

CE 2017
ENGINEERING MECHANICS: STATICS and MECHANICS of MATERIALS

HOMEWORK ASSIGNMENTS for EXAM #1

Text: STATICS and MECHANICS of MATERIALS, by R.C. Hibbeler, 5th Edition

CHAPTER TWO PROBLEMS: FORCE VECTORS

| Lecture | Section | Topic | Lecture Dates | Homework Problems (from Text) | Homework Due Date |
|---------|---------------|---|---------------|-------------------------------|-------------------|
| 1 | Section 2.1/3 | Vector Addition of Coplanar Forces (Parallelogram Method) | 15 Jan | 9, 10 | 21 Jan |
| 2 | Section 2.4 | Vector Addition of Coplanar Forces (Component Method) | 16 Jan | 33, 34, 35 | 21 Jan |
| 3 | Section 2.5/6 | Cartesian Vectors in Three Dimensions | 17 Jan | 38, 42, 43 | 21 Jan |
| 4 | Section 2.7/8 | Position Vectors/Force Vectors Along a Line | 21 Jan | 62, 65 | 27 Jan |
| 5 | Section 2.9 | Dot Product | 22 Jan | 81, 82 | 27 Jan |

CHAPTER THREE PROBLEMS: FORCE SYSTEM RESULTANTS

| Lecture | Section | Topic | Lecture Dates | Assigned Problems (from Text) | Homework Due Date |
|---------|-------------|---|---------------|-------------------------------|-------------------|
| 6 | Section 3.1 | Moment of a Force - Scalar Formulation | 23 Jan | 11 | 27 Jan |
| 7 | Section 3.2 | Cross Product | 24 Jan | | 27 Jan |
| 8 | Section 3.3 | Moment of a Force: Vector Formulation | 27 Jan | 27, 34 | 6 Feb |
| 9 | Section 3.4 | Principle of Moments | 28 Jan | 6, 7, 9, 10, 38 | 6 Feb |
| 10 | Section 3.5 | Moments about an Axis | 29 Jan | 45, 49 | 6 Feb |
| 11 | Section 3.6 | Moment of a Couple | 30 Jan | 66 | 6 Feb |
| 12 | Section 3.7 | Simplification of a Force and Couple System | 31 Jan | 73, 74 | 6 Feb |
| 13 | Section 3.8 | Further Simplification of a Force and Couple System | 3 Feb | 98, 102 | 6 Feb |
| | | Review for Exam #1 | 4 Feb | | |
| | | Exam #1 | 5/6 Feb | | |