Subject Information Guide

STATISTICAL CONSULTING STAT904

Semester 1, 2015

Administration and contact details

Host Department	School of Mathematics and Applied Statistics
Host Institution	University of Wollongong
Name of lecturers **Phone** **Email** **Homepage**	Name: Ray Chambers Phone: 02 4221 3809 Email: ray@uow.edu.au Name: David Steel Phone: 02 4221 3823 Email: dsteel@uow.edu.au Homepage: http://eis.uow.edu.au/smas/index.html
Name of Honours coordinator	Rodney Nillsen
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Subject details

Handbook entry URL	https://solss.uow.edu.au/sid/CAL.USER_SUBJECTINFO_SCREEN?p_faccde=24&p_depabb=MAAS&p_subcode=STAT904&p_cal_subject_id=155151&p_year=2015&p_cal_type=P&p_cal_types=UP&p_breadcrumb_type=1&p_menu_type=1
Subject homepage URL	NA
Honours student hand-out URL	www.uow.edu.au/informatics/maths/students/current/honours/index.html
Start date:	2/03/2015
End date:	2/06/2015
Contact hours per week:	2
Lecture day and time:	MON 11:30-13:30
Description of electronic access arrangements for students (for example, WebCT)	UOW eLearning space (Moodle) Email: ray@uow.edu.au UOW eLearning space (Moodle) ray@uow.edu.au

Subject content

1. Subject content description

After successful completion of this subject, students should be able to perform the following tasks;

(i) Identify and deal with ethical issues arising through the consulting relationship
(ii) Conduct an initial interview as a statistical consultant, eliciting the problem and directing appropriate follow-up.
(iii) Appraise statistical consulting sessions conducted by others.
(iv) Analyse and report to a client in a timely and effective manner.
(v) Research topics previously unknown to them.
(vi) Identify relevant analysis and design approaches in practical situations.

2. Week-by-week topic overview

In this subject we consider the issues associated with the role of statistical consultant and client. Topics include: communication skills, choosing analysis techniques, developing appropriate study designs, questionnaire development and piloting, researching the unknown, sample size, initial interviews, follow-up interviews, analysing data, reporting, and time management.

3. Assumed prerequisite knowledge and capabilities

Major in undergraduate statistics, including common statistical methods such as ANOVA, linear and logistic regression, t- tests, chi-squared tests.

4. Learning outcomes and objectives

AQF specific Program Learning Outcomes and Learning Outcome Descriptors (if available):

AQF Program Learning Outcomes addressed in this subject	Associated AQF Learning Outcome Descriptors for this subject
efficiently conduct a consulting session with a client	**K1,S5,A1**
find information on statistical methodology using the resources of the Library and the World Wide Web	**S5, A2**
explain the important principles behind designing and conducting an experiment or sample survey	**S5, A2**
determine appropriate statistical procedures to use on a wide variety of data sets	**S5, A2**
apply and interpret procedures from a statistical package	**S5, A2**

5. Learning resources

- Text/printed notes
  Notes will be distributed to students as required and made available on the UOW eLearning Space..
- Software (local access)
  Access to a standard statistical software package such as SPSS, Stata, JMP, SAS, or R will be required to undertake some statistical analysis for assignments.

6. Assessment

All assignments will be issued on the eLearning Space. All assignments must be lodged as a single PDF document on the eLearning Space for this subject by 2pm on the due date.

The assessment in this subject will include 10 weekly assignments and a report on consultations. A final examination and take home examination will also be conducted that together count for 70% of the final mark.

Weekly Assignments: The ten weekly assignments are each worth 2% giving a total of 20% of the final mark. The week specified in the following table indicates when assignments will be issued and the due dates. It is important that you at least read an assignment before the lecture in the week after it is handed out so that you can ask relevant questions.

Weekly Assignments	Week Out	Date Out	Week Due	Date Due
1	1	2 Mar	3	16 Mar
2	2	9 Mar	4	23 Mar
3	3	16 Mar	5	30Marr
4	4	23 Mar	6	13 Apr
5	5	30 Mar	7	20Apr
6	6	13 Apr	8	27Apr
7	7	20 Apr	9	4 May
8	8	27 Apr	10	11 May
9	9	4 May	11	18 May
10	10	11 May	12	25 May

Consultant Observations: Each student will also be asked to observe some real consultations and provide a report on them. This assessment must be submitted by 5pm in week 13 (1 June) and will count for 10% of the final mark.
To be involved in real consulting students will have to make themselves available outside standard class contact times. Any anticipated problem in this regard should be brought to the attention of Prof Chambers.

Summary of important points: Students are advised or maintain a log of important points and be prepared to summarize these in a take home examination.

Report: Each student will be allocated a topic to research and provide a written report that forms part of the take-home examination. The take home examination will be set on 1 June and due 5pm on 8 June.

Approximate final exam date: in period 15 to 26 June

In allocating marks to any component the clarity of presentation will be taken into account as well as content. The appropriateness of the length of any reports will also be taken into account. Information on length, style and format of written work will be given for each assignment.

Institution Honours program details

Weight of subject in total honours assessment at host department	**1/8**
Thesis/subject split at host department	**BMath(Hons): Thesis worth 25%** **BMathAdv(Hons): Thesis worth 37.5%**
Honours grade ranges at host department:	
H1	85-100
H2a	75-84
H2b	65-74
H3	50-64