Description: General Science

<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>
</tr>
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<tr>
<td>TPP</td>
<td>7155</td>
<td>67230</td>
<td>2</td>
<td>EXT</td>
<td>1.00</td>
<td>Toowoomba</td>
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**Academic group:** LTSUN  
**Academic org:** LTSUNT  
**Student contribution band:** 2  
**ASCED code:** 019999

**STAFFING**

Examiner: Tas Bedford  
Moderator: Janet Taylor

**RATIONALE**

It is recommended that students contemplating undergraduate study at a tertiary institution in either Nursing or General Science be able to demonstrate certain prerequisite skills, knowledge and attitudes in science. This course will provide students who do not feel confident about their knowledge of science with the basic concepts and skills necessary for further pursuit of the subject in both a Nursing and General Science undergraduate degree context. It may also be useful for students who want to expand their understanding of science prior to entry into Education- or Engineering- related degrees or for students who want to develop appreciation of the nature of science.

**SYNOPSIS**

The course focuses on the underlying concepts of science. Content coverage includes the scientific method, measurement in science, the human body, the nature of matter, humans and technology, and safety in science. The content will be presented in themes which in turn will draw upon students' understanding of themselves and their everyday experiences. The self-paced structure of the course will allow students to work through the material at a pace suitable to their individual needs. The course is designed to incorporate theoretical and practical components of science, including simple experiments that can be carried out at home and the use of multimedia materials to enhance presentation of the course. The course is designed to increase student problem solving skills in the subject area.

**OBJECTIVES**

In the process of successful completion of this course, students should be able to:

1. effectively communicate an understanding of scientific concepts that are an essential part of the foundation for successful tertiary study of science and nursing;
2. apply analytical and problem-solving skills in a range of theoretical and experimental contexts;
3. demonstrate an understanding of the scientific concepts in this course through a variety of applications in the real world.

**TOPICS**

<table>
<thead>
<tr>
<th>Description</th>
<th>Weighting (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The nature of science - experimental design, measurement, communicating scientific findings.</td>
<td>15.00</td>
</tr>
<tr>
<td>2. Health and safety - workplace, health and safety issues, the respiratory, circulatory and muscular-skeletal systems, light and optics, sound.</td>
<td>35.00</td>
</tr>
<tr>
<td>3. Chemistry and the human body - models of the atom, physical and chemical properties of substances, the periodic table, chemical reactions, human digestion system, human lymphatic system.</td>
<td>25.00</td>
</tr>
<tr>
<td>4. The bionic human - DC electricity, human nervous system, human circulatory system, physical and chemical properties of substances.</td>
<td>25.00</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).

No texts or special materials are required to be purchased in order to study this course.

**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>
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</tr>
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<tbody>
<tr>
<td>Assessment</td>
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<td>Directed Study</td>
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<td>Private Study</td>
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ASSESSMENT DETAILS

<table>
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<tr>
<th>Description</th>
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<th>Wg(%)</th>
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<tbody>
<tr>
<td>ASSIGNMENT 1</td>
<td>10.00</td>
<td>5.00</td>
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<td>ASSIGNMENT 2</td>
<td>20.00</td>
<td>10.00</td>
<td>24 Aug 2007</td>
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<tr>
<td>CMA TEST</td>
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<td>15.00</td>
<td>21 Sep 2007</td>
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<td>(see note 1)</td>
<td></td>
<td></td>
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<tr>
<td>ASSIGNMENT 3</td>
<td>40.00</td>
<td>20.00</td>
<td>05 Oct 2007</td>
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<tr>
<td>ASSIGNMENT 4</td>
<td>20.00</td>
<td>10.00</td>
<td>19 Oct 2007</td>
</tr>
<tr>
<td>2 HR RESTRICTED EXAMINATION</td>
<td>100.00</td>
<td>40.00</td>
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</table>

NOTES
1. Understanding Of Concepts And Principles

IMPORTANT ASSESSMENT INFORMATION

1. Attendance requirements:
   There are no attendance requirements for this course, however, it is the students’
   responsibility to study all material provided to them, or required to be accessed by them,
in relation to achieving 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. To complete the examination satisfactorily,
students must obtain at least 50% of the marks available for the examination.

3. Penalties for late submission of required work:
   Students are strongly encouraged to discuss any problems, regarding their ability to submit
assignments on time, with the lecturer prior to the due dates of the assignments. If students
submit assignments after the scheduled due date without prior approval of an extension
of the due date, then a penalty of 5% of the total marks available for the assignment may
apply for each working day late.

4. Requirements for student to be awarded a passing grade in the course:
   To be awarded a passing grade a student must attempt all of the summative assessment
items, achieve at least 50% in the examination and achieve an aggregated mark of at least
50% in the total marks allocated for the assignments. Students who do not qualify for a
Passing grade may, at the discretion of the Examiner, be awarded a Supplementary
Examination and/or assigned additional work to demonstrate to the Examiner that they
have achieved the required standard. It is expected that such students have gained at least
40% of the total marks available for all summative assessment items.

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:
   Examinations in this course are restricted examinations. In a Restricted Examination
candidates are allowed access to specific materials during the examination. The only
materials that candidates may use in the restricted examination for this course are: writing
materials (non-electronic and free from material which could give the student an unfair
advantage in the examination); calculators which cannot hold textual information (students must indicate on their examination paper the make and model of any calculator(s) they use during the examination); 1 A4 page of hand written or typed notes (written on both sides); English translation dictionaries (but not technical dictionaries). A Periodic Table and formulae sheets are provided in the examination booklet.

7 Examination period when Deferred/Supplementary examinations will be held:
Any Deferred or Supplementary examinations for this course will be held during the next examination period.

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 printed version of the current USQ Handbook

ASSESSMENT NOTES

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

2 The Faculty will normally only accept assessments that have been written, typed or printed on paper-based media.

OTHER REQUIREMENTS

1 Students should have a knowledge of Mathematics Tertiary Preparation Level A or equivalent.