

COURSE DETAIL

OPERATIONAL RESEARCH TECHNIQUES

Country

South Africa

Host Institution

University of Cape Town

Program(s)

University of Cape Town

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Statistics

UCEAP Course Number

146

UCEAP Course Suffix**UCEAP Official Title**

OPERATIONAL RESEARCH TECHNIQUES

UCEAP Transcript Title

OPS RESRCH TECHNQES

UCEAP Quarter Units

12.00

UCEAP Semester Units

8.00

Course Description

This course forms part of the third-year major in Applied Statistics. It is an introduction to the study of Operational Research (OR) and explores fundamental quantitative techniques in the OR armamentarium with a strong focus on computer-based application. The course is intended for students in the applied statistics stream but may be taken as an elective by students in the mathematical statistics stream. Topics covered include linear and non-linear programming where students will learn to find optimal solutions by characterizing problems in terms of objectives, decision variables and constraints, decision making under uncertainty through decision trees, decision rules and scenario planning, Queueing Theory simulation through modelling the operation of real-world systems as they evolve over time. Course entry requirements: STA2030S or STA2005S; STA3030F is recommended.

Language(s) of Instruction

English

Host Institution Course Number

STA3036S

Host Institution Course Title

OPERATIONAL RESEARCH TECHNIQUES

Host Institution Course Details

<https://www.uct.ac.za/sites/default/files/media/documents/uct-handbook-11-2025-...>

Host Institution Campus

University of Cape Town

Host Institution Faculty

Science

Host Institution Degree

Host Institution Department

Statistical Sciences

Course Last Reviewed

2025-2026

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