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.

| Description: Science for Primary and Early Childhood Educators A |
|---|---|---|---|---|---|
| Subject | Cat-nbr | Class | Term | Mode | Units |
| EDU | 5432 | 63013 | 1, 2007 | WEB | 1.00 |

| Campus |
| Toowoomba |

ACADEMIC GROUP:

FOEDU

ACADEMIC ORG:

FOE002

STUDENT CONTRIBUTION BAND:

National Priority Teaching

ASCED CODE:

079999

STAFFING

Examiner: John Green
Moderator: Bruce Waldrip

OTHER REQUISITES

State law in Queensland (Australia) requires that all adults working/undertaking professional experience/researching with children under the age of 18, in the state of Queensland are required to possess a current suitability card (Blue Card). (See "Other Requirements" for further information.)

Also see: http://www.childcomm.qld.gov.au/employment/bluecard/informationSheets.html

RATIONALE

It is recognised that many postgraduate students need the opportunity to investigate fundamental concepts of physical, chemical, biological and earth science so that they can become more confident in developing learning in early childhood and primary students and to engage them in meaningful and authentic learning.

SYNOPSIS

Students will examine some selected fundamental concepts of the biological and earth sciences, in relation to teaching the science key learning areas in the primary school. Children's understandings of their world and how they learn will be examined.

NOTES: 1. This course is available through INTERNET (WEB) DELIVERY ONLY. 2. There are NO print materials for this course. 3. For details of the technical requirements and accessing Internet study materials, please consult the following URL: http://www.usqonline.com.au.

OBJECTIVES

The course objectives define the student learning outcomes for a course. The assessment item(s) that may be used to assess student achievement of an objective are shown in parenthesis. On completion of this course students will be able to:

1. understand and apply to their classroom selected aspects of scientific concepts; (Assignment 1)
2. understand and can effectively convey to students the major concepts, principles, theories, laws, and interrelationships of science concepts; (Assignment 1; Project)
3. understand and can effectively convey to students the unifying concepts of science; (Assignment 1; Project)
4. understand and can effectively convey to students important personal and technological applications of science in their chosen topics; (Assignment 1)
5. understand and can effectively design, conduct, report and evaluate scientific investigations; (Project)
6. understand and effectively use mathematics to process and report data and solve problems in their chosen topics. (Project)

TOPICS

<table>
<thead>
<tr>
<th>Description</th>
<th>Weighting (%)</th>
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<tbody>
<tr>
<td>Students will select 5 topics from the following list for exploration, depending on individual student needs. The topics will be weighted equally at 20% each. The similarity and diversity of living things and their relationships with each other and their environment; Classification in systematically organising living things; Relation of the structure of organisms to their function; Ecosystems as functioning; Factors affecting survival of living things; Genetic basis of inheritance of characteristics; Properties and uses of matter; Chemical change; Properties of matter and model arrangements of constituent particles; Physical changes; Investigate the processes to which the Earth and atmosphere are subject and learn about the Impact these changes can have on people and other organisms; Major features of the physical environment; The origin of rocks and minerals and the uses to which they are put; Relative movements of the sun, moon, Earth and constellations and observable effects; Concepts of energy and force as a way of explaining physical phenomena, light, sound, heat and electricity and some of their applications; Transformations of energy and energy conservation; Model systems that control and use energy, mechanical, magnetic and electrostatic forces and their effects on the motion or stability of objects; Effects of combinations of forces on objects and the operation of simple mechanical systems.</td>
<td>100.00</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).

Nil
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>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment</td>
<td>50.00</td>
</tr>
<tr>
<td>Directed Study</td>
<td>40.00</td>
</tr>
<tr>
<td>Private Study</td>
<td>70.00</td>
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</tbody>
</table>

ASSESSMENT DETAILS

<table>
<thead>
<tr>
<th>Description</th>
<th>Marks out of</th>
<th>Wtg(%)</th>
<th>Due date</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASSIGNMENT 1</td>
<td>50.00</td>
<td>50.00</td>
<td>23 Apr 2007</td>
</tr>
<tr>
<td>PROJECT</td>
<td>50.00</td>
<td>50.00</td>
<td>18 Jun 2007</td>
</tr>
</tbody>
</table>

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 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 at least a grade of C- for each assessment item.

3 Penalties for late submission of required work:
   If students submit assignments after the due date without prior approval then a penalty of 10% 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 complete and submit of all the summative assessment items and 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:
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.

ASSESSMENT NOTES

1 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.

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

3 The examiner may grant an extension of the due date of an assignment in extenuating circumstances.

4 In the event that a due date for an assignment falls on a local public holiday in their area, the due date for the assignment will be the next day. Students are to note on the assignment cover the date of the public holiday for the Examiner's convenience.

5 Students who have undertaken all of the required assessments in a course but who have failed to meet some of the specified objectives of a course within the normally prescribed time may be awarded the temporary grade: IM (Incomplete - Make up). An IM grade will only be awarded when, in the opinion of the examiner, a student will be able to achieve the remaining objectives of the course after a period of non-directed personal study.

6 Students who, for medical, family/personal, or employment-related reasons, are unable to complete an assignment or to sit for an examination at the scheduled time may apply to defer an assessment in a course. Such a request must be accompanied by appropriate supporting documentation. One of the following temporary grades may be awarded IDS (Incomplete - Deferred Examination; IDM (Incomplete Deferred Make-up); IDB (Incomplete - Both Deferred Examination and Deferred Make-up).

7 When there is more than one marker for a single item of assessment, the distributed patterns and means for the different markers will be compared and marks adjusted if necessary.

8 Marking criteria will depend upon the nature of individual projects. Marking criteria are provided in course material as mark sheets/guides or as part of assignment specifications.

9 Student workload requirements are as required for the completion of the study and as negotiated between student and supervisor.

10 Summative assessment items will receive a numerical score. The course examiner is responsible for awarding grades.

OTHER REQUIREMENTS

1 Students will require access to e-mail and Internet access to USQConnect for this course.
Students enrolling in WEB courses MUST have ongoing convenient and reliable access to the Internet in order to access course materials and participate in activities that will affect assessment. The levels of equipment required may change from time to time, with the most recent specification listed at http://www.usq.edu.au/currentstudents/computingstandards/default.htm. You can check whether your computer system meets these requirements from USQAssist (http://usqassist.usq.edu.au/).

IMPORTANT NOTE: Working with Children: State law in Queensland requires that all adults (including university students, pre-service educators, trainers, vocational teachers, industry educators) working with children under the age of 18, in the state of Queensland*, obtain approval before commencing such work. Many education courses include a practical component (professional experience, project work, research, assessment etc.) that may require engagement with children under the age of 18. It is your responsibility to ensure that you possess a current suitability card (Blue Card) before commencing any practical components of this course. DO NOT PARTICIPATE IN ANY PRACTICAL EXPERIENCE WITH CHILDREN UNDER 18 UNLESS YOU POSSESS A CURRENT 'BLUE CARD'. For further information: http://www.childcomm.qld.gov.au/employment/bluecard/informationSheets.html. *If you are undertaking practical experience outside the state of Queensland, Australia you should check local requirements.