



MACQUARIE
UNIVERSITY
FACULTY OF SCIENCE

PSY122 – Design and Statistics 1 STAT122 – Design and Statistics 1

Second Semester 2011

Unit Outline

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Students in this unit should read this unit outline carefully at the beginning of semester. It contains important information about the unit. If anything in it is unclear, please consult one of the teaching staff in the unit.

Unit Web pages

Information relating to PSY122 can be found by visiting the Macquarie University Statistics Department web site. The URL for this site is: http://www.stat.mq.edu.au/undergraduate_programs/stat_units/psy122/

The URL to access Blackboard directly is: <http://learn.mq.edu.au>

Use the Discussion Board on Blackboard to communicate with other students and the lecturers.

Learning Outcomes

On completion of this unit students should be able to:

- ✓ organise and summarise data graphically and numerically (Graduate Capability 1)
- ✓ use appropriate techniques to analyse data (Graduate Capabilities 1, 2, 3)
- ✓ use Excel and the statistical package SPSS to manipulate and analyse data (Graduate Capabilities 1, 2, 3)
- ✓ draw conclusions from the results of data analysis (Graduate Capabilities 1, 2, 3, 8)
- ✓ use the Internet to obtain information and communicate with other students in online discussions (Graduate Capability 4)
- ✓ work co-operatively as a member of a team (Graduate Capability 4)
- ✓ apply statistical techniques to problems arising from all fields of psychological research (Graduate Capabilities 1, 2, 3, 4, 5, 6, 7, 8, 9)

Graduate Capabilities

In addition to discipline specific learning outcomes, all academic programs at Macquarie assist students to develop or enhance capabilities in a range of areas. The Macquarie Graduate Capabilities are shown below. The relation between Graduate Capabilities and student learning are shown under 'Learning Outcomes'.

Graduate Capability
1. Discipline specific knowledge and skills
2. Critical, analytical and integrative thinking
3. Problem solving and research capability
4. Effective communication
5. Socially and environmentally active and responsible
6. Creative and innovative
7. Commitment to continuous learning
8. Capable of professional and personal judgment and initiative
9. Engaged and ethical local and global citizens

Teaching and Learning Strategy

Lectures

Lectures begin in Week 1. Students should attend ONE 2-hour session per week. The lectures will be recorded and available from Blackboard as an iLecture on the day following the lecture.

Tutorials

Tutorials begin in Week 2 and are based on work from the previous week's lecture. The aim of tutorials is to reinforce your understanding of key concepts and provide you with an opportunity to practice techniques learnt in lectures.

Practicals

Practical classes begin in Week 2. Each Practical session provides an introduction to manipulating data in *SPSS* as well as *Microsoft Access* and *Excel*. During these sessions you will use the statistical computer package *SPSS* and the techniques learnt during lectures 1,2, 6-12 to display and analyse data and help solve statistical problems. You will need to work through the worksheets which will be available from Blackboard.

Assessment and Assessment Criteria

Three core criteria will be used to assess students' work:

- ✓ Knowledge Development: Understanding of key ideas and concepts
- ✓ Application: Ability to apply statistical concepts to actual research questions
- ✓ Presentation: The extent to which work has been written and/or presented in a manner consistent with accepted academic standards.

Performance in relation to each of these criteria will be assessed against established standards.

The University's academic policy outlining the code of practice in relation to the conduct and management of assessment is available at:

<http://www.mq.edu.au/policy/docs/assessment/policy.html>

http://www.mq.edu.au/policy/docs/assessment/policy_code_of_practice.html

COURSEWORK		EXAMINATIONS	
<i>PsyQuiz</i>	10%	Practical Test	10%
<i>PracQuiz</i>	10%	Final Examination	50%
Assignments	20%		

COURSEWORK SECTION:

The coursework is designed to assist you with the required learning for PSY122 and satisfactory performance in the coursework section is essential to pass the course.

There are two sets of on-line quizzes you will need to complete during this unit: ***PsyQuiz*** and ***PracQuiz***. Quizzes provide students with timely feedback and give the students the opportunity to assess their progress.

The quizzes may be completed at any time during the available time period. Quizzes will be available for at least 14 days. We advise completing them early, particularly your first attempt at each quiz. The cut-off dates on Blackboard are two days later than the due dates listed on page 9 of this outline. This is to allow for any problems which may arise with using Blackboard. If left until the last day, access problems may arise resulting in a loss of marks for that quiz. In general, due dates will not be extended.

