

Master Course Syllabus

Department: Engineering Technology **Course Prefix/Number:** MQL 576

Official Course Title: Automated Manufacturing Systems

Master Syllabus Approved by Department on: 10/27/2005

I. Catalog Description: An analysis of materials flow to design automated manufacturing systems in the manufacturing environment. Preconditions for manufacturing automation in manufacturing, principles for and quality by automated machine tools, NC-technology, adaptive control, FMS, computer communication, simulation, monitoring, maintenance, human factors.

II. Prerequisites:

III. Expanded Course Description: The focus of the course is to provide the student with a basic knowledge of the role of manufacturing automation in providing the manufacturer with a technology competitive edge. It deals with the application of manufacturing automated systems. Focusing on the conditions for manufacturing automation in workshops, principles for and qualities by automated machine tools, and NC-technology, adaptive control, FMS, computer communication, simulation, monitoring, maintenance, human factors. A term project, regarding one of the many topics of the course, is researched and presented to the class.

IV. Knowledge Outcomes: Students are expected to have knowledge of the importance and the basics of the following topics; CAD/CAM, CIM, FMS, DFM, and other concepts and practices of Automated Manufacturing Systems. Depth in a particular topic will be obtained by the student through the term project.

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?

Department Head Signature/Date:

Signature

_____/_____/_____
Date