process must be completed two weeks prior to the examination.

**Scaling**

Scaling will not occur in this subject.

**Submission of Assignments**

An online assignment cover sheet (available on eLearning site) must be attached to all assignments and all sections of the cover sheet must be completed. Students are expected to keep a copy of all their submitted assignments.

The ONLY approved method of submitting assignments is via the drop box on the eLearning site.
Note: To load up the assignment & coversheet to the dropbox select BOTH files at the same time and then click "add attachments". Do not attempt to load documents through a computer system protected by a major firewall as it will most likely fail. Use your home internet as it will give less problems.

Due Date

Unless otherwise specified, assignments are due by 4:00pm on the due date specified for the assessment task.

Late Submission

Late submission of an assessment task without an approved extension of the deadline is not acceptable. Marks will be deducted for late submission at the rate of 5% of the total possible marks for that particular assessment task per day. This means that if a piece of work is marked out of 100, then the late penalty will be 5 marks per day (5% of 100 possible marks per day). The formula for calculating the late penalty is the total possible marks x 0.05 x number of days late. For example:

Student A submits an assignment which is marked out of 100. The assignment is submitted 7 days late. This means that a late penalty of 35 marks will apply (100 x 0.05 x 7). The assignment is marked as per normal out of 100 and is given a mark of 85/100, and then the late penalty is applied. The result is that the student receives a final mark of 50/100 for the assignment (85 (original mark) – 35 marks (late penalty) = 50/100 (final mark)).

Student B submits a report which is marked out of 20. The report is submitted three days late. This means that a late penalty of 3 marks will apply ((20 x 0.05 x 3). The report is marked as per normal out of 20 and is given a mark of 17/20, and then the late penalty is applied. The result is that the student receives a final mark of 14/20 for the report (17 (original mark) – 3 marks (late penalty) = 14/20 (final mark)).

For the purposes of this policy a weekend (Saturday and Sunday) will be regarded as two days.

No marks will be awarded for work submitted either: a) after the assessment has been returned to the students or b) more than two weeks after the due date, whichever is the sooner. Notwithstanding this, students must complete all assessment tasks to a satisfactory standard and submit them, regardless of lateness or loss of marks, where submission is a condition of satisfactorily completing the subject.

Extensions

An extension of time to submit assignments can only be granted by the subject coordinator in exceptional circumstances. Pressure of work, either from employment or from other studies, is not an acceptable reason for seeking an extension of time. Carefully note the due date for each assignment and plan your work so that deadlines can be met.

Students seeking an extension must submit an application for academic consideration through SOLS with appropriate documentation PRIOR to the deadline for submission of the assessment task.

Assessment Return

Marked assignments will be returned via the eLearning site OR according to the arrangement announced by the Subject Coordinator. In accordance with University Policy marked assignments will usually only be retained by the Subject Coordinator/Tutor for 21 days after the declaration of the marks for that assignment. After that time any uncollected assignments will be destroyed.

Supplementary Assessments

Supplementary assessment may be offered to students who apply for student academic consideration and can demonstrate suitable grounds in accordance with the Student Academic Consideration Policy. The precise form of supplementary assessment will be determined at the time the offer of a supplementary assessment is made.

Subject Outline: SHS 980 Epidemiology & Toxicology for OHS Practitioners – SHS MAY 2013
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Examination Rules
In 2012, there were a number of changes to the University Examination Rules that affect all current students. You can find this information at the following link; http://www.uow.edu.au/student/exams/index.html.

Supplementary Examinations
You can find the information for supplementary examinations at the following link; http://www.uow.edu.au/student/exams/aboutsupp/index.html.

Student Academic Consideration Policy
Academic Consideration is a process intended to help minimise the impact of serious or extenuating circumstances beyond a student's control which significantly impair a student's ability to complete an assessment task on or by the due date as stipulated in the Subject Outline or to progress academically in a subject relevant to their course of study. Academic consideration may be granted on the basis of medical grounds, compassionate grounds and/or extenuating circumstances.

It is not possible for academic consideration to compensate for every consequence of illness, injury, other serious cause, or extenuating circumstance affecting a student's academic progress. However, academic consideration, where appropriate, may help to minimise the impact of such circumstances by providing a mechanism to vary assessment requirements of a subject or to avoid some of the usual consequences of failure in a subject.

To apply for academic consideration you must submit an application via SOLS, as well as relevant documentation which is submitted in person to Student Central in Bld 17. The Subject Coordinator will be automatically notified of your request once you have submitted documentation and they will approve or decline your application. Students should log on to SOLS to see if their request has been approved. In the event of a genuine emergency, you must notify the Subject Coordinator as soon as possible by whatever means practical at the time, and follow with a formal academic consideration request as soon as you are able to.

The full policy on Student Academic Consideration is found in the Policy Directory on the UOW website.

System of Referencing Used for Written Work
The School uses the Harvard system of referencing, unless otherwise specified for a particular assignment – check Details of Assessment Tasks.


Use of Internet Sources
Students are able to use the Internet to access the most current information on relevant topics and information. Internet sources should only be used after careful critical analysis of the currency of the information, the role and standing of the sponsoring institution, reputation and credentials of the author, the clarity of the information and the extent to which the information can be supported or ratified by other authoritative sources.

Plagiarism
Plagiarism means using the ideas of someone else without giving them proper credit. ALL work submitted for assessment MUST BE YOUR OWN. The other person may be an author, a lecturer or another student. The work may previously have been published in print or on the Web.

Plagiarism will not be tolerated and may result in the imposition of severe penalties. The University of Wollongong has the power to reprimand and penalise any student found guilty of such offences. If plagiarism is suspected, this will result in appropriate investigations.

“Students are responsible for submitting original work for assessment, without plagiarising or cheating, abiding by the University’s Academic Integrity and Plagiarism Policy as set out in the University Handbook, the University’s online Policy Directory and in Faculty Handbooks and subject guides. Re-using any of your own work (either in part or in full) which you have submitted previously for assessment is not permitted without appropriate acknowledgement. Plagiarism has led to the expulsion from the University.”
To avoid plagiarism when using other people’s work, take care to reference appropriately. For assistance with correct referencing technique, consult with your tutor or lecturer. The Learning Development Centre also provides assistance to students on how to correctly reference.

Please note that you are required to sign a declaration on the assignment cover sheet, stating that you have read and met the requirements for the assignment, that (except for group assignments) you have not collaborated with other students, that you have not plagiarised and that, where you have used the work of others, you have referenced it appropriately. Academic staff will return your assignment unmarked if you have not signed the declaration.

The full policy on Academic Integrity and Plagiarism is found in the Policy Directory on the UOW website.

**Section C – General Advice**

Students should refer to the Faculty of Health & Behavioural Sciences Student Guide for information on policies, learning and support services and other general advice.

The HBS Student Guide is available on the HBS Central website, which is accessed by navigating the links on the Faculty of Health & Behavioural Sciences homepage.