MANUFACTURING SYSTEMS ENGINEERING (MFGSE)

MFGSE 550: Design for Manufacturability I

3 Credits

Introduction to DFM, a review of enabling technologies and the systematic use of quality tools during the DFM process. MFGSE 550 Design for Manufacturability I (3) This course will provide the student with an introduction to the product design process and techniques used in the design process to optimize product design for both overall quality and minimum cost. PRODUCT DESIGN PROCESS Product fit, competitive analysis, benchmarking (2 periods) Concurrent engineering (2 periods) Process standards (2 periods) Value engineering, cost containment methods (2 periods) Project management (3 periods) Product liability, patents, trade secrets (1 period) Design standards (e.g., UL, ASME) (1 period) Process standards (e.g., ISO 9000, QS 9000) (1 period) The topics include: Design for Manufacturability, Design for Assembly Enabling Technologies for DFM and DFA, Quality Tools. Student performance will be evaluated by written reports, quizzes and exams.

Prerequisite: graduate standing