

# How to Design, Plan and Perform a Research in Clinical Dentistry

## Course information

### Course Director:

**Prof. Guglielmo Campus**  
School of Dental Medicine  
University of Bern - CH

### Faculty:

**Prof. Marco Dettori (Associate Professor in Public Health)**  
Dipartimento di Architettura, design e urbanistica  
University of Sassari - IT

**Prof. Mariagrazia Cagetti (Associate Professor in Paediatric Dentistry)**  
School of Dental Medicine  
University of Milano -IT

**Prof. Peter Lingström (Dean School of Dental Medicine)**  
School of Dental Medicine  
University of Gothenburg - SE

### Course description

This course will provide a comprehensive overview on how researchers should design, plan and perform a scientific study in the field of Clinical Dentistry. More specifically, different aspects of oral health conditions will be analyzed focusing on the quantitative, qualitative and epidemiological aspects. The course will provide a detailed description of all research designs which might be implemented in different clinical scenarios, and it will discuss data analysis, and the validity of research in dentistry. The course will describe updated developments in epidemiologic methods for oral health public health and related clinical research. A detailed overview of elements of epidemiologic data-analysis which can be implemented in Dentistry will be provided.

### Course objectives

The main aims of this course include:

- To provide a comprehensive description of the available research designs which can be used in research in clinical dentistry;
- To provide the principles and methods of oral health epidemiology and oral public health for quantitative and qualitative clinical research;
- To prove demonstrate their applicability in the field of dentistry and oral-health clinical medicine;
- To prove the interrelations of oral public health and clinical research.

## Program Course

The course will be structured in 3 different parts:

1. Preparatory work: participants will be asked to mandatory read specific articles provided by the faculties on dedicated topics which will be in details discussed during the frontal classes.
2. Five (5) frontal lessons will be performed by the faculty members in a 1-week period. The lessons will last 4 hours (20 hours in total) and will cover the following topics:
  - Basics in study design in clinical dentistry
  - Strategies in planning, performing and disseminating the results of an RCT
  - Strategies in performing the correct sampling process and management of missing data
  - Statistical methods used in clinical dentistry
  - Strategies in planning, performing and disseminating the results of a survey in clinical dentistry
3. Practical exercises: at the end of each lecture, the participants will be asked to work in small groups and solve practical exercises gathered from clinical dentistry applying the methods shown during the lecture.

## Participant profile

PhD Students, Dentists, Post-graduate students in Dentistry (MAS Candidates), Epidemiologists, Clinicians interested in research, oral public health scientists.

## Assessment

The final exam will consist in a Power-point/Keynote presentation by the candidate. The participant will be asked to critically describe, assess, and eventually correct a previously published paper in light of the acquired knowledge following this course.

## Location

ZMK Bern (Freiburgstrasse 7, 3010 Bern)  
All frontal lectures will be available online *via* Zoom.  
The room will be announced to the participants before the course.

## Course dates

13, 14, 15, 16 November 2023  
9-12; 13-15

## Registration Deadline

3<sup>rd</sup> November 2023

## Credits

2 ECTS  
Preliminary Work 15 h; Contact time 20 h; Wrap-Up Work 15 h  
(1 ECTS corresponds to appr. 25-30 hours workload)

## Registration and fee:

GHS students: No fees apply. Please register in [KSL/CTS \(root number 485555\)](#)

Other participants:

For further information about course fee and registration, please send an e-mail to Prof. Guglielmo Campus [guglielmo.campus@unibe.ch](mailto:guglielmo.campus@unibe.ch)