



# Engineering and Technology Management

## COURSE SYLLABUS

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**Course Number:** E M 567

**Course Name:** System Supportability and Logistics Management

**Instructor:** William J. Gray

**email:** wgray@wsu.edu

**Semester Credits:** 3

**Prerequisites:** None

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### Course Description and Objectives:

The theory and practice of logistics engineering and management includes systems which are composed of hardware, software, people, processes and other elements which are necessarily interdisciplinary and complex. The emphasis in this class is on the role of logistics engineering and management in a system life cycle, from concept to retirement, the design of logistics subsystems and logistics oriented systems and the logistics management functions of planning, organizing, directing and controlling. Also included are the application techniques and best practices associated with topics in the logistics domain such as reliability, maintainability, supportability and sustainability.

- Possess a general knowledge of ILS management to include terminology, techniques, conventions/best practices and standards
- Understand how the elements and concepts of Integrated Logistics Support (ILS) are applied to military and commercial systems with emphasis on systems management
- Understand logistics and maintenance support in the system life cycle—system requirements, requirements allocation, design participation, and design reviews
- Understand the measures of logistics and supportability—supply chain, purchasing and material flow, transportation and packaging, warehousing and distribution, maintenance organization, spares/repair parts, test and support equipment, maintenance facilities, computer resources, and technical data factors
- Be able to integrate ILS activities into the program technical disciplines in a general systems engineering effort
- Possess the ability to plan, organize, direct, and control the ILS program effort
- Understand Supportability analysis
- Understand supportability test and evaluation

### Course Topics:

- Introduction to Logistics
- Reliability, Maintainability, and Availability Measures
- The Measures of Logistics and System Support
- The System Engineering Process
- Logistics and Supportability Analysis
- Logistics in Design and Development
- Logistics in the Construction/Production Phase
- Logistics in the System Utilization, Sustaining Support, and Retirement Phases
- Design reviews, Configuration Control

### Grading:

Exams: 50% (two 25% each), Team Project: 30%, Homework: 20%