Course Information & Assignment Schedule – May 2024 – CEA Prague ME 270 - BASIC MECHANICS I

School of Mechanical Engineering - Purdue University

HOMEWORK FORMAT

DATE	PROBLEM NUMBER	NAME	

Given: A concise statement (in your own words) of the information given.

Find: A concise statement (in your own words) of the information sought.

Solution: Sketch the system to be studied. USE A STRAIGHT EDGE for drawing lines. Always draw in the UNIT VECTORS for the coordinate systems that you use in your solution.

For kinetics problems, follow the four-step plan:

- 1. Draw FBD's
- Write down the fundamental kinetics equations (Newton/Euler, work/energy, linear impulse/momentum, angular impulse momentum equations)
- 3. Kinematics
- 4. Solve

Do the solution symbolically.

At the end convert all quantities to a consistent set of units and substitute into the equations to obtain the answers.

Check your answers for correctness and feasibility.

Check your vector notation and units. In particular, check that you are not equating vector quantities to scalar quantities. It is important that you demonstrate that you know the difference between scalars and vectors. So pay attention to your notation.

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