A. Basic Information

Course Title: Computer Applications in design & manufacture
Code: MDP313
Lecture: 2
Tutorial: 2
Practical: -
Total: 4

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 / First 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:
   Using computer package for design and manufacture of any product

2. Intended Learning outcomes of Course (ILOs)

   a. Knowledge and Understanding:
      a.1) Concepts and theories of mathematics and sciences, appropriate to the discipline.
      a.3) Characteristics of engineering materials related to discipline.
      a.4) Principles of design including elements design, process and/or a system related to specific disciplines.

   b. Intellectual Skills
      b.2) 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.7) Solve engineering problems, often on the basis of limited and possibly contradicting information.

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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4. **Teaching and Learning Methods**

- [X] Lectures
- [ ] Practical training / laboratory
- [X] Seminar / workshop
- [ ] Class activity
- [ ] Case study
- [X] Assignments / homework

Other: ___________________________

5. **Student Assessment Methods**

- [X] Assignments to assess ____________________________.
- [X] Quiz to assess ________________________________.
- [X] Mid-term exam to assess ____________________________.
- [X] Oral exam to assess ________________________________.
- [X] Final exam to assess ________________________________.

Other: __________to assess ______________________________.
6. Assessment schedule
   Assessment 1 on weeks
   Assessment 2 Quizzes on weeks 3 and 6
   Assessment 3 Mid-term exam on week 8
   Assessment 4 Oral Exam on week 13 and 14
   Assessment 5 Final exam on week 15

7. Weighting of Assessments
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<td>Mid-Term Examination</td>
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<tr>
<td>Final-Term Examination</td>
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<tr>
<td>Oral Examination</td>
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<td>Practical Examination</td>
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<tr>
<td>Semester Work</td>
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<td>Other</td>
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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
   ………………………………………………………………………………………………………………..
   ………………………………………………………………………………………………………………..
   ………………………………………………………………………………………………………………..
8.4 Periodicals Web sites, etc

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: Prof. Dr. Maher Higazy
Head of department: Prof. Dr. Maher Higazy

Date: 12 / 12 / 2011