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
Please consult the web for updates that may occur during the year.

<table>
<thead>
<tr>
<th>Description: Evidence and Data</th>
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<tbody>
<tr>
<td>Subject</td>
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<tr>
<td>PSY</td>
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</tbody>
</table>

Academic group: FOSCI
Academic org: FOS005
Student contribution band: 1
ASCED code: 090701

STAFFING
Examiner: Graeme Senior
Moderator: Gerry Tehan

RATIONALE
The previous methodological course (PSY1010) studies emphasised critical thinking and problem solving. A crucial facet in being able to generate good solutions and to make sound decisions is the quality of the information on which these decisions are being based. This course examines the processes and procedures that ensure good quality data.

SYNOPSIS
This course starts by exploring the philosophical basis of science and outlines the assumptions that are being made in doing empirical research. The fundamental issue of error in measurement and how this affects variability in performance is addressed, along with validity and reliability. Readings focus on different approaches to scientific thought and widen the psychological context to include the biological sciences and history. Replicability is discussed as the most important aspect of ensuring good scientific outcomes.

OBJECTIVES
On completion of this course students will be able to:

1. describe the philosophical assumptions underpinning the scientific method (All assessment);
2. demonstrate how measurement error impacts upon experimental outcomes and describe how such error can be controlled using experimental procedures (All assessment);
3. describe and demonstrate how evidence needs to be both valid and reliable and describe the factors that inhibit or promote validity and reliability (All assessment);
4. describe and demonstrate the role of replicability in ensuring good data and reliable evidence (All assessment).
TOPICS

<table>
<thead>
<tr>
<th>Description</th>
<th>Weighting (%)</th>
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<tbody>
<tr>
<td>1. Epistemology and the Philosophy of Science</td>
<td>10.00</td>
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<tr>
<td>2. The problem of error variance</td>
<td>20.00</td>
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<tr>
<td>3. Validity</td>
<td>20.00</td>
</tr>
<tr>
<td>4. Reliability</td>
<td>20.00</td>
</tr>
<tr>
<td>5. Experimental approaches to ensuring quality data</td>
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</tr>
<tr>
<td>6. Replicability</td>
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</table>

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).

Stanovich, KE 2007, How to think straight about psychology, 8th edn, Allyn & Bacon, Boston, Mass.

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.

STUDENT WORKLOAD REQUIREMENTS

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>HOURS</th>
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<tbody>
<tr>
<td>Assessment</td>
<td>55.00</td>
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<tr>
<td>Class Contact</td>
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ASSESSMENT DETAILS

<table>
<thead>
<tr>
<th>Description</th>
<th>Marks out of</th>
<th>Wtg(%)</th>
<th>Due date</th>
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<tbody>
<tr>
<td>ASSIGNMENT 1</td>
<td>20.00</td>
<td>20.00</td>
<td>24 Jul 2007</td>
</tr>
<tr>
<td>(see note 1)</td>
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<td></td>
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<tr>
<td>ASSIGNMENT 2</td>
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<td>20.00</td>
<td>24 Jul 2007</td>
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<tr>
<td>TEST 1 M/C</td>
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<td>(see note 3)</td>
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<tr>
<td>TEST 2 SHORT ANSWER/ESSAY</td>
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<tr>
<td>TEST 3 M/C</td>
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NOTES

1. To be announced by examiner.
2. To be announced by examiner
3. Date of test to be announced by examiner.
4. Date of test to be announced by examiner.
5. Date of test to be announced by 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 complete each of the assignments satisfactorily, students must obtain at least 50% of
   the marks available for each assignment.

3 Penalties for late submission of required work:
   If students submit assignments after the due date without prior approval then a penalty of
   5% 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 (or grades) 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 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.

10 Students must retain a copy of each item submitted for assessment. This must be produced within five days if required by the Examiner.

11 Access to email, discussion groups and the internet is a departmental requirement. Students are expected to open their university provided email account and check it regularly for personal communication. Information sent this way will be regarded as being receivable.