

**MODULE DES3100: CAD MODELLING STUDIO (COMPUTER-AIDED DESIGN)****Level:** Advanced**Theme:** Drafting for Design and Technical Drawing Skills**Prerequisite:** None**Module Description:** Students solve design problems, using advanced computer-aided design (CAD) methods, advanced commands, three-dimensional modelling techniques, rendering, shading and animation techniques.**Module Parameters:** Access to a computer with a CAD software package capable of generating 3-D images, a compatible animation package and a printer and/or plotter.**Note:** It is recommended that students have access to instruction from an individual with formal, specialized training in a design discipline, drafting and CAD.**Supporting Module:** DES2030 CAD Applications**Curriculum and Assessment Standards**

Module Learner Expectations	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> <li>use advanced CAD commands and techniques to design working prototypes of solutions to advanced level design problems</li> </ul>	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> <li>production of still and/or animated images based on advanced level design brief and using teacher-specified software.</li> </ul> <p><i>Assessment Tool</i>  <i>Project Assessment: CAD Modelling Studio (DES3100-1)</i></p> <p><i>Standard</i>  <i>Performance rating of 2 for each criteria</i></p>	80



**MODULE DES3100: CAD MODELLING STUDIO (COMPUTER-AIDED DESIGN (continued))**

Concept	Specific Learner Expectations	Notes
Skills Development (continued)	<p><i>The student should:</i></p> <ul style="list-style-type: none"> <li>• create a three-dimensional model image and/or working drawings on a computer in response to a problem specified in a project brief, and print work generated.</li> </ul>	Students should be made aware that time is an important factor in using CAD and that they should become faster and more efficient with each project.
Applied Problem Solving	<ul style="list-style-type: none"> <li>• apply the personal computer and specified CAD software to resolve problems as outlined in project briefs.</li> </ul>	Students should have had previous experience in CAD and feel confident in using the chosen software independently in this module. They should share CAD techniques, tips and hints to their advantage in the process of solving problems. By allowing sharing to take place, teachers and students will learn and improve their CAD techniques.
Presentation, Design Journal and Portfolio	<ul style="list-style-type: none"> <li>• see Specific Learner Expectations for 2-D Design Studio 1</li> <li>• maintain and update a portfolio as described in 2-D Design Studio 1. Additions from this module would include all project related material (e.g., sketches, notes, a computer disk containing images produced through CAD and three-dimensional modelling software, hard copies of these images), the design journal, and appropriate supplementary material.</li> </ul>	As with the other CAD modules, students might produce portfolio of their work on a computer disk and support this with selected still images (printed or plotted) and/or a video tape of selected images.

