

# COURSE DETAIL

## WATER RESOURCES ENGINEERING

**Country**

Australia

**Host Institution**

University of New South Wales

**Program(s)**

University of New South Wales

**UCEAP Course Level**

Upper Division

**UCEAP Subject Area(s)**

Civil Engineering

**UCEAP Course Number**

111

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

WATER RESOURCES ENGINEERING

**UCEAP Transcript Title**

WATER RESOURCES ENG

**UCEAP Quarter Units**

6.00

**UCEAP Semester Units**

4.00

## Course Description

This course examines engineering hydrology and its application in water resources management and flood estimation. Topics discussed include hydrological cycle, climatology, atmospheric circulation, meteorological measurements, precipitation, streamflow measurement, runoff components, hydrograph analysis, loss rates, IDF and design storm hyetographs, flood frequency analysis, unit hydrographs concepts and linear reservoir method, groundwater, hydraulic conductivity, Darcy's law, intrinsic permeability, water potential, hydraulic head, unsaturated zone, aquifers, aquiclude, aquitards, steady state flow, transient flow, effective stress, transmissivity, storativity, pump test interpretation.

### Language(s) of Instruction

English

### Host Institution Course Number

CVEN3501

### Host Institution Course Title

WATER RESOURCES ENGINEERING

### Host Institution Course Details

<https://www.unsw.edu.au/course-outlines/course-outline#year=2025&term=Term%201&...>

### Host Institution Campus

### Host Institution Faculty

Civil and Environmental Engineering

### Host Institution Degree

### Host Institution Department

### Course Last Reviewed

2024-2025

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