

MODULE CON3190: PRODUCTION PLANNING

Level: Advanced

Theme: Manufacturing Systems (Processes and Applications)

Prerequisite: CON2200 Product Development

Module Description: Students plan, individually or as team members, a production system, and create the necessary work cells and floor plan to produce a given product in a safe and efficient manner.

Module Parameters: Access to a building site and/or construction facility and to instruction from an individual with specialized training in production work.

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"> identify the characteristics of an efficient production system analyze a product to determine the necessary production processes and tools create a production flow chart and/or facility layout demonstrate basic competencies. 	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> presentation of a written report that outlines the elements that contribute to the development of an efficient production system analysis of a given product to determine the tools, materials and processes to create a production flow chart and locate the required jigs, fixtures and tools. <p><i>Assessment Tool</i> <i>Presentations/Reports: Planning for Efficiency, CON3190-1</i></p> <p><i>Standard</i> <i>Performance rating of 3 for each applicable task</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>15</p> <p>70</p> <p>15</p> <p>Integrated throughout</p>

MODULE CON3190: PRODUCTION PLANNING (continued)

Concept	Specific Learner Expectations	Notes
<p>Orientation</p> <ul style="list-style-type: none"> • Production Methods • Health and Safety 	<p><i>The student should:</i></p> <ul style="list-style-type: none"> • describe the factors that determine whether a product part or component will be built or purchased • describe the production methods that are used to separate, combine and form materials • describe common methods of material and product handling • identify the conditions that contribute to a efficient production system; e.g.: <ul style="list-style-type: none"> – use of flexible equipment – zero tolerance – multi-skilled work teams – authority delegated to the workers • identify methods to control: <ul style="list-style-type: none"> – inventory – production – quality • list and describe typical safety regulations that govern: <ul style="list-style-type: none"> – space between equipment – type of floor surfaces – amount of light – air quality control. 	<p>It may be more economical to purchase a part than to make it.</p> <p>Consider ways to avoid “bottlenecks” and back-tracking.</p> <p>Discuss the move back to building a complete product using a team approach rather than using mass production techniques.</p>
<p>Planning and Management</p>	<ul style="list-style-type: none"> • break a given product down into its separate parts and identify how each part can be fabricated • show a flow chart for the movement of materials and products • train personnel for specific tasks. 	
<p>Implementation</p>	<ul style="list-style-type: none"> • design and build the necessary jigs, fixtures and templates for a given part and process • organize the required equipment to create a required work cell or shop layout. 	

MODULE CON3190: PRODUCTION PLANNING (continued)

Concept	Specific Learner Expectations	Notes
Assessment <ul style="list-style-type: none"><li data-bbox="207 453 435 485">• Quality Control<li data-bbox="207 537 386 604">• Career Preparation	<i>The student should:</i> <ul style="list-style-type: none"><li data-bbox="488 453 1057 520">• test and improve the production processes if necessary<li data-bbox="488 537 1122 604">• maintain a record of completed activities within a portfolio.	

