

## MODULE DES3040: 3-D DESIGN STUDIO 1

**Level:** Advanced

**Theme:** Design Skills, Processes and Applications

**Prerequisite:** None

**Module Description:** Students deal with such aspects as shaping, massing, proportion, scale, contrast, colour, texture and finish within the context of complex three-dimensional design projects.

**Module Parameters:** Sketching, drawing and modelling tools and equipment and access to a computer. Specialized facilities or equipment depend on the approach taken to 3-D model development and mass production.

**Note:** It is recommended that students have access to instruction from an individual with formal, specialized training in product or industrial design and production.

**Supporting Module:** DES2020 3-D Design Applications

### Curriculum and Assessment Standards

Module Learner Expectations	Assessment Criteria and Conditions	Suggested Emphasis
<i>The student will:</i> <ul style="list-style-type: none"><li>produce advanced level designed solutions for three-dimensional design problems</li></ul>	<i>Assessment of student achievement should be based on:</i> <ul style="list-style-type: none"><li>resolution of a teacher-approved, student-specified advanced level three-dimensional design brief.</li></ul> <i>Assessment Tool</i> <i>Project Assessment: Form, Composition and Aesthetics (DESPRJ-3A)</i> <i>Standard</i> <i>Performance rating of 2 for each criteria</i>	30
	<ul style="list-style-type: none"><li>use elements, principles, and considerations common to three-dimensional compositions</li></ul>	<ul style="list-style-type: none"><li>selection and effective use of elements and principles of design in project work.</li></ul> <i>Assessment Tool</i> <i>Authorized resources for explanation and examples of elements and principle of design</i> <i>Project Assessment: Form, Composition and Aesthetics (DESPRJ-3A)</i> <i>Standard</i> <i>Performance rating of 2 for each criteria</i>

**MODULE DES3040: 3-D DESIGN STUDIO 1** (continued)

Module Learner Expectations	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> <li>• use various materials, and the required processes to shape and join such materials, and to create desired forms</li> <li>• demonstrate familiarity with symbolic and cultural connotations of design, and make aesthetic judgments about design solutions generated</li> <li>• select, organize and present design projects</li> </ul>	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> <li>• selection and effective use of materials and associated processes in project work.</li> </ul> <p><i>Assessment Tool</i>  <i>Authorized resources for examples of materials, and processes used to shape and join them</i>  <i>Project Assessment: Form, Composition and Esthetics (DESPRJ–3A)</i></p> <p><i>Standard</i>  <i>Performance rating of 2 for each criteria</i></p>	10
	<ul style="list-style-type: none"> <li>• justification of judgements made during designing with respect to aesthetics, symbolism and culture, brought forth within the presentation/critique.</li> </ul> <p><i>Assessment Tool</i>  <i>Presentations/Reports Form, Composition, and Aesthetics (Advanced) (DESPRE–3A)</i></p> <p><i>Standard</i>  <i>Performance rating of 2 for each criteria</i></p>	20
	<ul style="list-style-type: none"> <li>• maintenance and presentation of a module-based design portfolio and a design journal. Emphasis during the presentation/critique of the module-based portfolio with the teacher and/or peers will be placed on the degree of resolution of the design brief, and the student’s discourse regarding:               <ul style="list-style-type: none"> <li>– the form, composition and aesthetic quality of the product</li> <li>– the judgements made during the designing process</li> <li>– why these were made</li> <li>– the effect they had in shaping the final result.</li> </ul> </li> </ul> <p><i>Assessment Tool</i>  <i>Presentations/Reports Form, Composition, and Aesthetics (Advanced) (DESPRE–3A)</i></p> <p><i>Standard</i>  <i>Performance rating of 3 for each criteria</i></p>	20

**MODULE DES3040: 3-D DESIGN STUDIO 1** (continued)

Module Learner Expectations	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> <li>demonstrate basic competencies.</li> </ul>	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> <li>observations of individual effort and interpersonal exploration during the learning process.</li> </ul> <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
<p>Skills Development</p>	<p><i>The student should:</i></p> <ul style="list-style-type: none"> <li>describe through project work the relationship between the technical/analytical requirements of a project (function) and the more subjective/intuitive judgements that effect project aesthetics (form)</li> <li>explain how this understanding has shaped both the designing process and the design solution.</li> </ul>	<p>Designs must be both functional and aesthetically pleasing. Understanding this interrelationship will help students design solutions that work and are at the same time elegant. It will also help them select processes and materials that are best suited to their designed solution.</p>
<p>Elements and Principles</p>	<ul style="list-style-type: none"> <li>identify the considerations, decisions, elements and principles of the designing process that contributed to the design solution</li> <li>explain these through verbal and/or written presentation.</li> </ul>	<p>See notes from 2-D Design Studio modules.</p>

**MODULE DES3040: 3-D DESIGN STUDIO 1** (continued)

Concept	Specific Learner Expectations	Notes
<p>Applied Problem Solving</p>	<p><i>The student should:</i></p> <ul style="list-style-type: none"> <li>• analyze one or more three-dimensional design projects; e.g., displays, exhibits, dramatic sets, products, packaging, furniture, lighting, CD players</li> <li>• identify each problem through background research and general familiarization, write a project brief and prepare a plan to complete the project, which would include methodology such as objectives of the project, steps required to achieve the objectives, the proposed deliverables (e.g., drawings and model[s]) and a time schedule (e.g., a simple bar chart)</li> <li>• select and use appropriate materials and tools to explore concepts and to achieve the objectives outlined in the project brief.</li> </ul>	<p>In early stages of a project, the designing process might include sketching in two-dimensions and sketch-modelling in three dimensions to explore possibilities of form and composition in the context of the project brief. Later in the project, CAD drawings could be used to define the design and facilitate construction. Three-dimensional physical models (or in some cases, possibly CAD models) might be used to visualize the final design solution in order to deal more fully with detailing and overall aesthetics.</p> <p>Rendered drawings could be used to explore colour options and combinations. However, design problem solving is rarely a linear process and iterations will often continue into the final stages of the project.</p> <p>See notes from 2-D Design Studio modules.</p>
<p>Presentation, Design Journal and Portfolio</p>	<ul style="list-style-type: none"> <li>• see Specific Learner Expectations for 2-D Design Studio 1</li> <li>• maintain a portfolio of ongoing design activity, which in this module would include samples of items produced and/or photographs or video of items produced.</li> </ul>	<p>See notes from 2-D Design Studio modules.</p>