ME 302 A1: ENGINEERING MECHANICS II

Instructor: Prof. Kamil L. Ekinci (ekinci@bu.edu)
Graduate TA: Kathryn Regan (kregan@bu.edu)
Class: EPC 205
Lecture: TTh 3:30-5:15 pm
Discussion: F 3:35-4:25 pm

Recommended Textbook:
Williams JH, *Fundamentals of Applied Dynamics*, John Wiley and Sons, Inc., 1996. (Any edition is fine.)

Supplemental Resources:
Handouts and quizzes will be given during class.

Course Topics:
Kinematics of particles and rigid bodies; Direct/Algebraic approach to kinetic analysis (Newtonian); Indirect approach to kinetic analysis (Lagrangian).

Grading:

Quizzes + Project:	10% (quizzes given weekly)
Exam 1:	25% (on 10/14/2021 during class)
Exam 2:	30% (on 11/18/2021 during class)
Final Exam:	35% (comprehensive; date determined by registrar)
In-class participation:	Responses to **cold calls** during class is factored into final grades

Make-up Policy:
If you miss an exam without a valid excuse, you will get a zero. If you have to miss an exam with an excuse, I prefer to give you an oral exam. Since I grade on the curve and no two exams are identical, please understand that taking a written make-up exam will put you at a disadvantage.

Attendance Policy:
You are required to attend every class. Attendance will be taken. You will fail if you miss more than 3 classes without a valid excuse. You must arrive to class on time; you may not arrive late without a valid excuse.

Electronics Policy:
No electronics use allowed, except a scientific calculator.

Assignments:
(1) Homework problems will be assigned and solutions made available on Blackboard usually on Thursdays. **Please check promptly.** The homework problems and lectures will serve as the basis for quizzes to be given the week after homework is assigned.
(2) The project will serve as a platform for students to apply principles learned in class to real-world scenarios. Further information will be given later in the semester.

Collaboration:
Needless to say, you may not collaborate with anyone on quizzes or exams. When in doubt, please ask. Given the circumstances, I will give you detailed instructions on how to do your exams.

COVID-19:
We will follow all university policies. If you have to be absent due to COVID, you must inform me immediately.

ME 302 A1 Syllabus
Fall 2021

WK	DATES	BOOK	TOPIC
1	9/2	PY211	Review of Particle Kinematics
2	9/7 9/9	CH 3	Review of Particle Kinematics Introduction to Rotations
3	9/14 9/16	CH 3	Mechanical Constraints
4	9/21 9/23	CH 4	Mechanics in Rotating Frames
5	9/28 9/30	CH 4	Particle Dynamics
6	10/5 10/7	CH 4	Particle Dynamics
7	10/14	CH 6	**N.B.: No class on 10/12.** **Exam 1 on 10/14**
8	10/19 10/21	CH 5	Rigid Body Dynamics
9	10/26 10/28	CH 5	Rigid Body Dynamics
10	11/2 11/4	CH 5	Generalized Coordinates
11	11/9 11/11	CH 6	Work and State Functions Hamilton's Principle
12	11/16 11/18	CH 6	Lagrangian Dynamics **Exam 2 on 11/18**
13	11/23	CH 6	Lagrangian Dynamics
14	11/30 12/2	CH 8	Oscillations
15	12/7 12/9	CH 8	Oscillations

Note: Syllabus will be updated as the semester goes by. Final will be given on the date determined by registrar.