

# Mechanical & Industrial Engineering Course and Option Talk - Manufacturing

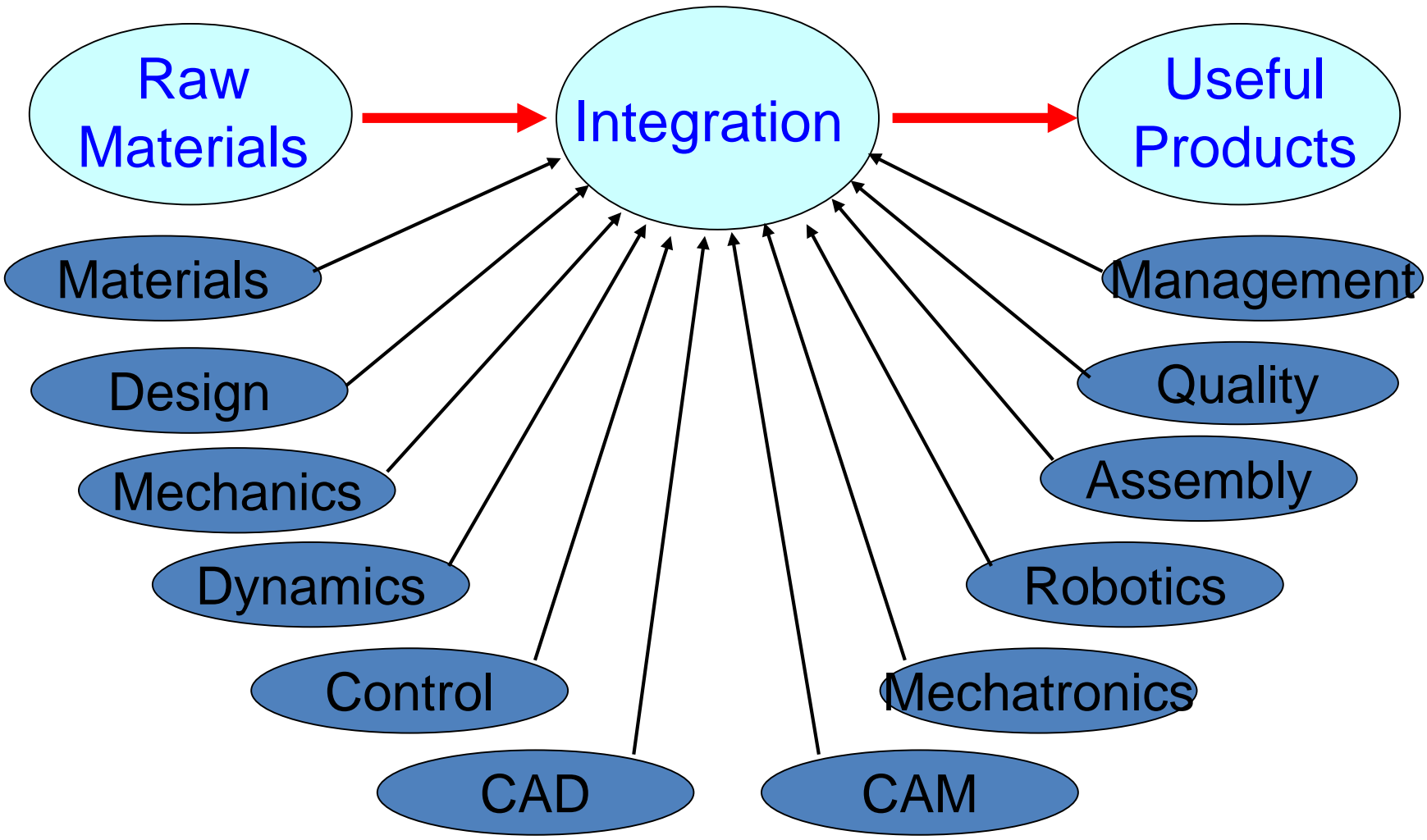


# Manufacturing, Mechanics and Design

- Design of virtually every product
- Create manufacturing processes and equipment
- Biomechanics as related to medicine and dentistry
- Many fields of graduate research

