Introduction to Electronic Data Capture Software REDCap and to the R programming language.

Description

This course is divided in two parts: Part 1 is a short introduction to the electronic data capture software REDCap, a secure web application for building and managing online surveys and databases. The course offers a basic introduction to clinical data management and covers the basic steps involved when building up a small study database.

Part 2 is a practical introduction to the R programming language. The course is meant for beginners. During the course, participants will learn how to use R for performing statistical analyses in the context of life sciences. We will start by describing very simple functionalities and we will then use real datasets in order to explore visualization techniques, perform statistical tests and fit simple regression models. In this course we will utilize R-studio, a freely available environment that greatly facilitates the use of R. We will also show how to use R markdown to easily create reports from data analyses. Students should bring their own laptop for the practical work. Participants should have basic statistical knowledge. Programming skills are not required.

Objectives

By end of part 1, students will be able to setup a simple survey with the basic types of questions for the data entry with REDCap. By the end of part 2, students will have learned basic functionalities of R such as installing libraries, opening and using R scripts, understanding the basics of R programming language, running commands in order to perform descriptive statistics, statistical tests and simple regression models, and producing graphs. The course will consist of short lectures followed by extensive l practical exercises.

Dates

22 – 24 November 2023

Equipment

Participants should bring their own computers (for which they have administrative rights) with the latest R and R-studio already installed.
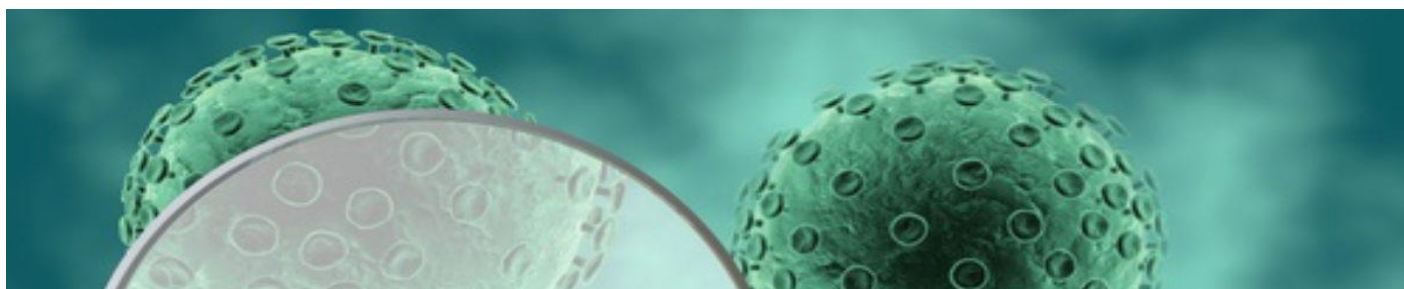
Contact:

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CAS in Clinical Research

Course Structure	Lessons and practical exercises.
Credits	**1 ECTS** Preliminary Work: 1 h, Contact: 21 h, Wrap-Up Work: 7 h (1 ECTS corresponds to appr. 30 hours' work)
Facilitator	Prof. Georgia Salanti, Institute of Social and Preventive Medicine (ISPM) Bern Dr. Orestis Efthimiou, PD, Institute of Social and Preventive Medicine (ISPM) Bern Dominik Güntensperger, PhD, Institute of Social and Preventive Medicine (ISPM) Bern
Location	ISPM Bern, Hallerstrasse 6, 3012 Bern, room 205

Contact:

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