

COURSE DETAIL

MULTIBODY DYNAMICS

Country

Ireland

Host Institution

Trinity College Dublin

Program(s)

Trinity College Dublin

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Mechanical Engineering

UCEAP Course Number

107

UCEAP Course Suffix**UCEAP Official Title**

MULTIBODY DYNAMICS

UCEAP Transcript Title

MULTIBODY DYNAMICS

UCEAP Quarter Units

4.00

UCEAP Semester Units

2.70

Course Description

This course addresses kinematics and dynamics, and is focused on applications in biomechanics. It reviews the fundamental matrix algebra required for kinematics and dynamics analysis and computations, introduces three-dimensional kinematics and dynamics, and covers the theory and procedures for modelling systems of rigid bodies connected by kinematic joints. The course also considers applications to human body modeling for gait and impact analysis, vehicle dynamics, and robotics.

Language(s) of Instruction

English

Host Institution Course Number

MEU44B17

Host Institution Course Title

MULTIBODY DYNAMICS

Host Institution Campus

Trinity College Dublin

Host Institution Faculty

Host Institution Degree

Host Institution Department

Enginnering (Mechanical)

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