

MODULE DES2030: CAD APPLICATIONS (COMPUTER-AIDED DESIGN)**Level:** Intermediate**Theme:** Drafting for Design and Technical Drawing Skills**Prerequisite:** None**Module Description:** Students apply their previous learnings, and add knowledge, skills and techniques associated with computer-aided design (CAD) to the context of new design-related tasks.**Module Parameters:** Access to a computer with a computer-aided design (CAD) software package, a printer and/or plotter, and basic sketching and drawing tools and equipment.**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 Modules:** DES1050 CAD Fundamentals**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"> use CAD software to produce and print/plot intermediate level multiview and/or pictorial drawings and/or surface developments select, organize and present design projects | <p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> production of a multiview and/or pictorial drawing and/or surface development using teacher-specified CAD software. <p><i>Assessment Tool</i> <i>Project Assessment: CAD Applications (DES2030-1)</i></p> <p><i>Standard</i> <i>Performance rating of 1 for each criteria</i></p> | 80 |
| | <ul style="list-style-type: none"> maintenance and presentation of a module-based design portfolio and a design journal. Emphasis will be placed on the accuracy of application of the CAD software to the drawing assignment, and the student's discourse regarding the process(es), tools and functions used in producing his or her drawing. <p><i>Assessment Tool</i> <i>Presentations/Reports: Drafting for Design and Technical Drawing Skills (Intermediate) (DESPRE-2B)</i></p> <p><i>Standard</i> <i>Performance rating of 2 for each criteria</i></p> | 20 |

MODULE DES2030: CAD APPLICATIONS (COMPUTER-AIDED DESIGN) (continued)

| Module Learner Expectations | Assessment Criteria and Conditions | Suggested Emphasis |
|---|--|------------------------------|
| <p><i>The student will:</i></p> <ul style="list-style-type: none"> demonstrate basic competencies. | <p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> observations of individual effort and interpersonal interaction during the learning process. <p><i>Assessment Tool</i> <i>Basic Competencies Reference Guide and any assessment tools noted above</i></p> | <p>Integrated throughout</p> |

| Concept | Specific Learner Expectations | Notes |
|--|---|---|
| Skills Development | <p><i>The student should:</i></p> <ul style="list-style-type: none"> identify and demonstrate commonly used tools, methods and functions (see CAD Fundamentals) without teacher direction and assistance read and interpret pictorial and other types of sketches for pertinent information use CAD skills to produce layered fully dimensioned multiview drawings and pictorial drawings and/or surface developments print or plot drawings. | <p>Students completing this module should be fully versed in basic CAD use.</p> <p>Teachers may provide students with experience on other computer software that links to and/or supports CAD.</p> |
| Applied Problem Solving | <ul style="list-style-type: none"> select and use CAD tools, methods and functions to produce layered multiview drawings and pictorial drawings and/or surface developments based on pictorial sketches or real three-dimensional objects demonstrate the use of layers on at least one drawing. | <p>As with CAD Fundamentals, applied problem solving in this module centres on the student's ability to select appropriate tools, methods and functions for achieving specific tasks.</p> |
| Presentation, Design Journal and Portfolio | <ul style="list-style-type: none"> print/plot drawings and include them in a portfolio explain drawings as required (e.g., technique/ application used, purpose of element in the drawing, terminology). | <p>A critique in this module may emphasize sharing information about CAD rather than solutions to design problems. Specific project activities should concentrate on skill development with a specific CAD package.</p> |