MECHE 170 - ENGINEERING MECHANICS III (3 UNITS)

(Taken from the UC Berkeley Course Guide (http://guide.berkeley.edu))

COURSE OVERVIEW

SUMMARY

This course builds upon material learned in 104, examining the dynamics of particles and rigid bodies moving in three dimensions. Topics include non-fixed axis rotations of rigid bodies, Euler angles and parameters, kinematics of rigid bodies, and the Newton-Euler equations of motion for rigid bodies. The course material will be illustrated with real-world examples such as gyroscopes, spinning tops, vehicles, and satellites. Applications of the material range from vehicle navigation to celestial mechanics, numerical simulations, and animations.

PREREQUISITES

104 or consent of instructor

Spring only

WORKLOAD

TIME COMMITMENT

3-3 hours of lecture and 0-1 hours of discussion per week.

COLLEGE OF CHEMISTRY PEER SERVICES

Made by Angela Lee, c/o 2019

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advising