Lesson 1: Introduction – What is Strength of Materials?

Mon 1/23/2017

Lesson Objectives
There are no new Lesson Objectives, today. However, students are advised to begin a thorough review of Statics.

Homework - Do not hand in. Do this on your own. Ordinarily, homeworks are due by 5pm of the next class (e.g., Wednesday by 5pm)

1. TRUE or FALSE (Syllabus Question). A student who attends 100% of the classes will receive a Class Participation score of 100% in this class.
2. TRUE or FALSE (Syllabus Question). A student who misses 20% of the classes may still be able to receive a Class Participation score of 100% in this class.
3. (Statics Review). Determine the Cartesian reaction components $A_x$, $A_y$, $B_x$, and $B_y$ for the machine shown. A and B are pinned supports. D is a pinned connection between AD and DB. An applied couple moment of 60-lb-ft is applied to AD, as shown.

4. (Statics Review) Determine the compressive force $F$ that the wood block exerts on the clamp if a force of 10 lb is applied to the grip of the clamp.

Wednesday Evening Class – Room 117: Mechanical testing of steel, aluminum, concrete, and wood in compression and tension. You do not need to prepare anything, in advance. However, this class will be split into two sessions:

- Session 1: 6:30pm to 7:30pm – one-half of the class (refer to sign-up sheet)
- Session 2: 7:30pm to 8:30pm – one-half of the class (refer to sign-up sheet)