AUTOMATION MANAGEMENT (AM)

AM 415. Management of Industrial Facilities
Credits: 3
Typically Offered: FALLSPR
This course provides a comprehensive overview of facilities management specifically related to automation and manufacturing facilities. Students will study the theories and principles associated with managing production facilities of all sizes. Major areas analyzed are facilities operations, maintenance, staff management, budgeting, scheduling, managing capital projects, and relationships with contractors and vendors. Students explore current issues related to facilities management and its relationship to various organizational units including human resources, operations, occupational health and safety, labor relations and unions, finance, purchasing and executive management.

AM 441. Ethics in Artificial Intelligence (AI)
Credits: 3
Typically Offered: FALLSPR
The ethics of artificial intelligence is the part of the ethics of technology specific to automation, robotics, augmentation and other forms of artificial intelligence. This course looks at the moral behavior of humans as they design, construct, use and treat artificially intelligent beings; the moral behaviors of artificial moral agents; and assess the ethical dimensions of the potential effects of artificial intelligence for human life. In addition, exploring the search for balance between regulation and innovation as well as the ethical questions arising from AI for individual rights, discrimination and architectures of control, and dissemination of information is included in this course.

AM 467. Quality Assurance - Lean Six Sigma
Credits: 3
Typically Offered: FALLSPR
This course covers the concepts of Lean and Six Sigma and the DMAIC problem solving methodology for manufacturing businesses. Lean Six Sigma is a business and data-driven, disciplined approach to reducing waste and minimizing defects in any type of process. It is a method of integrated management used by organizations to more effectively and efficiently meet the needs of their customers. Included are both statistical and non-statistical techniques used for continuous process improvement such as process definition, process flow diagrams, data collection techniques, measurement techniques, causes of process variation, Pareto diagrams, histograms, cause and effect diagrams, control charts and process capability analysis. Emphasis is placed on strategic thinking, flexibility, teamwork and communication skills.