A. Basic Information

Course Title: Theory of metal cutting  
Course Code: MDP321  
Lecture: 4  
Tutorial: 3  
Total: 7

Program on which the course is given: B.Sc. Mechanical Engineering (Productions)  
Major or minor element of program: Major  
Department offering the program: Mechanical Engineering department  
Department offering the course: Mechanical Engineering department  
Academic year / level: Third year / Second Semester  
Date of specifications approval: 10/5/2006

B. Professional Information

1. Overall aims of course
   By the end of the course the students will be able to:
   Understanding the principles of metal cutting

2. Intended Learning outcomes of Course (ILOs)

   a. Knowledge and Understanding:
      a.2) Basics of information and communication technology (ICT).  
      a.5) Methodologies of solving engineering problems, data collection interpretation.  
      a.7) Business and management principles relevant to engineering.

   b. Intellectual Skills
      b.1) Select appropriate solutions for engineering problems based on analytical thinking.  
      b.5) Assess and evaluate the characteristics and performance of components, systems and processes.  
      b.8) Select and appraise appropriate ICT tools to a variety of engineering problems.
c. Professional and Practical Skills
   c.2) Professionally merge the engineering knowledge, understanding, and feedback to improve design, product and/or services.
   c.5) Use computational facilities and techniques measuring instruments workshops and laboratories equipment to design experiments collect analyze and interpret results.

d. General and Transferable Skills
   d.1) Collaborate effectively within multidisciplinary team.
   d.5) Lead and motivate individuals.

3. Contents

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<tr>
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<td>Case study</td>
<td>Oral exam</td>
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4. **Teaching and Learning Methods**
   - ✔ Lectures
   - ___ Practical training / laboratory
   - ✔ Seminar / workshop
   - ___ Class activity
   - ___ Case study
   - ✔ ___ Assignments / homework
   
Other: _______________________________________

5. **Student Assessment Methods**
   - ✔ Assignments to assess knowledge and intellectual skills.
   - ✔ Quiz to assess knowledge, intellectual and professional skills.
   - ✔ Mid-term exam to assess knowledge, intellectual, professional and general skills.
   - ✔ Oral exam to assess knowledge and intellectual skills.
   - ✔ Final exam to assess knowledge, intellectual, professional and general skills.
   
Other: __________to assess _____________________________.

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3/5
6. Assessment schedule
   Assessment 1 Assignemnts on weeks 1, 2, 4, 5, 7, 9, 10, and 13
   Assessment 2 Quizzes on weeks 3, 6 and 12
   Assessment 3 Mid-term exam on week 8
   Assessment 4 Oral Exam on week 14
   Assessment 5 Final exam on week 15

7. Weighting of Assessments
<table>
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8. List of References

8.1 Course Notes
   • Course notes prepared by the instructor

8.2 Essential Books (Text Books)

8.3 Recommended Books
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   ................................................................. .................................................................
   ................................................................. .................................................................
8.4 Periodicals Web sites, etc

www.google.coim/metal_cutting

9. Facilities Required for Teaching and learning
Lecture room equipped with overhead projector and data show

Course coordinator: Prof. Dr. Sameh Shawky Habib
Course instructor: Head of department: Prof. Dr. Maher Higazy

Date: 12 / 12 / 2011