You may complete online quizzes immediately or print and enter your answers at a later time.

PsyQuiz

10%

PsyQuiz should be completed in your own time on any PC that is connected to the internet. This material is designed to give you an opportunity to reinforce concepts and practice the skills introduced in lectures. There are eight assessable *PsyQuizzes* (*PsyQuiz 2* to *PsyQuiz 9*). *PsyQuiz 1* does not count towards your assessment. You are allowed **two** attempts at each *PsyQuiz* - the highest mark of the two will be recorded. Of the 8 assessable quizzes, your **best 5** will count towards your final grade. Your combined total mark will contribute 10% towards your assessment. Due dates are provided in the Unit Schedule on page 9. Your performance in *PsyQuizzes 2-3* should be used as an early indication as to how you are progressing with the unit.

- Attempt the practice *PsyQuiz* questions which will be available from Blackboard. *Worked examples to some quizzes will also be available from Blackboard.* Check the solutions (if they are provided).
- Login to Blackboard: <http://learn.mq.edu.au>
- Click the Quizzes icon, click ***PsyQuiz***, then select the quiz you wish to complete.
- Remember to save as you go. **Submit** when you are satisfied with your attempt.

Important: Questions in the online *PsyQuiz* may use different data sets

PracQuiz (based on Practical sessions)

10%

In each practical session you will use the appropriate *Psy122 Practical Worksheet* available from Blackboard. Questions should be answered carefully as there is only **one** attempt allowed at each *PracQuiz*. Your combined total mark will contribute 10% towards your assessment. There is no *PracQuiz 1*.

- Complete the Practical Worksheet and the exercises at the end of the Worksheet during your practical class each week.
- Practical 1 is an introductory practical and should be completed during Week 1 in your own time. There is no *PracQuiz 1*
- Login to Blackboard (as above), click the Quizzes icon, click ***PracQuiz***. Remember to save as you go. **Submit** when you are satisfied with your attempt

Assignments

20%

There are two assignments worth 10% each. Assignments can **ONLY** be submitted via the LABELLED locked boxes in the foyer of building C3A or in the single Psychology Essay Box located outside the entrance of C3A after hours.

The assignment boxes are cleared at 10 am on Mondays to Fridays and again at 4 pm **ONLY ON FRIDAYS** (Assignments received, after the 10AM clearing, are counted as 1 additional day late). Assignments submitted after the 4 pm clearing on Fridays will be cleared on Monday at 10 am and will incur an additional weekend (counted as two additional days) penalty.

All assignments submitted must be accompanied by a completed and signed Psychology Department coversheet which is available from outside the Psychology Office in C3A or downloadable from <http://www.psy.mq.edu.au/pdf/coversheet.pdf>

Assignments will not be accepted unless a correct coversheet is completed and signed.

A copy of the assignment must be kept as proof that the assignment was completed and submitted. Electronic copies of assignments will not be accepted. Assignments submitted by post will not be accepted. Late submissions must be accompanied by appropriate documentation (see [Special Consideration policy](#)), otherwise penalties may apply for late submissions; these will be indicated on the front page of the assignment.

Assignments will not be accepted after the return of marked assignments.

Due Dates for Assignments:

Assignment 1 – 5.00pm Wednesday, 7th September

Assignment 2 – 5.00pm Wednesday, 2nd November

After an assignment is submitted:

It is the responsibility of the student to check the Psychology Webpage (<http://www.psy.mq.edu.au/assrec/>) after submitting the assignment to ensure that his/her assignment has been received. The webpage will be updated by 5pm on day following the due date of the assignment. If an assignment is not noted as being received, it is the student's responsibility to immediately inform the staff in the Psychology Office in writing. The student will then be required to submit a fresh copy of the assignment and the date of receipt will be the date the Psychology Office was informed of the non-receipt in writing. Lateness penalty will be applied until the date the Psychology Office is informed of the non receipt of assignment.

Assignments will be returned to students during tutorials. The remaining assignments will then be available for collection from the Psychology Office. During Semester, the Psychology Office opening hours are from 10am to 5pm.