# Manufacturing

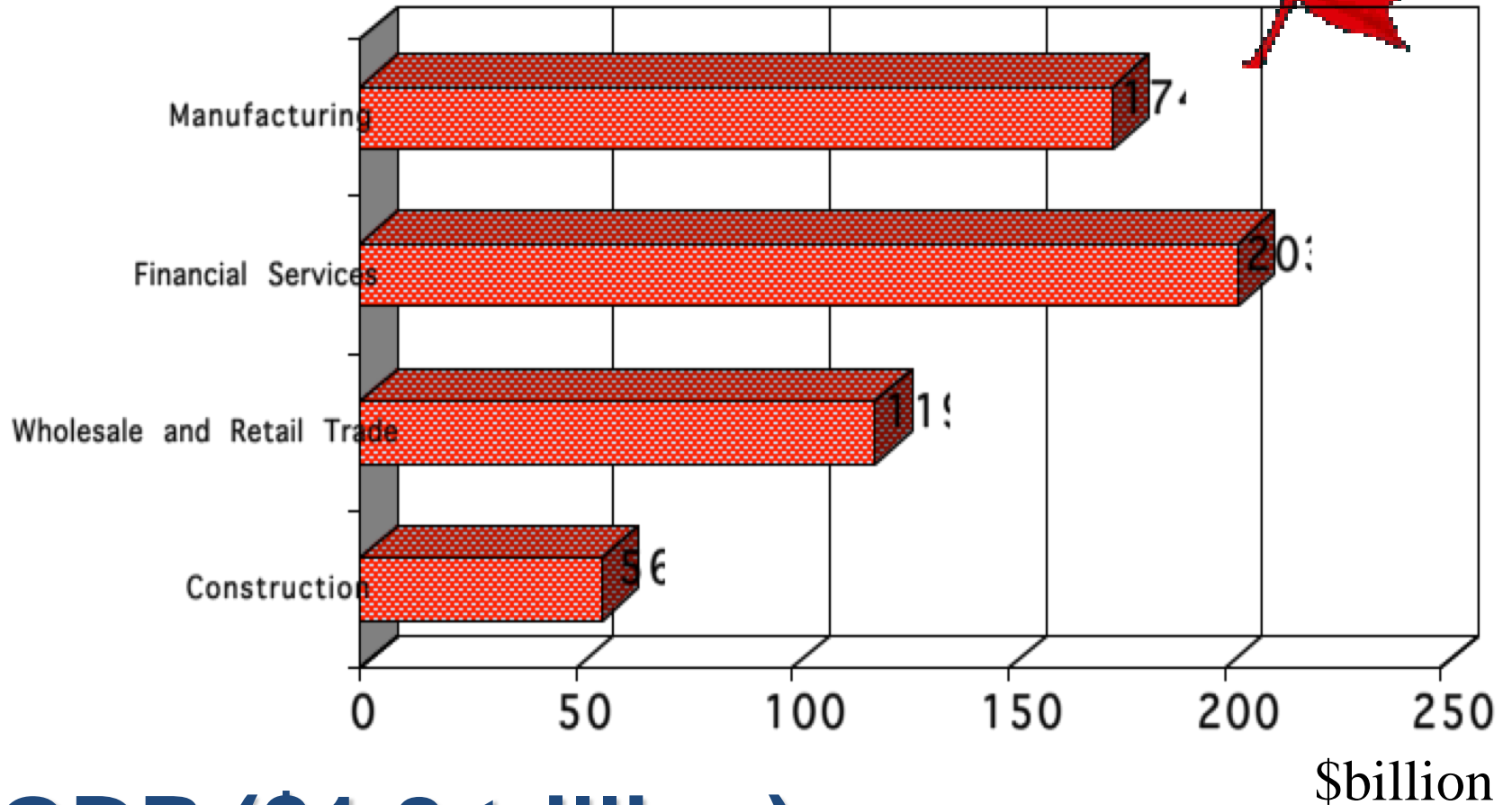
- What is Manufacturing?
  - The transformation of materials and information (technology) into useful products for human beings
- Manufacturing Fields
  - Fundamental Technology
  - Automation
  - Manufacturing Management (Logistics)



**Fundamental**      **Automation**      **Management**

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# Canada's Economy



**GDP (\$1.8 trillion)**

# 3<sup>rd</sup> Year Curriculum Overview

## FALL

- MIE301: Kinematics and Dynamics of Machines
- MIE312: Fluid Mechanics I
- MIE342: Circuits with Applications to Mechanical Engineering Systems
- MIE258: Engineering Economics and Accounting
- Natural science requirement

## WINTER

- MIE315: Design for the Environment
- MIE313: Heat and Mass Transfer
- MIE334: Numerical Methods I
- Two stream option courses

# 4<sup>th</sup> Year Curriculum Overview

## FALL

- MIE491: Capstone Design
- Two stream option courses
- One Technical Elective
- Other: HSS or CS Elective

## WINTER

- MIE491: Capstone Design
- MIE519: Advanced Manufacturing
- Three Technical Elective courses
- Other: HSS or CS Elective

# Career Opportunities

**Employment opportunities exist over a wide range of International and Canadian industry:**

- Automotive
- Microelectronics
- Aviation
- Robotics
- Small to Medium Business

## **For example:**

Bombardier, Celestica, General Electric of Canada, General Motors of Canada, Honda of Canada Manufacturing, Motorola Canada, Northern Telecom, Procter and Gamble Canada, Toyota Canada





# Manufacturing



*Good Luck*