

COURSE SYLLABUS E M 590

Course Name: Leading Design and Innovation

Course Number: E M 590

Semester Credits: 3

Instructor/Contact Information: David Paulus, Ph.D., P.E.

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Office Hours: TBD

Meeting Time: Online, Wednesday 6:15 – 8:30pm Pacific **Prerequisites:** None

Textbook: *Design for Manufacturability*, Anderson, CIM Press, 2010

Course Description and Objectives: “Leading Design and Innovation” covers techniques to identify opportunities for innovation and methods to lead comprehensive product design and development. Key topics include: Design for Manufacturability, Concurrent Engineering, Designing the Product, Designing for Lean and Build-to-order, Standardization, Minimizing Cost by Design, and Design for Quality.

Learning Outcomes: Students will be able to:

- Design for manufacturability
- Improve product development by incorporating lean manufacturing techniques and concurrent engineering
- Minimize cost of designs including standardization
- Implement design for quality techniques