

Assessment One Tasks and Criteria

4.1 Lesson Planning Assessment

Note: the candidate must engage in lesson planning and review for all teaching sessions during the academic year. **For the assessment**, each candidate provides **four** completed lesson plans and reviews for a module(s) that they teach (two in semester 1 and a further two in semester 2). **You are required to record outputs from your four lesson plans on the Moodle/VLE CRN 51389.**

TEACHING SESSION PLAN	
Module: Ecology of Aquatic Environments	Level / Stage (6,7,8) L7 & L8 Year: Third year
Title of session/ topic: Lake Ecosystems	
Mark the type of session: Lecture <input checked="" type="checkbox"/> Tutorial <input type="checkbox"/> Lab <input type="checkbox"/> Studio <input type="checkbox"/> Workshop <input type="checkbox"/>	
Module Outcome (What module outcome(s) is the class/session aligned to): The module outcomes are to: <ul style="list-style-type: none"> • Apply techniques and knowledge gained in first semester to address multi-disciplinary ecological issues in aquatic environments and ecology • Select and utilise sampling procedures and equipment appropriate to specific aquatic environments • Undertake integrated field-based sampling projects with cognisance and evaluation of the risks of working in hazardous environments • Synthesise their understanding of the major processes that shape ecology in aquatic environments, and apply integrated solutions to ecological issues 	
Class/Session Outcomes : Upon completion of this session, you should be able to: (Share with students e.g. Write on board /slide/ project image at beginning of lecture for students)	
The learning outcomes for the flipped classroom were: <ul style="list-style-type: none"> • To explore the principal abiotic factors impacting lake biota • To apply recent knowledge of nutrient cycles and internal loading mechanisms to lakes • To recognise the key organisms living in the sub-habitats of lakes 	
Lecture notes available on GMIT VLE (Moodle)	

Select & Prioritise Your Content:

For the session, decide what material is used in class and what material the students should study independently and/or online. To do this, think about the material and its relative importance and prioritise and list in the appropriate quadrant.

	Support Learning	Independent Learning
Priority (Need to know)	<p>1</p> <ul style="list-style-type: none"> • Know what the key abiotic factors are in lakes and the processes that govern them • Explain depth of light in lakes • Detail stratification in lakes including temperature, oxygen and nutrients • Apply knowledge gained on nutrient cycles and internal nutrient loadings to lake ecosystems • Describe sub-habitats in lakes and know one resident organisms in each 	<p>2</p> <ul style="list-style-type: none"> • Detailed lecture notes provided through the GMIT VLE (Moodle)
Supplementary Learning (Nice to know)	<p>3</p> <ul style="list-style-type: none"> • Developing combined knowledge and application of light, temperature, dissolved oxygen and nutrients in lake ecosystems • Internal nutrient cycles particularly binding of phosphate and iron • Indicators of sub-habitats health • Linking organisms present with natural sub-habitat environmental conditions 	<p>4</p> <ul style="list-style-type: none"> • Read research article by Sondergaard 2003 • Complete quiz on knowledge gained from reading Sondergaard 2003

Material in quadrants 1 and 3 typically become the focus during classes. Quadrants 2 and 4 represent material students could study themselves and use the VLE/Moodle and online learning objects to support this learning.

Think about how you might incorporate *Technology Enhanced Learning Tools and Blended Online Learning Objects*, that will develop students learning and engagement with the module.



Teacher Activity (what you will do during the class):	Student Activity (what students will do during workshop/lecture):
<p>Answered questions from students based around their reading of the topic</p> <p>Explained processes that they found difficult to deal with</p> <p>Ensured all students had a clear understanding of the topic</p> <p>Broke down statements and used examples of lakes to explain my point</p>	<div data-bbox="699 315 1257 600" data-label="Diagram"> </div> <p>Proposed questions where gaps appeared in their learning and understanding of the topic</p> <p>Peer discussion to ensure they have gained adequate knowledge</p>
<p>Online Student Engagement Tools:</p> <p>All lecture notes, journal article and quiz based on journal article were available on GMIT VLE (Moodle) for 10days before the flipped classroom took place.</p>	
<p>Teacher Reflection:</p> <p>What worked? The flipped classroom worked well. 18% of students had read the lecture notes and of those many came to class with prepared questions. This highlighted prior learning.</p> <p>What did not work? Found it difficult to gauge the level of knowledge in students who did not read the lecture notes but attending the flipped classroom session, did they benefit? Progress bars on Moodle now indicate that 79% of students have viewed the lecture compared to 18% before the flipped classroom. Still unclear if students actually knew how a flipped classroom works.</p> <p>To what extent did you address different domains of learning? The three domains of learning were addressed within the lecture:</p> <ul style="list-style-type: none"> • Cognitive domain (knowledge) – revising previous information and gaining new knowledge of the topic • Affective domain (attitude) - formulating their own thoughts and feelings about the topic. Using knowledge gained to form strong scientific points of view • Psychomotor domain (skills) – practice applying knowledge through discussions in the flipped classroom <p>What would I do differently next time?</p> <ul style="list-style-type: none"> • Use Mentimeter – polling opinions to gather clearer feedback of student knowledge during the flipped classroom • Set out clearer instructions to students on how the flipped classroom operates • Gather feedback on whether students felt this was a good method for teaching lake ecosystems. 	