

Course Objectives/Course Outline
Spokane Community College

Course Title: Manufacturing Economics

Prefix and Course Number: MACH 233

Course Learning Outcomes:

By the end of this course, a student should be able to:

- Create a complete business plan for a small manufacturing company
- Identify the difference between direct and indirect expenses
- Estimate the cost of manufacturing a part and create a quote
- Implement basic lean manufacturing in a practical project

Course Outline:

I. DEVELOP A SMALL BUSINESS PLAN

- A Description of business
- B Marketing
- C Competition
- D Operating procedures
- E Personnel
- F Business insurance
- G Start-up costs
- H Building lease
- I Tool And Equipment Costs
- J Shop layout

II. PART QUOTATION

- A Develop a Process Plan
- B Estimate Time Required
- C Get Material and Tooling Prices
- D Final Customer Quotation

III. LEAN MANUFACTURING

- A 5S
 - 1 Sort
 - 2 Set in order
 - 3 Shine
 - 4 Standardize
 - 5 Sustain
- B Single Minute Exchange of Dies
- C Value Stream Mapping
- D Kanban (pull systems)
- E Poka-yoke (error-proofing)
- F Total Productive Maintenance
- G Manufacturing Work Cells

