

The University of British Columbia
Faculty of Applied Science
Department of Mechanical Engineering

MECH 392 – “Manufacturing Processes”

2 Credits / [2-0-0]

OBJECTIVES: This course covers the introduction of a wide variety of industrial processes that transform materials into discrete parts. The lectures focus on the basic principles of these processes and their relative advantages and limitations. Students will develop a solid understanding on the fundamentals of discrete part manufacturing through lectures, assignments, and a term project.

PREREQUISITE: Successful completion of the Mech 2 program.

TOPICS:

1. Introduction to Manufacturing
2. Metal Casting
3. Molding of Plastics
4. Powder Metallurgy
5. Metal Forming
6. Sheet Metalworking
7. Metal Cutting Basics

LECTURES: 2 lecture hours per week: Mondays, 2:00-3:00 pm, Swing 222; Wednesdays, 2:00-3:00 pm, MacLeod 228

TEXT: Groover, M. P., *Fundamentals of Modern Manufacturing: Materials, Processes, and Systems*, 5th Edition, Wiley, 2013

EVALUATION: The course grade will be determined according to the following:

Assignments	10%
Term Project	15%
Quiz (closed book)	15%
Final Examination (closed book)	60%

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NOTE: The items listed above are subject to adjustments and changes as needed.