EXAMINATION SECTION:

Practical Test

10%

The practical test will be held in your practical class in Week 13. It will cover the material from Practicals 7 to 12 inclusive. No extra material will be permitted in the practical test. **Note:** you must sit this test in your allocated class. There will be opportunity for practice in Week 12.

Final Examination

50%

The final exam will be of 3 hours duration. Any necessary formulae and statistical tables will be attached to the final examination. Students will be permitted to take one A4 sheet, handwritten on both sides, into the final examination. Students should note that they must pass the final exam to have their coursework counted. The SNG allocated will be based on the final examination mark only for students that fail the final examination.

The University Examination timetable will be available in Draft form approximately eight weeks before the commencement of the examinations and in Final form approximately four weeks before the commencement of the examinations: <http://www.timetables.mq.edu.au/exam>

The only exception to not sitting an examination at the designated time is because of documented illness or unavoidable disruption. In these circumstances you may wish to consider applying for Special Consideration. Information about unavoidable disruption and the special consideration process is available at: <http://www.reg.mq.edu.au/Forms/APSCons.pdf>

A supplementary examination will only be granted if a student has satisfactory coursework. If a Supplementary Examination is granted as a result of the Special Consideration process the examination will be scheduled after the conclusion of the official examination period.

Please read the University policy regarding requests for Special Consideration for examinations and the granting of supplementary examinations, which can be found at: http://www.mq.edu.au/policy/docs/special_consideration/policy.html.

You are advised that it is Macquarie University policy not to set early examinations for individuals or groups of students. All students are expected to ensure that they are available until the end of the teaching semester, which is the final day of the official examination period.

Note: A student must meet the performance standard outlined on page 8 in **both** the coursework **and** the examination sections of this unit in order to be awarded a particular grade. Students **MUST** perform satisfactorily both in the coursework and in the final examination in order to pass the unit.

Student Support Services

Macquarie University provides a range of Academic Student Support Services. Details of these services can be accessed at: <http://www.student.mq.edu.au/>

Extra help is available for students enrolled in PSY122. Students can seek help from the following sources at various times when they think it may be beneficial to them:

Staff consultation hours

Members of the Statistics and Psychology Departments have consultation hours each week when they are available to help students enrolled in PSY122. These consultation hours will be listed on the doors of the Statistics staff located on the 5th floor of E4A and on the Web.

Unit Coordinator

For help with administrative matters students should contact the Unit Coordinator,

Tel: 9850 8257
Email: ammy.kwong@mq.edu.au

Numeracy Centre

The Numeracy Centre was established to help students having difficulties with numeracy based subjects. Any student who lacks the knowledge of mathematics needed for PSY122 is encouraged to seek the help of the Centre which is located in C5A225. The Centre offers a number of services including individual help, supplementary workshops and an opportunity to meet with other students to discuss problems.

PAL

Peer Assisted Learning (PAL) provides students with an opportunity to meet with former students to discuss the course material. More information about PAL sessions will be provided on Blackboard.

Computing Laboratories

SPSS is installed in the computing labs in E4B, and will be used in practical sessions and for assignments. *PsyQuiz*, *PracQuiz* and assignments can be completed in these rooms. You will need to bring a USB memory stick when using these computers. *PsyQuiz* and *PracQuiz* can be completed on any PC that has access to the Internet.

Opening hours of computing laboratories during the semester:

Monday - Friday: 8am - 10pm
Saturday – Sunday: 9am - 5pm

For opening hours during semester breaks see notices outside the rooms. Look for additional information on the whiteboards in the labs. Please note that computing labs may be booked for classes. Check the timetable on the door of the lab to make sure that the room is free.

Academic Honesty

The fundamental principle underlying the University Academic Honesty Policy is that "all staff and students act with integrity in the creation, development, application and use of ideas and information." More information regarding the Academic Honesty policy can be found at http://www.mq.edu.au/policy/docs/academic_honesty/policy.html. The University's penalties imposed for breaches of the Academic Honesty policy can be found in the Handbook of Undergraduate Studies or on the web at: http://www.mq.edu.au/policy/docs/academic_honesty/schedule_penalties.html

The policies and procedures explain what plagiarism is, how to avoid it, the procedures that will be taken in cases of suspected plagiarism and the penalties if you are found guilty. **Penalties may include a deduction of marks, failure in the unit, and/or referral to the University Discipline Committee.**

University Policy on Grading

Your final SNG and grade in Psy122 will be based on your work during semester and in the final examination as specified in the 'Assessment' section. The determination of your final SNG and Grade will be based on an assessment of your performance on individual assessment tasks against identified criteria and standards as set out in the section titled 'Assessment Criteria', and an assessment of overall performance in the unit. Final grades will be awarded on the basis of your overall performance and the extent to which you demonstrate fulfillment of the learning outcomes listed for this unit.

