Engineering and Technology Management

COURSE SYLLABUS

Course Number: E M 555

Course Name: Enterprise Resource Management

Instructor: William J. Gray   **email:** wgray@wsu.edu

Semester Credits: 3   **Prerequisites:** None

Course Description and Objectives:

This course addresses the managerial and operational challenges of advanced service and manufacturing systems characterized by tight integration, short cycle times and variety and scope of product. Specifically, computerized advanced manufacturing systems, JIT, synchronous manufacturing and customer integrated service systems are discussed. The systems are reviewed as competitive strategies along with the accompanying organizational implications. The course culminates with an application of a computerized case study analysis for the class project.

- Understand the principles of Engineering Resource Planning (ERP)
- Understand the types and benefits of business processes that management modules typically include in ERP solutions
- Understand the use of TOC in ERP
- Understand the business factors that drive ERP implementations
- Explore ERP solutions for midsized businesses
- Learn how to plan an ERP solution and how to make the solution work for a typical business
- Learn to employ an ERP tool to manage a small company in a fluctuating market with unreliable suppliers and with an enterprise integrated information system.

Course Topics:

- Introduction to Enterprise Systems for Management
- Systems Integration
- Enterprise Systems Architecture
- Development Life Cycle
- Implementation Strategies
- Software and Vendor Selection
- Operations and Post-Implementation
- Program and Project Management
- Organizational Change and Business Process Reengineering
- Global, Ethics, and Security Management
- Supply Chain Management
- Customer Relationship Management
- ERP-MICSS Case Study

Grading:

Mid-Term Exam: 15%, Projects: 50%, Participation: 10%, Final Exam: 15%, Homework: 10%