Description: Science for Primary and Early Childhood Educators B

Subject Cat-nbr Class Term Mode Units Campus
EDU 8433 70274 3, 2007 WEB 1.00 Toowoomba

Academic group: FOEDU
Academic org: FOE002
Student contribution band: National Priority Teaching
ASCED code: 079999

STAFFING
Examiner: Bruce Waldrip
Moderator: John Green

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.)

RATIONALE
It is recognised that many postgraduate students need the opportunity to investigate fundamental concepts of materials, systems, biological and earth science as well as ICT 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 learn to manipulate materials and investigate how characteristics of materials can influence the nature of technological products, investigate how systems and their associated factors have potential to impact on local and global environments. Students explore simple systems, with a particular focus on movement and movement mechanisms, discover how a variety of simple systems operate and construct their own simple systems products. Students investigate curriculum resources available for teaching particular science topics, including written materials, multimedia, computer software and industry and community support services; conduct a case study of the understanding and learning of a selected science concept by children at primary school level; and design, implement and evaluate a science unit or a science project related to the local school community extending over at least six hours in a primary school. 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

On completion of this course students will be able to:

1. Manipulate materials and investigate how characteristics of materials can influence the nature of technological products (Assignments 1 & 2)
2. Investigate how systems and their associated factors have potential to impact on local and global environments (Assignment 1)
3. Explore simple systems, with a particular focus on movement and movement mechanisms, discover how a variety of simple systems operate and construct their own simple systems products (Assignments 1 & 2)
4. Investigate curriculum resources available for teaching particular science topics, including written materials, multimedia, computer software and industry and community support services (Assignment 2)
5. Conduct a case study of the understanding and learning of a selected science concept by children at primary school level; and design, implement and evaluate a science unit or a science project related to the local school community extending over at least six hours in a primary school. (Project)

TOPICS

<table>
<thead>
<tr>
<th>Description</th>
<th>Weighting (%)</th>
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<tbody>
<tr>
<td>1. Explore simple systems, with a particular focus on movement and movement mechanisms</td>
<td>15.00</td>
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<tr>
<td>2. Identifying and evaluating appropriate curriculum resources available for teaching particular science topics, including written materials, multimedia, computer software and industry and community support services</td>
<td>20.00</td>
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<td>3. Identifying and addressing students understanding of selected science topics</td>
<td>25.00</td>
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<tr>
<td>4. Developing and implementing teaching strategies that promote conceptual change in children</td>
<td>40.00</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.


Peters, JM & Gega, PC 2006, Concepts and inquiries in elementary science, 5th edn, Merrill, Upper Saddle River, NJ.


**STUDENT WORKLOAD REQUIREMENTS**

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>HOURS</th>
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<tbody>
<tr>
<td>Assessment</td>
<td>60.00</td>
</tr>
<tr>
<td>Directed Study</td>
<td>40.00</td>
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<tr>
<td>Private Study</td>
<td>70.00</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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</thead>
<tbody>
<tr>
<td>ASSIGNMENT 1</td>
<td>100.00</td>
<td>30.00</td>
<td>20 Nov 2007</td>
</tr>
<tr>
<td>PROJECT</td>
<td>100.00</td>
<td>40.00</td>
<td>20 Nov 2007</td>
</tr>
<tr>
<td>ASSIGNMENT 2</td>
<td>100.00</td>
<td>30.00</td>
<td>20 Nov 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 50% of the marks available for each assessment item.

3. Penalties for late submission of required work:
   If students submit assignments after the due date without (prior) approval of the examiner then a penalty of 5% of the total marks gained by the student for the assignment may apply for each working day late up to ten working days at which time a mark of zero may be recorded. No assignments will be accepted after model answers have been posted.

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:
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.

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 24 hours 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 The Faculty will normally only accept assessments that have been written, typed or printed on paper-based media, except for WEB courses.

9 Marking criteria are provided in course material as mark sheets/guides or as part of assignment specifications.

10 All assessment items must be submitted.

11 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.

2 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.