

# COURSE DETAIL

## ORDINARY DIFFERENTIAL EQUATIONS

**Country**

Ireland

**Host Institution**

Trinity College Dublin

**Program(s)**

Trinity College Dublin

**UCEAP Course Level**

Upper Division

**UCEAP Subject Area(s)**

Mathematics

**UCEAP Course Number**

178

**UCEAP Course Suffix****UCEAP Official Title**

ORDINARY DIFFERENTIAL EQUATIONS

**UCEAP Transcript Title**

ORDINARY DIFF EQUAT

**UCEAP Quarter Units**

4.00

**UCEAP Semester Units**

2.70

## Course Description

Students learn how to apply various standard methods (separation of variables, integrating factors, reduction of order, undetermined coefficients) to solve certain types of differential equations (separable, first-order linear, linear with constant coefficients); give examples of differential equations for which either existence or uniqueness of solutions fails; compute the exponential of a square matrix; and use either linearization or the Lyapunov theorems to check the stability of critical points for a given autonomous system.

## Language(s) of Instruction

English

## Host Institution Course Number

MAU23205

## Host Institution Course Title

ORDINARY DIFFERENTIAL EQUATIONS

## Host Institution Campus

Trinity College Dublin

## Host Institution Faculty

## Host Institution Degree

## Host Institution Department

Mathematics

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