Master Course Syllabus Outline

**Department:** Engineering Technology  
**Course Prefix/Number:** MET 4363

**Official Course Title:** Production Planning

Master Syllabus Approved by Department on: __08__/__11__/__04__

I. **Catalog Description:** A study of the principles and theory used in the design and maintenance of production operations and inventory systems. These include forecasting techniques, inventory models, production control models and assembly line balancing. Particular emphasis is on MRP, Just-in-Time, and Synchronous Manufacturing.

II. **Prerequisites:** MATH 1204 and 3 hours of statistics or concurrent enrollment.

III. **Expanded Course Description:** The student will be presented with an understanding of the purpose of production control to the manufacturer. Several basic forecasting techniques (including exponential smoothing) will be presented. Several basic inventory models, including the ABC System, EOQ model, and Lot-Sizing will be covered. A thorough coverage of the MRP system, including how MRP works, aggregate planning, and master scheduling will be accomplished. The theory and basics of the Japanese philosophy of JIT and Synchronous Manufacturing will be presented. A comparison of the advantages of disadvantages of the MRP and JIT philosophies will be presented.

IV. **Knowledge Outcomes:** Students are expected to have knowledge of the importance of the following topics; an appreciation of the importance of utilizing the correct production control philosophy for varying manufacturing situations, a basic understanding of the workings of the basic inventory models, lot-sizing, MRP systems, JIT systems, and Synchronous Manufacturing.

V. Unless otherwise stipulated in this master syllabus by the department, the following items are subject to faculty discretion as described in each faculty member’s individual course outline/syllabus:

a) Course Requirements? (grading/evaluation procedures; class attendance policy; term papers, projects, field assignments; examinations; class participation, etc.)

b) Required Text(s)?

b) Bibliography?

VI. **Academic Honesty:** Cheating, plagiarism (submitting another person’s materials or ideas as one’s own), or doing work for another person who will receive academic credit are all-impermissible. This includes the use of unauthorized books, notebooks, or other sources in order to secure of give help during an examination, the unauthorized copying of examinations, assignments, reports, or term papers, or
the presentation of unacknowledged material as if it were the student’s own work. Disciplinary action may be taken beyond the academic discipline administered by the faculty member who teaches the course in which the cheating took place.

VII. Students With Disabilities Policy: It is the policy of Tarleton State University to comply with the Americans with Disabilities Act (ADA) and other federal, state, and local laws relative to the provision of disability services. Students with disabilities attending Tarleton State University may contact the Office of Disability Services at (254) 968-9478 to request appropriate accommodation. Furthermore, formal accommodation requests cannot be made until the student has been officially admitted to Tarleton State University.

Department Head Signature/Date:

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Signature                      Date