B101.20.23

Introduction to Epidemiology and Study Designs

Goal	According to the dictionary of epidemiology, «Epidemiology is the study of the distribution and determinants of health-related states or events in specified populations and the application of this study to control of health problems». In this module we will cover basic epidemiologic terms and definitions, as well as the main epidemiologic quantities we encounter in public health related publications and in clinical studies. Furthermore, you will learn to identify the study designs most often used in population-based and clinical epidemiology.
Contents	- Basic terms in demography (sex and age structure of the population, birth and death rates, life expectancy and infant mortality) - Study designs we cover: Cross-sectional, cohort and case-control studies, intervention studies and diagnostic accuracy studies - Basic quantities in epidemiology: Prevalence, incidence rates (crude and age-adjusted), risk ratio, risk difference, number needed to treat, odds ratio, sensitivity, specificity
Methods	The module consists of two days of work in class and completion of tasks between the two days. The module follows in part the textbook «Essential Epidemiology 3rd edition (2017)» by Penny Webb and co-authors. Some reading (about 100 pages) will be necessary before the first day and between the two module days. The teaching materials will be made available on a password-protected module homepage (http://intro-epi.ispmbern.ch/). In total 12 hours of off-class work and task completions are expected between May 12 and May 15.
Exam	Written exam during the module
Preparation and postprocessing	12 hours preparation, no postprocessing 12 hours of off class work between the two module days
ECTS Credits	1 ECTS Credit
Organisation	Institut für Sozial- und Präventivmedizin der Universität Bern
Module lead	Prof. Dr. med. Claudia Kuehni, Institut für Sozial- und Präventivmedizin der Universität Bern Prof. Dr. Marcel Zwahlen, Institut für Sozial- und Präventivmedizin der Universität Bern
Dates	12 and 15 May 2023
Location	Bern
Fees	CHF 1'100.-
Registration deadline	12 March 2023
Additional information	Teaching languages are English and German.