

## 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	
<b>Module:</b> Ecology of Aquatic Environments: Impacts of Pollution Series	<b>Level / Stage (6,7,8)</b> L7 & L8 <b>Year:</b> Third year
<b>Title of session/ topic:</b> Pesticides	
<b>Mark the type of session:</b>	
<b>Lecture</b> <input checked="" type="checkbox"/>	<b>Tutorial</b> <input type="checkbox"/> <b>Lab</b> <input type="checkbox"/> <b>Studio</b> <input type="checkbox"/> <b>Workshop</b> <input type="checkbox"/>
<b>Module Outcome</b> (What module outcome(s) is the class/session aligned to):	
The module outcomes are to:	
<ul style="list-style-type: none"><li>• Apply techniques and knowledge gained in first semester to address multi-disciplinary ecological issues in aquatic environments and ecology</li><li>• Select and utilise sampling procedures and equipment appropriate to specific aquatic environments</li><li>• Undertake integrated field-based sampling projects with cognisance and evaluation of the risks of working in hazardous environments</li><li>• Synthesise their understanding of the major processes that shape ecology in aquatic environments, and apply integrated solutions to ecological issues</li></ul>	
<b>Class/Session Outcomes</b> : 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 problem based learning (PBL) class were:	
<ul style="list-style-type: none"><li>• To explore the global benefits of using pesticides</li><li>• To examine their impact on the environment</li><li>• To delve deeper using an insecticide case study</li></ul>	
While the learning outcomes for the lecture notes available on GMIT VLE (Moodle):	
<ul style="list-style-type: none"><li>• To introduce pesticides and their global benefits</li><li>• To examine their impact on the environment</li><li>• To delve deeper using an insecticide case study</li></ul>	

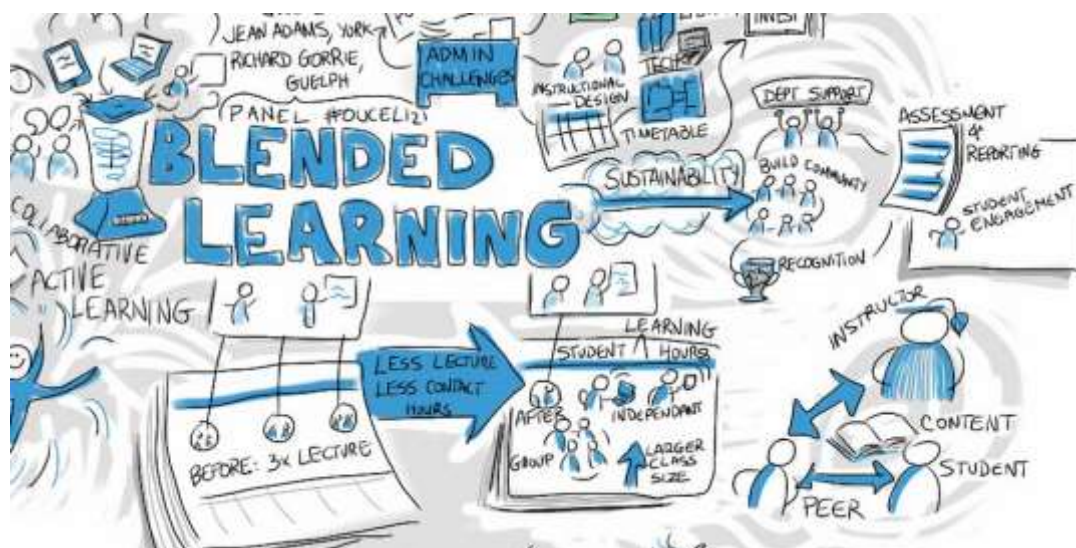
## Select & Prioritise Your Content:

