The University of Southern Queensland

Course Specification

Description: Exploring Science & Technology in Early Childh'd

<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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</thead>
<tbody>
<tr>
<td>ECE</td>
<td>2017</td>
<td>25210</td>
<td>2, 2003</td>
<td>EXT</td>
<td>1.00</td>
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Academic Group: FOEDU
Academic Org: FOE004
HECS Band: 1
ASCED Code: 070101

STAFFING
Examiner: Lyn Bower
Moderator: Noel Geoghegan

SYNOPSIS
This course will examine the importance of developing children's creativity, curiosity, problem solving skills and sense of wonder and appreciation of the environment, in the exploration of science and technology. The course will focus on different approaches to teaching science and the development of positive attitudes for life long learning while taking into account children's cultural and diverse backgrounds. It aims to develop student's creativity, problem solving and analytical skills and their passion for science and technology.

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

- demonstrate creative and problem-solving skills in their approach to science and technology;
- discuss the value of hands-on experiences for children in science activities;
- explain a number of approaches to teaching science;
- demonstrate how to listen effectively and respond to children's questions;
- demonstrate essential questioning techniques to further extend children's knowledge of science and technology;
- select, organise and present suitable materials for science experiences for young children;
- demonstrate the ability to develop children's appreciation of the natural environment;
- demonstrate some knowledge of science content and an ability to effectively access such knowledge through a variety of sources including web-based materials;
- develop an enthusiastic scientific attitude and an understanding of developing positive attitudes in young children;
- analyse curriculum documents and appropriate assessment methods;
discuss the importance and impact of culture, values and diversity.

TOPICS

<table>
<thead>
<tr>
<th>Description</th>
<th>Weighting (%)</th>
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<tbody>
<tr>
<td>1. Learning and teaching styles</td>
<td>5.00</td>
</tr>
<tr>
<td>2. Creative problem solving</td>
<td>15.00</td>
</tr>
<tr>
<td>3. Listening and responding to young children's questions and effective</td>
<td>10.00</td>
</tr>
<tr>
<td>questioning</td>
<td></td>
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<tr>
<td>4. Approaches to teaching science in ECE</td>
<td>15.00</td>
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<tr>
<td>5. Environmental science in early childhood - teaching appreciation and</td>
<td>10.00</td>
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<tr>
<td>developing a sense of wonder</td>
<td></td>
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<tr>
<td>6. Technology in early childhood</td>
<td>15.00</td>
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<tr>
<td>7. Cultural and diverse backgrounds</td>
<td>5.00</td>
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<tr>
<td>8. Using web-based materials</td>
<td>10.00</td>
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<tr>
<td>9. Curriculum documents and other resources</td>
<td>5.00</td>
</tr>
<tr>
<td>10. Using resources - community and parents</td>
<td>10.00</td>
</tr>
</tbody>
</table>

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.

1998,  


Bentley, D. & Watts, M. 1994, Primary Science and Technology, Open University Press, Buckingham PA.


Christianson, C. 1995, Magnets, Early Childhood, Hawker Brownlo, Highbett VIC.


Rockwell, R., Williams, R. & Sherwood, E. 1992, *Everybody has a Body: Science from Head to Toe*, Gryphon House, Mr Rainer.


STUDENT WORKLOAD REQUIREMENTS

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment</td>
<td>30</td>
</tr>
<tr>
<td>Directed Study</td>
<td>90</td>
</tr>
<tr>
<td>Private Study</td>
<td>45</td>
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ASSESSMENT DETAILS

<table>
<thead>
<tr>
<th>Description</th>
<th>Marks Out of</th>
<th>Wtg(%)</th>
<th>Required</th>
<th>Due Date</th>
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<tbody>
<tr>
<td>ASSIGNMENT 1</td>
<td>999.00</td>
<td>50.00</td>
<td>Y</td>
<td>09 Sep 2003</td>
</tr>
<tr>
<td>ASSIGNMENT 2</td>
<td>999.00</td>
<td>50.00</td>
<td>Y</td>
<td>31 Oct 2003</td>
</tr>
</tbody>
</table>

NOTES:

- 999 indicates that this course will be graded using one of the following letter grades: HD, A, B, C, F, or Incomplete. Plus and minus may be used with each of these letter grades.

IMPORTANT ASSESSMENT INFORMATION

1 Attendance requirements:
   (a) 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 assignments satisfactorily, students must obtain at least a grade of C- for each assignment.

3 Penalties for late submission of required work:
   If assignments are submitted after the due date without an approved extension of time, University penalties may be applied.

4 Requirements for student to be awarded a passing grade in the course:
   (c) To be assured of receiving a passing grade a student must achieve at least 50% of the available weighted marks for the 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 grades obtained for each of the summative assessment items in the course.

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

7 Examination period when Deferred/Supplementary examinations will be held:
(d) 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 1. Letter grades will be used for summative assessment items in this course. 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. In accordance with
   University's Assignment Extension Policy (Regulation 5.6.1), the examiner of a
course may grant an extension of the due date of an assignment in extenuating
   circumstances. 4. The Faculty will normally only accept assessments that have
   been written, typed or printed on paper-based media. 5. The Faculty will NOT
   accept submission of assignments by facsimile.