

	National University of Sciences and Technology	
	Course Description	
Course Title Lean and Agile Manufacturing	Course Code ME 825	Credit Hours 3 – 0

Textbook:

- “Lean and Agile Manufacturing Systems” (2009) by Idris Zehrudin Muhammed

Course Objective:

- The aim of this course is to provide knowledge about lean and agile concepts in manufacturing engineering.

Course Outline:

In pursuit of greater flexibility, elimination of manufacturing wastes, and quick responsiveness, Lean Production System and recently Agile Manufacturing have been developed. Lean Manufacturing is a collection of operational systems focused on productivity improvements with limited resources focusing on minimizing wastes, continuously improving methods, utilizing flexible system to produce variety of defect-free goods. Agile manufacturing, on the other hand, is a comprehensive manufacturing system focused on thriving in unpredictable business environment, focusing on enriching customers, reorganizing production system for greater flexibility, cooperation to enhance responsiveness and increased use of IT. The book reviewed the main principles of lean production system with practical cases in cutlery production. The fundamental principles of agile manufacturing system and then, the comparison of the two systems are also discussed with the aim test the suitability of these systems in Ethiopia context. The comparison shows a difference in viewpoint and perhaps strategy with regard to change, but not in method or approach.

ASSESSMENTS

Description	Percentage Weightage (%)
Assignments	05-10%
Quizzes	10-15%
Mid Semester Exams	30-40%
End Semester Exam	40-50%