

COURSE DETAIL

RESEARCH METHODS IN ENVIRONMENTAL SCIENCE

Country

Netherlands

Host Institution

Wageningen University and Research Center

Program(s)

Wageningen University

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Environmental Studies

UCEAP Course Number

115

UCEAP Course Suffix**UCEAP Official Title**

RESEARCH METHODS IN ENVIRONMENTAL SCIENCE

UCEAP Transcript Title

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UCEAP Quarter Units

5.00

UCEAP Semester Units

3.30

Course Description

This course focuses on research methods and design in the environmental sciences. Students apply knowledge gained in this course by developing a research project. Using examples from the environmental sciences, this course teaches students three research designs: the experiment, the cross-sectional study, and the longitudinal design. This course explores several methods relevant to these designs including sampling, methods of data collection (primary and secondary data) and approaches to data analysis. Students draw on research designs and methods discussed in class to build a research plan. Starting from a practical environmental problem, students formulate a research objective and appropriate research questions. They then develop a research project using the experimental, the cross-sectional, and the longitudinal research design. After successful completion of this course, students are able to explain the differences between a conceptual and a technical research design; describe the defining features of an experimental, cross-sectional, and longitudinal design; discuss the operationalization of one and multidimensional concepts; describe random and non-random sampling, detail the pros and cons of different data collection methods; reflect critically on the assessment of causality; discuss the reliability and validity of measurements; and craft elaborate research designs in the environmental sciences.

Language(s) of Instruction

English

Host Institution Course Number

YRM-20306

Host Institution Course Title

RESEARCH METHODS IN ENVIRONMENTAL SCIENCE

Host Institution Campus

Forest and Nature Conservation

Host Institution Faculty

Host Institution Degree

Host Institution Department

Research Methodology

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