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
<b>Priority (Need to know)</b>	1 <ul style="list-style-type: none"> <li>• Create a list of benefits pesticides afford socially, environmentally and economically</li> <li>• Develop key words that illustrate the major impacts of pesticides on aquatic environments</li> <li>• Consider your personal stance towards pesticides "Do the benefits of using pesticides significantly outweigh the risks?"</li> <li>• Cases study: Neonicotinoid and the Honey Bee</li> </ul>	2 <ul style="list-style-type: none"> <li>• Detailed lecture notes provided through the GMIT VLE (Moodle)</li> <li>• Summary of content developed during peer discussion groups available on GMIT VLE (Moodle)</li> </ul>
<b>Supplementary Learning (Nice to know)</b>	3 <ul style="list-style-type: none"> <li>• Pesticide usage and classification</li> <li>• Greater knowledge of the case study – honey bee colony formation and communication, chemical composition of neonicotinoids and their impacts, current agro-chemical politic power, future of pesticide usage</li> <li>• True causes of concern for honey bee population decline</li> <li>• All Ireland Pollinator Plan</li> </ul>	4 <ul style="list-style-type: none"> <li>• Keep up-to-date on the European neonicotinoid ban</li> <li>• Observe how MS vote</li> <li>• What position does Ireland take</li> <li>• How do the agro-chemical companies respond</li> </ul>

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.



<b>Teacher Activity</b> (what you will do during the class):	<b>Student Activity</b> (what students will do during workshop/lecture):
<p>Introducing the topic and brief background (5 mins)</p> <p>Facilitating peer group discussions (10 mins)</p> <p>Listening and managing peer feedback on peer group discussions (10 mins)</p> <p>Providing summary feedback to students on questions posed in class as we go (5 mins)</p> <p>Introducing new lecture information (10mins)</p> <p>Providing encouragement, support and developing higher level thinking during final discussions on the topic</p> <p>Encouraging global thinking on the topic and the influence of agro-chemical companies in EU political decisions (5 mins)</p>	<div data-bbox="699 309 1257 600" data-label="Diagram"> </div> <p>Listening to the introduction and developing their own thoughts and opinions on the topic</p> <p>Participating in the peer group discussions considering the:</p> <ul style="list-style-type: none"> <li>• Benefits of pesticides socially, economically and environmentally; and</li> <li>• Key environmental impacts</li> </ul> <p>Presenting key findings from their peer groups</p> <p>Advancing their own ideas and concerns of the topic by sharing their opinions with the class</p> <p>Gain new knowledge through the case study:</p> <ul style="list-style-type: none"> <li>• Impacts of neonicotinoids on honey bees</li> <li>• Current EU stance on pesticides</li> <li>• Agro-chemical companies and their political power in EU</li> <li>• Reality for honey bees</li> </ul>
<p><b>Online Student Engagement Tools:</b></p> <p>Used Mentimeter in enhance student engagement during the peer discussions:</p> <ul style="list-style-type: none"> <li>• Used wordle opinions to investigate the key environmental impacts of pesticides on the environment</li> <li>• Used polling opinions to gather personal thoughts on the usage of pesticides “Do you think the benefits of using pesticides significantly outweigh the risk?”</li> </ul> <p>All lecture notes, peer discussion information and journal article available on GMIT VLE (Moodle)</p>	

**Teacher Reflection:**

What worked?

Mentimeter worked really well and the students really enjoyed using the app in particular the wordle and polling opinions. Was very easy to obtain class thoughts and opinions on the topic and led to better feedback on my side.

What did not work?

Everything worked well on the day although some aspects could be improved see below.

To what extent did you address different domains of learning?

The three domains of learning were addressed within the lecture:

- Cognitive domain (knowledge) – revising previously 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 peer group discussions, class feedback and developing personal opinions on the topic

What would I do differently next time?

Improvements:

- Express to students why the learning outcomes are important and how they work
- Make a stronger link between learning outcomes and summative assessments
- Provide a little more information at the beginning about pesticides
- Allow for more detailed discussion around the wordle results