

Design 11

Learning Outcomes

1. Students will be expected to apply the elements and principles of design to a range of problems in a variety of contexts.
2. Students will use their understanding of issues, principles, processes, and technology to solve design problems in the built environment.
3. Students will be expected to use a variety of forms to design communications for a range of purposes.
4. Students will use their understanding of issues, principles, processes, and technology to design products used in their environments.
5. Students will be expected, independently or as members of a design team, to conduct an investigation or create a product, communication, or environment.

Specific Curriculum Outcomes

Students will be expected to

Module 1: Design Fundamentals

- 1.1 demonstrate an understanding of the elements and principles of design
- 1.2 render forms through drawing and other ways of representing
- 1.3 demonstrate understanding of the relationship between form and function of objects
- 1.4 apply their understanding of a range of issues, and their cultural/historical contexts, in making design decisions
- 1.5 demonstrate an understanding of applications for a range of materials, treatments, and finishes
- 1.6 apply understanding of the design process in planning and evaluating a design
- 1.7 apply design strategies to plan, communicate, inquire, and make decisions
- 1.8 describe and apply their understanding of the relationship between design and the environment

Module 2: The Built Environment

- 2.1 describe how human requirements affect design
- 2.2 describe how the environment has an impact on design
- 2.3 demonstrate an understanding of the impact of a living environment on human beings
- 2.4 describe how social, cultural, and economic issues have an impact on design
- 2.5 describe the responsibility design has toward the human and natural environment
- 2.6 demonstrate competency in the use of design tools useful in the design of built environments
- 2.7 apply the elements, principles, and processes associated with design in interior, architectural, and/or environmental designs to address human and or environmental needs
- 2.8 organize and present design projects

Module 3: Communications Design

- 3.1 use a variety of communication tools to design and create texts for a range of purposes
- 3.2 identify and interpret the strategies they and others use to create texts for specific purposes
- 3.3 explain designs' power to engage
- 3.4 observe, listen, critique, and subsequently learn from their own ideas and the insights offered by peers

Module 4: Product Design

- 4.1 demonstrate their knowledge of the factors which influence effective product design
- 4.2 demonstrate an understanding of the impact of human form in the design of products (ergonomics)
- 4.3 describe how the design of products may be affected by the environment in which they are to be used including extreme and toxic environments
- 4.4 describe the responsibility designers have toward the human and natural environment
- 4.5 describe a range of economic factors which influence effective product design
- 4.6 demonstrate competency in the use of tools useful in the design of products
- 4.7 apply the elements and principles of design, and processes associated with design, as they apply to product design
- 4.8 identify and use mechanical systems to effectively analyze a product design
- 4.9 select, organize, and present designs for a range of products
- 4.10 select and use appropriate tools and materials

Module 5: Design Project

- 5.1 develop and refine a proposal for an investigation or the development of a product, communication, or environment
- 5.2 identify information needs and locate and evaluate resources
- 5.3 identify and extend, refine, and/or acquire required skills
- 5.4 share research and reflections
- 5.5 make project decisions which demonstrate creativity, innovation, and a willingness to take risks
- 5.6 set deadlines and develop a work plan to manage time and resources
- 5.7 develop a plan for monitoring their progress and judging success and contribute to the criteria used for evaluation
- 5.8 gather, organize, and synthesize information and ideas
- 5.9 present the results of their work
- 5.10 reflect on and assess their own learning and the learning of others