MFET 210C : Lean Manufacturing

A study of the concept of lean production applied to the manufacturing sector. The course covers the fundamental concepts and philosophy of lean used to achieve operational excellence. Lean concepts such as waste reduction, one-piece flow, pull systems, constant continuous improvement, and development of personnel into leaders. Lean concepts/tools covered will include kaizen, value stream mapping, work standardization, kanban, 5S, 5 why, A3 report, just in time (JIT), and takt time.

Credits 3
Lab/Practicum/Clinical Hours 0
Lecture Hours 3
Learning Outcomes

- Describe the difference between Lean manufacturing and traditional mass production systems.
- Identify muda (waste) and its detriments to efficient manufacturing.
- Create and use standards and stability in a lean enterprise.
- Describe and use visual management concepts.
- Identify and implement the 5 S system in a lean environment.
- Understand standardized work in lean production.
- Understand and demonstrate a JIT and kanban system.
- Develop and use a value stream map.
- Develop and use an A3 report.
- Describe the value of the jidoka principle.
- Understand the importance of management involvement in creating a lean culture.
- Describe hoshin planning and its importance in a lean manufacturing system