

# 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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