The University of Southern Queensland

Course specification

This version produced 20 Dec 2007.
The current and official versions of the course specifications are available on the web at <http://www.usq.edu.au/coursespecification/current>.
Please consult the web for updates that may occur during the year.

Description: Multivariate Statistics B

<table>
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<th>Subject</th>
<th>Cat-nbr</th>
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<th>Term</th>
<th>Mode</th>
<th>Units</th>
<th>Campus</th>
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<td>Toowoomba</td>
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Academic group: FOSCI
Academic org: FOS005
Student contribution band: 1
ASCED code: 090701

STAFFING
Examiner: Hong Eng Goh
Moderator: Andrea Lamont-Mills

REQUISITES
Pre-requisite: PSY4010 and Students must be enrolled in Program BPSH or Program BSCH in Psychology major (12302)

RATIONALE
Students undertaking fourth year study in Psychology need to be able to evaluate a variety of statistical designs in published research. A large portion of published studies in Psychology use multivariate statistics. This course encourages students to develop both a practical and theoretical understanding of these statistical techniques, which will allow them to evaluate existing research and apply these insights to their own research. This course also forms a major foundation for student research at Masters and PhD level, and for the data analytic aspects of professional elective courses.

SYNOPSIS
The course reviews key aspects of research methodology and elementary statistics covered in undergraduate methodology courses, and uses this as a basis for exploring common multivariate statistical techniques. The techniques are covered in readings and learning activities. Students are also required to carry out analyses (including the evaluation of parametric assumptions) using statistical software. Students are required to demonstrate their practical competence in assignments and are encouraged to participate in ongoing email discussion forums designed to assist their learning. This course is also supported by two residential workshops during the semester where students can gain a further understanding of multivariate statistics and its role in contemporary research.

OBJECTIVES
On successful completion of this course students will be able to:
1. identify appropriate statistical techniques to address various kinds of research questions (Assessed In Both Assignments);
2. use SPSS to explore, visualise and evaluate typical univariate and multivariate research data and draw appropriate conclusions from the program output (Assessed In Both Assignments);
3. demonstrate competence in the reporting of multivariate findings (Assessed In Both Assignments).

**TOPICS**

<table>
<thead>
<tr>
<th>Description</th>
<th>Weighting (%)</th>
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<tbody>
<tr>
<td>1. Multiple Regression and Path Analysis - assessment of mediation and moderation.</td>
<td>60.00</td>
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<tr>
<td>2. Analysis of Variance - factorial designs, covariance designs, and multivariate designs</td>
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**TEXT and MATERIALS required to be PURCHASED or ACCESSED**

ALL textbooks and materials are available for purchase from USQ BOOKSHOP (unless otherwise stated). Orders may be placed via secure internet, free fax 1800642453, phone 07 46312742 (within Australia), or mail. Overseas students should fax +61 7 46311743, or phone +61 7 46312742. For costs, further details, and internet ordering, use the 'Textbook Search' facility at http://bookshop.usq.edu.au click 'Semester', then enter your 'Course Code' (no spaces).

(ISBN: 1412904129)

**REFERENCE MATERIALS**

Reference materials are materials that, if accessed by students, may improve their knowledge and understanding of the material in the course and enrich their learning experience.

SPSS Student Version 13 or higher. For Toowoomba students this is an optional purchase. However, for non-Toowoomba students this is a mandatory purchase.

**STUDENT WORKLOAD REQUIREMENTS**

<table>
<thead>
<tr>
<th>ACTIVITY</th>
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<tbody>
<tr>
<td>Assessment</td>
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<td>Residential Schools</td>
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ASSESSMENT DETAILS

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<tr>
<td>ASSIGNMENT 2</td>
<td>40.00</td>
<td>40.00</td>
<td>24 Jul 2007</td>
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NOTES
1. Assignment due dates to be advised by the examiner.

IMPORTANT ASSESSMENT INFORMATION

1. Attendance requirements:
   It is the students' responsibility to attend and participate appropriately in all activities
   (such as lectures, tutorials, laboratories and practical work) scheduled for them, and to
   study all material provided to them or required to be accessed by them to maximise their
   chance of meeting the objectives of the course and to be informed of course-related
   activities and administration.

2. Requirements for students to complete each assessment item satisfactorily:
   To satisfactorily complete an assessment item a student must achieve at least 50% of the
   marks or a grade of at least C-. Students do not have to satisfactorily complete each
   assessment item to be awarded a passing grade in this course. Refer to Statement 4 below
   for the requirements to receive a passing grade in this course.

3. Penalties for late submission of required work:
   If students submit assignments after the due date without prior approval then a penalty of
   20% of the total marks available for the assignment will apply for each working day late.

4. Requirements for student to be awarded a passing grade in the course:
   To be assured of receiving a passing grade a student must achieve at least 50% of the total
   weighted marks available for the course.

5. Method used to combine assessment results to attain final grade:
   The final grades for students will be assigned on the basis of the weighted aggregate of
   the marks obtained for each of the summative assessment items in the course.

6. Examination information:
   There is no examination in this course.

7. Examination period when Deferred/Supplementary examinations will be held:
   As there are no examinations in this course, there will be no deferred or supplementary
   examinations.

8. University Regulations:
   Students should read USQ Regulations 5.1 Definitions, 5.6. Assessment, and 5.10
   Academic Misconduct for further information and to avoid actions which might contravene
   University Regulations. These regulations can be found at the URL
   http://www.usq.edu.au/corporateservices/calendar/part5.htm or in the current USQ
   Handbook.

ASSESSMENT NOTES

9. Students may be required to provide a copy of assignments submitted for assessment
   purposes. Such copies should be dispatched to the USQ within 24 hours of receipt of a
   request to do so.
10 The due date for an assignment is the date by which a student must despatch the assignment to the USQ. The onus is on the student to provide proof of the despatch date, if requested by the Examiner.

11 In accordance with University Policy, the Examiner may grant an extension of the due date of an assignment in extenuating circumstances.

12 The Faculty will NOT accept submission of assignments by facsimile.

13 Students will require access to email and internet access to USQConnect for this course.