

MANUFACTURING ENGINEERING (MFE)

MFE 300 Selected Topics (1-6 Credits)

Engineering & Comp Sci

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable

MFE 326 Probability and Statistical Methods for Engineers (4 Credits)

Engineering & Comp Sci

Theory of probability, sampling, estimation, hypothesis testing, quality control techniques. Experimental design and analysis.

MFE 380 International Course (1-12 Credits)

Engineering & Comp Sci

Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript.

Repeatable

MFE 400 Selected Topics (1-6 Credits)

Engineering & Comp Sci

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable

MFE 429 System Modeling and Optimization (3 Credits)

Engineering & Comp Sci

Introduction to system modeling and optimization techniques and their applications. Topics include linear programming and its extensions, integer programming, dynamic programming, stochastic modeling, simulation and other system modeling techniques.

Prereq: MAT 397 and MAT 521

MFE 436 Robotics in Manufacturing (3 Credits)

Engineering & Comp Sci

Topics include requirements for robotic application, mechanical considerations, and effectors, sensors, software, applications, and optimization of robotic systems. Laboratory experiments included.

MFE 453 Production Planning and Control (3 Credits)

Engineering & Comp Sci

Problems in designing and controlling manufacturing facilities. Layout design, line balancing, production planning, sequencing, material-requirements planning, group technology, and quality control.

Prereq: MFE 326 and 429

MFE 470 Experience Credit (1-3 Credits)

Engineering & Comp Sci

Participation in a discipline or subject-related experience. Students will be evaluated by written and/or oral report.

Repeatable

MFE 490 Independent Study (1-6 Credits)

Engineering & Comp Sci

Exploration of a problem, or problems, in depth. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor(s) and the department.

Repeatable

MFE 500 Selected Topics (1-6 Credits)

Engineering & Comp Sci

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable

MFE 534 Statistical Quality Control (3 Credits)

Engineering & Comp Sci

Controlling product quality through the control of the manufacturing process and acceptance sampling. Industrial project required.

Prereq: MFE 326

MFE 595 Multidisciplinary Analysis and Design (3 Credits)

Engineering & Comp Sci

Interdisciplinary subjects related to engineering, information technology, networking, AI and HTTP://WWW-based tools. The objective is to use different MAD tools in the product realization process.

Prereq: MEE 571