

COURSE DETAIL

PRINCIPLES AND PRACTICE OF REMOTE SENSING

Country

United Kingdom - England

Host Institution

University College London

Program(s)

University College London

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Geography

UCEAP Course Number

164

UCEAP Course Suffix**UCEAP Official Title**

PRINCIPLES AND PRACTICE OF REMOTE SENSING

UCEAP Transcript Title

REMOTE SENSING

UCEAP Quarter Units

6.00

UCEAP Semester Units

4.00

Course Description

The course provide an introduction to concepts and principles of remote sensing. It will include 3 components: 1) radiometric principles underlying remote sensing: electromagnetic radiation; basic laws of electromagnetic radiation; absorption, reflection and emission; atmospheric effects; radiation interactions with the surface, radiative transfer; 2) assumptions and trade-offs for particular applications: orbital mechanics and choices; spatial, spectral, temporal, angular and radiometric resolution; data pre-processing; scanners; and 3) time- resolved remote sensing including: RADAR principles; the RADAR equation; RADAR resolution; phase information and SAR interferometry; and LIDAR remote sensing, the LIDAR equation and applications.

Language(s) of Instruction

English

Host Institution Course Number

GEOG0040

Host Institution Course Title

PRINCIPLES AND PRACTICE OF REMOTE SENSING

Host Institution Campus

University College London

Host Institution Faculty

Host Institution Degree

Host Institution Department

Geography

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