

# COURSE DETAIL

## NONLINEAR ODES WITH APPLICATIONS

**Country**

Australia

**Host Institution**

University of Sydney

**Program(s)**

University of Sydney

**UCEAP Course Level**

Upper Division

**UCEAP Subject Area(s)**

Mathematics

**UCEAP Course Number**

129

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

NONLINEAR ODES WITH APPLICATIONS

**UCEAP Transcript Title**

NONLINEAR ODES

**UCEAP Quarter Units**

6.00

**UCEAP Semester Units**

4.00

## **Course Description**

This course examines the theory of systems of ordinary differential equations. The emphasis will not be on finding explicit solutions, but instead on the qualitative features of these systems, such as stability, instability and oscillatory behavior. The applications are from biology, physics, chemistry, and engineering, including population dynamics, epidemics, chemical reactions, and simple mechanical systems.

### **Language(s) of Instruction**

English

### **Host Institution Course Number**

MATH3063

### **Host Institution Course Title**

NONLINEAR ODES WITH APPLICATIONS

### **Host Institution Course Details**

<https://www.sydney.edu.au/units/MATH3063>

### **Host Institution Campus**

### **Host Institution Faculty**

### **Host Institution Degree**

### **Host Institution Department**

Mathematics and Statistics Academic Operations

### **Course Last Reviewed**

2024-2025

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