# NOVA COLLEGE-WIDE COURSE CONTENT SUMMARY IND 123 – INTRODUCTION TO LEAN MANUFACTURING AND SIX SIGMA (1 CR.)

# **Course Description**

Covers basic Lean and Six Sigma concepts. Examines the importance of Lean and Six Sigma as pertaining to the world of manufacturing. Provides students with the opportunity to demonstrate the impact of Lean and Six Sigma manufacturing environment. Lecture 1 hour, Total 1 hour per week.

# **General Course Purpose**

This course is designed to teach students the concepts of lean and six sigma at an introductory level. Students will learn the importance of Lean and Six Sigma in a precision machining flow cell manufacturing environment. This course will teach students about continuous improvement projects, and waste elimination.

#### **Course Prerequisites/Corequisites**

None

# **Course Objectives**

Upon completing the course, the student will be able to:

- a) Compare and contrast Lean Manufacturing and Six Sigma methodologies
- b) Apply Lean and Six Sigma concepts to a manufacturing process
- c) Apply Lean and Six Sigma concepts to high performance manufacturing
- d) Identify the positive financial and performance benefits that Lean and Six Sigma have in manufacturing environment

# Major Topics to be Included

- a) Lean Manufacturing
- b) Six Sigma methodology
- c) Continuous improvement
- d) Waste elimination
- e) Productivity
- f) Six Sigma Quality Management