Description: Effective Pedagogies in Science/Mathematics Education

<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>EDU</td>
<td>8421</td>
<td>67231</td>
<td>2, 2007</td>
<td>WEB</td>
<td>1.00</td>
<td>Toowoomba</td>
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</table>

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

STAFFING

Examiner: Bruce Waldrip
Moderator: Karen Spence

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

All teachers of Maths/Science need to have an understanding of how a range of strategies will promote learning that includes intellectual quality, sustained conversation, depth of knowledge and understanding, recognition of difference, supportive classroom environments and connectedness to the world.

SYNOPSIS

This course will help teachers to choose and develop strategies in relation to what they are teaching and in relation to the variable styles, approaches and backgrounds of their students. 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 successful completion of this course students will be able to:

1. consider and understand the backgrounds and preferred learning styles of their students; (Assignment 1 & 2)
2. identify the repertoires of practice and operational fields to be targeted; (Assignment 1 & 2)
3. evaluate their own array of teaching strategies and select and apply the appropriate ones; (Assignment 1 & 2)
4. apply effective pedagogical practices to the uniques needs of the science and mathematical classroom, including the practical requirements; (Assignment 2)
5. Demonstrate competence in and appropriate use of language and literacy, including spelling, grammar, punctuation and bibliographic referencing. (Assignment 2)

**TOPICS**

<table>
<thead>
<tr>
<th>Description</th>
<th>Weighting (%)</th>
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<tbody>
<tr>
<td>1. Establishing learning environments</td>
<td>40.00</td>
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<tr>
<td>2. Learning environments and outcome measures</td>
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</tr>
<tr>
<td>3. Creating change in learning environment</td>
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</tr>
<tr>
<td>4. Monitoring the change</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.

**STUDENT WORKLOAD REQUIREMENTS**

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>HOURS</th>
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<tbody>
<tr>
<td>Assessment</td>
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<tr>
<td>Directed Study</td>
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<td>Private Study</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>ASSIGNMENT 1</td>
<td>999.00</td>
<td>50.00</td>
<td>25 Sep 2007</td>
</tr>
<tr>
<td>ASSIGNMENT 2</td>
<td>999.00</td>
<td>50.00</td>
<td>25 Sep 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 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 submit all of the summative assessment items and achieve at least 50% of the available weighted marks for the aggregate of those 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:
   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/SECARIAT/calendar/Part5/ or in the printed version of 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, such as a Show holiday, 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 will depend upon the nature of individual projects.

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

11 All assessment items must be submitted.

12 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.