The relationship between SNGs and Final Grades is shown in the table below:

SNG Range	Grade	Standard
85 - 100	High Distinction (HD)	performance which meets all unit objectives in such an exceptional way and with such marked excellence that it deserves the highest level of recognition
75 - 84	Distinction (D)	performance which clearly deserves a very high level of recognition as an excellent achievement in the unit
65 - 74	Credit (Cr)	performance which is substantially better than would normally be expected of competent students in the unit
50 - 64	Pass (P)	performance which satisfies unit objectives
0 - 49	Fail (F)	performance which does not meet unit objectives

The grading policy is set out at <http://www.mq.edu.au/policy/docs/grading/policy.html>

Census Dates

These are the dates by which you must discontinue enrolment in a unit of study or course to avoid being liable for HECS charges or tuition fees for that unit or course. If you discontinue enrolment in a unit of study before the census data you will not be academically penalized.

The census date in Semester 2 is 31 August, 2011.

Grade Appeal

In case of problems arising from the final unit grade with the academic staff members, the first step is to request a review of your grade. The Department recommends that you submit a request in writing to the convenor of the unit in order to arrange a review session. If this review does not resolve the problem, a formal Grade Appeal can be lodged.

A draft version of the policy explaining the process can be found [here](#).

PSY122 Design and Statistics 1
Unit Schedule - Second Semester 2011

WEEK	LECTURE TOPIC	TEXT Chapter	ASSESSMENT DUE
W1 1 August	Research and Statistics	1.1-1.6, 2.11-2.16	Download and read Unit Outline Download learning materials from Blackboard. <i>PsyQuiz 1: 2/8 – 13/11</i>
W2 8 August	Describing Data	7.1-7.5, 7.7	<i>PsyQuiz 2: 8/8 – 26/8</i> <i>PracQuiz 2: 8/8 – 26/8</i>
W3 15 August	Research Design	2	<i>PracQuiz 3: 15/8 – 2/9</i>
W4 22 August	Experimental Research Design	3	<i>PracQuiz 4: 22/8 – 9/9</i>
W5 29 August	Correlational and Regression Designs	4	<i>PsyQuiz 3: 29/8 – 16/9</i> <i>PracQuiz 5: 29/8 – 16/9</i>
W6 5 September	Normal Distribution; Central Limit Theorem	7.11, 7.13,	<i>PsyQuiz 4: 5/9 – 7/10</i> <i>PracQuiz 6: 5/9– 7/10</i>
W7 12 September	Confidence Intervals		<i>PsyQuiz 5: 12/9 – 14/10</i> <i>PracQuiz 7: 12/9 – 14/10</i> Assignment 1 due: 10/09
Mid Semester Break: 19th September to 30th September. Public Holiday: 3rd October			
W8 4 October	Hypothesis Testing	9	<i>PsyQuiz 6: 4/10 – 21/10</i> <i>PracQuiz 8: 4/10 – 21/10</i>
W9 10 October	Comparisons	9	<i>PsyQuiz 7: 10/10 – 28/10</i> <i>PracQuiz 9: 10/10 – 28/10</i>
W10 17 October	Categorical Data Analysis	10.1	<i>PsyQuiz 8: 17/10 – 4/11</i> <i>PracQuiz 10: 17/10 – 4/11</i>
W11 24 October	Correlation and Linear Regression 1	10.2 - 10.5	<i>PracQuiz 11: 24/10 – 11/11</i>
W12 31 October	Correlation and Linear Regression 2	10.2 - 10.5	<i>PsyQuiz 9: 31/10 – 18/11</i> Assignment 2 due: 2/11
W13 7 November	Collecting Data and Ethics in Research	6	PRACTICAL TEST

(Note that all PsyQuizzes and PracQuizzes are due by 10.00pm)