Description: Research Practice and Ethics A

<table>
<thead>
<tr>
<th>Subject</th>
<th>Cat-nbr</th>
<th>Class</th>
<th>Term</th>
<th>Mode</th>
<th>Units</th>
<th>Campus</th>
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<tr>
<td>SCI</td>
<td>4405</td>
<td>30318</td>
<td>1, 2004</td>
<td>ONC</td>
<td>1.00</td>
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Academic group: FOSCI
Academic org: FOS002
Student contribution band: 2
ASCED code: 019999

STAFFING
Examiner: Mark Sutherland
Moderator: Michael Kotiw

RATIONALE
In the contemporary world, science and technology are increasingly seen as fundamental for human progress and survival. As the power of technology has increased, ethical considerations in the practice of science have become a critical component in the interaction between science and society. Additionally, the limited ability of society to support scientific research has led to ever increasing competition for these resources and emphasised the need for skills in both scientific communication and information technology. This course is designed to allow students to appreciate the role of philosophy and ethics in the practice of science and to be aware of, and develop, a range of communication skills required to successfully pursue a career in scientific research.

SYNOPSIS
This course is designed to allow students to appreciate the role of communication skills required in the successful pursuit of a career in scientific research and to appreciate the role of philosophy in science. The modular structure of the course is designed to allow the student to develop skills in particular aspects of scientific communication. Topics include: Computer based information retrieval, experimental design and analysis, verbal and written scientific communication skills (debates, seminars, posters and papers) and, the interaction between science and society with an emphasis on the philosophy of science.

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

- demonstrate skills in verbal presentation of scientific data;
- demonstrate skills in the written presentation of scientific data;
- demonstrate skills in the preparation and presentation of research grant applications;
• use computerised data base searching facilities;
• demonstrate an understanding of the varieties of scientific method and their historical evolution.

TOPICS

<table>
<thead>
<tr>
<th>Description</th>
<th>Weighting (%)</th>
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<tbody>
<tr>
<td>1. The course will consist of up to six modules of which four will be assessed. Modules to be undertaken, from the following list, will be designated by the course examiner at the commencement of the semester. Each module will normally consist of two 2 hour sessions led by a module coordinator. 1. Database searching and referencing</td>
<td>10.00</td>
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<tr>
<td>2. Powerpoint presentations</td>
<td>10.00</td>
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<tr>
<td>3. Experimental Design and Analysis</td>
<td>20.00</td>
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<td>4. Scientific Writing</td>
<td>20.00</td>
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<td>5. Conference Presentation</td>
<td>20.00</td>
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<tr>
<td>6. Philosophy of Science</td>
<td>20.00</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).

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.

(ISBN 0 521 42915 3)

(ISBN 0-387-94581-4)

(ISBN: 1 86448 050 5)
(ISBN 0 521 36760 3)

(ISBN 0 195 05736 8)

(ISBN 0 471 33566 5)

(ISBN 1 55786 395 4)

(ISBN 0 521 40741 9)


(ISBN 0 522 84471 5)

(ISBN 0 521 43861 6)

(An expanded version of The two cultures and the scientific revolution.)

**STUDENT WORKLOAD REQUIREMENTS:**

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>HOURS</th>
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<tbody>
<tr>
<td>Private Study</td>
<td>140.00</td>
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<tr>
<td>Tutorial</td>
<td>20.00</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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<tr>
<td>MODULE 1: POWERPOINT INTRO</td>
<td>1.00</td>
<td>0.00</td>
<td>02 Mar 2004</td>
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<tr>
<td>MODULE 2: LIBRARY ORIENTATION</td>
<td>1.00</td>
<td>0.00</td>
<td>02 Mar 2004</td>
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<tr>
<td>MODULE 3: ASSIGNMENT</td>
<td>1.00</td>
<td>25.00</td>
<td>02 Mar 2004</td>
</tr>
<tr>
<td>MODULE 4: ASSIGNMENT</td>
<td>1.00</td>
<td>25.00</td>
<td>02 Mar 2004</td>
</tr>
<tr>
<td>MODULE 5: SEMINAR</td>
<td>1.00</td>
<td>25.00</td>
<td>02 Mar 2004</td>
</tr>
<tr>
<td>MODULE 6: DISCUSSION</td>
<td>1.00</td>
<td>25.00</td>
<td>02 Mar 2004</td>
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NOTES:
1. Further details about the due dates and assessments for Modules 3 - 6 will be provided 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 complete each of the assessment items satisfactorily, students must obtain the one mark available for that assessment item.

3. Penalties for late submission of required work:
   If students submit assignments after the due date without prior approval they can expect to be given a Fail grade for the course.

4. Requirements for student to be awarded a passing grade in the course:
   To be assured of a passing grade, students must complete all summative assessment items satisfactorily.

5. Method used to combine assessment results to attain final grade:
   As P is the only passing grade available for this course, all students who are qualified for a passing grade as in Assessment 4 will be given a grade of P. Other students will be given either a Failing grade or an incomplete grade.

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

7. Examination period when Deferred/Supplementary examinations will be held:
   There will be no Deferred or Supplementary examinations in this course.

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.