

MODULE DESCRIPTIONS

Module DES1010: Sketch, Draw & Model

Students are introduced to observational sketching and drawing, and modelling, and to a selection of materials and tools and their uses. Students also develop skills that can be used and enhanced in further design activity.

Module DES1020: The Design Process

Students begin this process-based activity by developing an understanding of the problem through research. They then develop possible solutions, working through them to arrive at a final, appropriate solution.

Module DES1030: 2-D Design Fundamentals

Students develop skills and techniques appropriate to two-dimensional design by engaging in a variety of activities in various contexts. Techniques may include drawing, layout, use of tools and equipment appropriate for two-dimensional design, cutting, joining, measuring and use of notations.

Module DES1040: 3-D Design Fundamentals

Students develop skills and techniques appropriate to three-dimensional design, by engaging in a variety of activities in various contexts. Techniques may include drawing, modelling, use of tools and equipment appropriate to three-dimensional design, cutting, joining, measuring and use of notations.

Module DES1050: CAD Fundamentals (Computer-aided Design)

Students develop basic knowledge and skills in computer-aided design (CAD).

Module DES1060: Drafting/Design Fundamentals

Students develop basic knowledge, skills and techniques to draft appropriate drawings for visualizing and illustrating simple design problems.

Module DES2010: 2-D Design Applications

Students apply the design process and other knowledge, skills and processes learned at the introductory level to two-dimensional design projects. Projects in this module typically deal with communication problems and issues. Students take greater responsibility for managing their learning and learn to work cooperatively with others.

Module DES2020: 3-D Design Applications

Students apply the design process and other knowledge, skills and processes learned at the introductory level to three-dimensional design projects. Projects in this module typically deal with problems and issues related to product design. Students take greater responsibility for managing their learning and learn to work cooperatively with others.

Module DES2030: CAD Applications (Computer-aided Design)

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 DES2040: Drafting/Design Applications

Students learn skills in assembly, section and/or auxiliary drawing. They further develop the knowledge, skills and techniques; e.g., pictorial drawings, multiview drawings, surface developments (flat patterns), and by applying them in the context of more complex design projects.

Module DES2050: Technical Drawing Applications

Students develop accurate multiview drawings from previously produced sketches, and learn the common understandings, conventions and language associated with technical drawing.

Module DES2060: The Evolution of Design

Students develop a historical framework for the importance and relevance of design within a cultural context, by examining past and contemporary examples of designed artifacts.

Module DES3010: 2-D Design Studio 1

Students apply theories, skills and techniques of organization of the visual image onto the two-dimensional format, to resolve complex design problems. Emphasis is placed on exploring form, composition and aesthetics of communication design solutions.

Module DES3020: 2-D Design Studio 2

Students investigate the impact, importance and influence of two-dimensional design within a cultural context and the social responsibility of the designer, and apply this information when resolving complex communication design problems.

Module DES3030: 2-D Design Studio 3

Students explore the production processes of two-dimensional design and the role of the designer as an organizer of appropriate materials, processes and systems. This understanding is applied in the resolution of complex two-dimensional design problems.

Module DES3040: 3-D Design Studio 1

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 DES3050: 3-D Design Studio 2

Students are introduced to human factors, principles and considerations; e.g., ergonomics, semantics and semiotics.

Module DES3060: 3-D Design Studio 3

Students expand their knowledge of materials, technologies and production/processes employed to shape and join materials and assemble products. Students will become familiar with principles of manufacturing, and materials, technologies and processes appropriate to manufacturing a product in various production quantities.

Module DES3070: Living Environment Studio 1

Students learn to develop appropriate architectural, environmental or interior design solutions for specific human needs. Students also learn to use design methodology and teamwork in the development of such solutions.

Module DES3080: Living Environment Studio 2

Students learn to consider form and space when developing specific architectural, environmental or interior design solutions specific to human and/or environmental needs. They assess solutions on the basis of functional and aesthetic considerations and appropriateness within the human environment. Materials and production processes may be considered at this stage though not necessarily resolved. When designing at the micro level, students consider the ergonomic aspects of design.

Module DES3090: Living Environment Studio 3

Students develop design solutions specific to architectural, environmental or interior design and learn about using and/or specifying appropriate materials and production processes.

Module DES3100: CAD Modelling Studio (Computer-aided Design)

Students solve design problems, using advanced computer-aided design (CAD) methods, advanced commands, three-dimensional modelling techniques, rendering, shading and animation techniques.

Module DES3110: Drafting/Design Studio 1

Students concentrate on various drawing and drafting types to illustrate design concepts and solutions, including freehand drawings, illustrative views, isometric drawings, perspective drawings, axiometric drawings, surface developments (flat pattern). This is a skill-building module with the emphasis on line drawing.

Module DES3120: Drafting/Design Studio 2

Students develop complex explanatory drawings from base (line) drawings, that may include exploded views, cut-aways, revolutions, sectional, and shadow and reflection construction. This is a skill-building module with the emphasis on explanatory line drawings.

Module DES3130: Drafting/Design Studio 3

Students apply rendering techniques to line drawings (base or developed), concentrating on light, colour and various media; e.g., coloured pencils, marker pens, water colours, computer rendered. Presentation techniques are used to compose high quality illustrations to communicate design solution, such as rendered drawings, context backgrounds, collage and montage techniques, titles, text.

Module DES3140: Technical Drawing Studio 1

Students produce sections, elevations and auxiliary drawings, and build upon their learnings from the intermediate level. Students may use previously produced sketches and multiview drawings as a basis for further work.

Module DES3150: Technical Drawing Studio 2

Students identify and specify details of various product components with a focus on representations of developments; e.g., sheet metal flashing, clothing patterns, and on intersections; e.g., the intersection of two heating ducts.

Module DES3160: Technical Drawing Studio 3

Students diagram and illustrate the design specifications for a product, structure and/or process as a basis for fabrication, manufacturing and/or construction. They complete a set of working drawings for a self-generated or teacher-specified designed item.

Module DES3170: Visualizing the Future

Students explore new possibilities in design, including the role of the designer and the challenges that are faced by the designers.

Module DES3180: The Design Profession

Students develop an understanding of the business aspect of the design profession, including educational qualifications, opportunities in design and some of the issues and challenges designers face. Ethical, legal and social issues may also be explored.

Module DES3190: Portfolio Presentation

Students prepare a presentation portfolio for a specific purpose, such as entry into the workplace or a post-secondary institution.