

EMAN - Engineering Manufacturing

EMAN 501 Principles of Manufacturing: 3 Credits (3 Lec)

(F) Masters of Manufacturing students only. This course provides the underlying fundamentals for a modern manufacturing operation. It introduces concepts and principles across a range of topics required in a modern facility, including materials and manufacturing processes, process design, automation systems, and quality and management processes.

EMAN 515 Industrial Internet of Things: 3 Credits (2 Lec, 1 Lab)

PREREQUISITE: Graduate Standing (Sp) This course will introduce key enabling technologies that make manufacturing operations 'smart'. It introduces some of the key concepts and fundamental knowledge necessary to implement 'smart manufacturing' within factory floors. This includes sensor technology, IoT architecture, and machine learning. Various sensors will be used to collect real-time manufacturing data, which will be streamed and stored via IoT architecture. Common machine learning algorithms will be implemented to realize various smart manufacturing applications

EMAN 525 Manufacturing Management Systems: 3 Credits (2 Lec, 1 Other)

(F) Consent of Instructor required. Manufacturing systems and operations is one of the four pillars of manufacturing engineering. This course provides a comprehensive introduction to manufacturing operational excellence. Lean manufacturing principles are covered so students can drive improvements and provide measurable results within manufacturing companies.

EMAN 591 Special Topics: 1-4 Credits ()

(On demand.) Offered as needed based on student demand. Courses not required in any curriculum for which there is a particular one time need, or given on a trial basis to determine acceptability and demand before requesting a regular course number.