Module Code: SOL
NQF level: 7
Credit Value: 10
Study duration: 6 weeks

The Science of Learning – Practical Implications for Teaching

Module description:
The module will provide students with a summary of existing cognitive scientific research into how people learn and the consequent implications for best practice in approaches to teaching and learning.

The module will allow students to review the current consensus around basic cognitive principles and provide them with the opportunity to critically evaluate approaches to teaching & learning and develop their own pedagogic practice based on these principles.

This module aims to:
▪ Provide an introductory overview of the relevant research into cognitive science related to learning and teaching
▪ Provide students with an opportunity to critically evaluate approaches to teaching and learning in light of research evidence about how people learn

Learning outcomes
On completion of this module, students will be able to:
▪ Describe the salient features of research findings related to learning and teaching, demonstrating understanding of how they apply in practice to approaches to teaching and learning
▪ Critically evaluate instructional materials and methods with reference to the research literature
▪ Apply evidence-based judgements in planning and delivering instruction, and use appropriate methods to evaluate the impact of different approaches

Syllabus
▪ An introductory overview of the research findings related to learning and teaching
▪ Evaluating instructional courses, materials, assessments and pedagogy in light of the research
▪ Approaches and skills required in developing effective instructional materials and pedagogy
▪ The role of learning outcomes in developing curriculum and assessments
▪ Using data and action research to inform teaching and learning approaches
▪ An introductory overview of action research and data collection methods in educational practice
▪ Analysing action research findings & applying them in practice to enhance student learning

Learning and teaching methods
Input will be delivered through specified reading materials and pre-recorded lecture-casts provided on the UnEO Learning Platform. This is supported by guided discussion forums, and biweekly online question and answer sessions (using synchronous communication software and application sharing facility). The pre-recorded lecture-casts and online Q & A sessions will include referenced use of selected case studies drawn from the reading materials and the tutors’ professional/educational contexts and experience. Self-managed learning will supplement input and to this end students will be given direction on required and indicative reading, including relevant websites, and encouraged to identify and share appropriate web-based resources with their peers.

The pedagogical approach for this module is informed by the principles of collaborative enquiry and constructionism. Collaborative enquiry is supported through our internet-mediated learning platform, the aim of which is to facilitate the activity of the learning community through online dialogue, peer discussion and feedback. The participants’ subject understanding, engagement and learning experience will be enhanced through interactions in which they explain their perceptions, discuss their views, share their experience, and receive feedback from peers and tutors.

Description of unit of assessment

<table>
<thead>
<tr>
<th>Description of unit of assessment</th>
<th>Length/Duration</th>
<th>Submission Date</th>
<th>Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaborative Learning Task:</td>
<td>1000 words</td>
<td>Week 3</td>
<td>30%</td>
</tr>
<tr>
<td>Critically review a set of instructional materials.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Presentation</td>
<td>5-10 minutes</td>
<td>End of module</td>
<td>70%</td>
</tr>
<tr>
<td>Present a critical evaluation of a course/module or curriculum that is delivered in your current teaching context*</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*NB. If student is not employed in a teaching institution, case study materials may be used.