MODULE CON2200: PRODUCT DEVELOPMENT

Level: Intermediate

Theme: Manufacturing Systems (Processes and Applications)

Prerequisite: CON1010 Basic Tools & Materials

Module Description: Students work, individually or as team members, to research, design and build a product suitable for mass production and marketing.

Module Parameters: Access to a materials/construction facility and to instruction from an individual with specialized training in the use of tools and materials.

Supporting Module: CON2190 Manufacturing Systems

Curriculum and Assessment Standards

Module Learner Expectations	Assessment Criteria and Conditions	Suggested Emphasis
The student will:	*Assessment of student achievement should be based on:*	
• list and describe the steps involved in developing a product for manufacturing	• presentation of a group or individually prepared report that list and describes the steps in developing a product for manufacturing, such as: – defining the problem – research possible solutions – creating solutions – determining marketability – determining profit margin	20
• apply designing and planning skills to assist in the development of a prototype	• demonstrate design and planning skills required in the development of a prototype product. *Assessment Tool* *Project Assessment: Building a Prototype, CON2200–1* *Standard* *Performance rating of 2 for each applicable task*	50
• describe the marketing and manufacturing potential of a product	• evaluation of a product prototype to determine whether it meets the desired design, production and marketing criteria. *Assessment Tool* *Illustrative Example, CON2200–2* *Standard* *Performance rating of 2 for each applicable task*	30

MODULE CON2200: PRODUCT DEVELOPMENT (continued)

Module Learner Expectations	Assessment Criteria and Conditions	Suggested Emphasis
The student will: • demonstrate basic competencies.	*Assessment of student achievement should be based on:* • observations of individual effort and interpersonal interaction during the learning process. *Assessment Tool* *Basic Competencies Reference Guide and any assessment tools noted above*	Integrated throughout

Concept	Specific Learner Expectations	Notes
Orientation	*The student should:*	
• Product Life Cycle	• describe the life cycle of a typical product from the time of introduction to its decline • identify reasons for a product being successful; e.g.: – meet a physical and emotional need – marketing practice – pricing – reputation	Note the importance of considering the issues related to product disposal and/or recycling in the initial design stages of a product.
• Idea Generation	• explain how new product ideas are generated • outline how ideas are developed into new products • identify the major steps involved in engineering a new product	Students should be encouraged to create a new product, not simply replicate an existing one.
• Testing	• state the importance of product testing and market surveys.	

COURSE CON2200: PRODUCT DEVELOPMENT (continued)

Concept	Specific Outcomes	Notes
Planning and Management • Prototype Development	*The student should:* • select or design a product for manufacturing • create the necessary detail, assembly and schematic drawings • identify the appropriate materials • create a prototype product • analyze the design: – function – aesthetic appeal – reliability – manufacturability – profitability • create a market survey.	
Implementation	• create a prototype product • test the product • prepare a market survey.	
Assessment • Career Assessment • Career Preparation	• identify career opportunities related to product marketing and research • maintain a record of completed activities within a portfolio.	