**Lesson Plan Template**

***Note:*** *the candidate must engage in lesson planning and reviews for 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 upload outputs from your four lesson plans on the Moodle/VLE CRN 51389.***

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| **TEACHING SESSION PLAN** | |
| **Module: Mechanical Dissection** | **Level / Stage (6,7,8) Level 7/8 Year: 1** |
| **Title of session/ topic: Creo Model**  **Length of session: 1.5-hour lab + 1.5-hour asynchronous** | |
| **Mark the type of session:**  **Lecture ☐ Tutorial ☐ Lab ☐ Studio ☐ Workshop ☐** | |
| **Module Outcome** (What module outcome(s) is the class/session aligned to)**:**  LO2: Disassemble and reassemble mechanical systems/artefacts to better understand their function.  LO4: Effectively communicate about the function of mechanical components  LO6: Correctly use engineering terminology  LO8: Self-study and research more effectively, and reason more effectively  **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)  Students to have picked component for course work.  Create a 3D Model of this component that contains minimum 6 parts and assemble model for their coursework. | |
| **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.   |  |  |  | | --- | --- | --- | |  | **In Class or in a Live Online Class**  **(Support Learning)** | **Independent Learning**  **(student completes on their own)** | | **Priority**  **(Need to know)** | 1 Chosen component  Proficient in use of Creo (CAD module)  Apply this knowledge to their own chosen component in terms of model assembly | 2 Have dissected their component  Watch 2 videos on padlet  CAD module Year 1 | | **Supplementary**  **Learning (Nice to**  **know)** | 3  Application of these skills in their professional career | 4  Application of this information in other modules such as CAD/Design |   **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/Digital Learning Objects,* that will develop students learning and engagement with the module.**   |  |  |  |  | | --- | --- | --- | --- | | Time/Lesson Stage | Teacher Activity | Student Activity | Resource Used | | 0-5 minutes/Stage 1 | **Welcome class, introduces semester 2 project** | **Type in teams chat box or discuss** | **Teams** | | 5-10 minutes | **Introduce Creo, display example of rendered assembly** | **Log into Mentimeter Watch/listen/type** | **Mentimeter** | | 10- 20 minutes | **Name 5 parts in your component to draw** | **Activity: Use Menti to see most common components to be drawn by students** | **Mentimeter** | | 20 – 25 minutes | **Video- screw design** | **Listen and engage** | **YouTube** | | 25 -30 minutes | **Video - assembly** | **Listen and engage** | **You Tube** | | 30- 40 minutes | **Gear design - introduction** | **Listen and engage** | **Youtube** | | 40 - 50 minutes | **Reflection and planning for next 2 weeks** | **Watch/Listen/Discuss** | **Mentimeter** | | 50 - 60 minutes | **Students upload images of components to Padlet to show they have started their projects** | **Upload and discuss** | **Padlet** | | 60 - 90 minutes | **Checklist and Question time** | **Students stay on if they have any issues getting project started** | **Teams** | | |

**Teacher Reflection:**

What worked well?

I believe using an interactive presentation tool like Mentimeter worked well. This class is usually a practical laboratory class so although we are in currently in an online setting, Mentimeter encourages student interaction in a different way. The checklist also worked really well. Students liked being able to check off the project deadlines as they went along.

What did not work well?

Trying to engage the students prior to class in flipped setting was difficult. Students were supposed to have chosen components to draw for the project, but there were a few students who were not prepared for class.

To what extent did you address different domains of learning?

Domain 1 The Self: I addressed my professional and personal values by reflecting after this class. Prior to the class, I looked back on the previous time I gave this lecture in order to make adjustments and improve it for an online setting.

Domain 2 Professional Identity, Values and Development in Teaching and Learning: As part of the T&L Certificate I am much more involved in critical reflection, recognising that that my identity has shifted this year from a more research and engineering focus to a more educational focus. I also feel the shift to online learning has encourage more reflection in to how I put a class together and to increase engagement.

Domain 3 Professional Communication and Dialogue: I feel that I used excellent, clear and coherent communication skills during the class. I used Mentimeter and Padlet to create an interactive learning environment. This was evident as the group interacted with the TEL tools and the feedback questions.

Domain 4 Professional Knowledge and Skills: I remained current in terms of their professional/disciplinary knowledge by discussing what relevance this activity could play in their future careers, which made this class much more interesting.

Domain 5 Personal and Professional Digital Capacity: this module is taught online when it is usually a face to face laboratory environment, so it is important to recognise the potential of technology for learning impact. Using the Mentimeter and Padlet I was able to simulate a similar experience for students to interact with the content and monitor their project progression.

What would I do differently next time?

Next time I will let the students know at the end of semester 1 to have a component picked for the start of semester 2.