

Course: Science & Research Methodology & Statistics

credits: 5

Course code	ESVM20SRM
Name	Science & Research Methodology & Statistics
Study year	2022-2023
ECTS credits	5
Language	English
Coordinator	S.P. Elbert

Modes of delivery	Teaching method 1 Tutorial
Assessments	Science & Research Methodology - Assignment

Learning outcomes

After successful completion of this course, students are expected to be able to:

1. have an overview of (quantitative and qualitative) research methods available;
2. formulate a research questions and hypotheses concerning the transition towards sustainable societies;
3. choose an appropriate research methodology based on a research question;
4. explain differences between various statistical techniques and identify an appropriate technique given a research question;
5. demonstrate competency in statistical data analysing and appliance of software packages SPSS to perform descriptive as well as inferential statistics;
6. construct an argument using theory and data.

Content

As a transition strategist, it is essential to have a basic understanding of the many research methods available to gain insight into processes that give rise to the energy transition. This course is therefore a theoretical course with accompanying assignments in which the acquired knowledge and skills can be applied. During the course, an overview of research methods is offered, and a basic understanding of the scientific process and research methodology is gained. The course offers an introduction to both qualitative and quantitative research methods, the latter by introducing students to (descriptive and inferential) statistics with emphasis on concepts and methods frequently applied in social research. In this course, the acquired knowledge and skills will be used to address real-world, important research questions in the field of the transition towards sustainable societies.

Included in programme(s)

Energy for Society

School(s)

Institute of Engineering