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| Date: | Examination No.: | Version: | Start: |
| **Module Name - Code** | Engineering Mechanics-Statics II – 1101 | | |
| **Module Language:** | English | | |
| **Responsible:** | DR. Salahuddin A. Ahmed | | |
| **Lecture (s):** | DR. Salahuddin A. Ahmed | | |
| **College:** | College of Engineering – Salahaddin University | | |
| **Duration:** | 15 week – 1 semester | | |
| **Course outcomes:** | This course is to introduce the basic principles of engineering mechanics with emphasis on their analysis and application to practical engineering problems. After learning this course, you should have the ability to:   1. Obtain the centroid, center of gravity, and center of pressure. 2. Determine the internal forces in plane trusses and frames. 3. Solve the mechanics problems associated with friction forces. 4. Obtain the moment of inertia of areas and masses. | | |
| **Course Content:** | Basic Concepts:  This chapter provides a historical background and an introduction to many of the fundamental concepts in engineering mechanics.  Equilibrium of Rigid Body  Trusses  Frames  center of gravity, and center of pressure.  moment of inertia of areas  friction  internal forces in beams and frames | | |
| **Literature:** | 1. R.C. Hibbeler, “Engineering Mechanics, Statics”, 12th edition in SI units, 2010.  2. J.L. Meriam, L.G. Kraige, “Engineering Mechanics, Statics”, 6th edition, 2006.  3. Pytel. Kiusalaas. “Engineering Mechanics, Statics”, 2nd edition, in SI units, 2001.  4. F.P. Beer, E.R. Johnston, E.R. Eisenberg, “Vector Mechanics for engineers, Statics”, 8th edition in SI units, 2007.  5. K.L. Kumar, “Engineering Mechanics”, 3rd revised edition, 2006.  6. Dietmar Gross, Werner Hauger, Jorg Schroder, Wolfgang A.Wall, Nimal Rajapakse “Engineering Mechanics, Statics”, 2009.  7. R.K. Bansal, “Engineering Mechanics”, 1st edition, 2009. | | |
| **Type of Teaching:** | 3 hrs in lectures  1 hr exercises. | | |
| **Pre-requisites:** | Engineering mechanics – Statics I | | |
| **Frequency:** | Yearly in spring semester | | |
| **Requirements for credit points:** | For the award of credit points it is necessary to pass the module exam. Written 120 min, quizzes, homework, seminars.  **Student's attendance is required in all classes**. | | |
| **Credit point:** | 5 | | |
| **Grade Distribution:** | There will be a mid-term exam on December, class room activities, quizzes, home works and final course exam on January. The final grade will be calculated according the following criteria:   * Mid-term exam -----------------20 % * Activities --------------------------20 % * Final Exam ---------------------------60 % | | |
| **Work load:** | The workload is 150h. It is the result of 60h attendance and 90h self-studies. | | |