**Lecturers**

Berlin Institute of Health
BIH-Core-Unit eHealth und Interoperabilität (CEI)
Prof. Dr. Sylvia Thun

Charité – Universitätsmedizin Berlin
Anesthesiology and Intensive Care Medicine
PD Dr. Falk von Dincklage
Dr. Gregor Lichtner
Dr. Johannes Starling

Einstein Center Digital Future (ECDF)
Prof. Dr. Dr. Felix Balzer

Charité – Universitätsmedizin Berlin
Institute for Radiology
Dipl.-Ing. Andreas Kofler

Freie Universität Berlin & Zuse Institute Berlin
Medical Bioinformatics
Prof. Dr. Tim Conrad

Technische Universität Berlin
Economics and business law, civil-, commercial-, corporate and innovation law
Dr. Martin S. Haase

The intensive short courses at BSPH are organized by the Institute of Public Health.

**Institute of Public Health**
Prof. Tobias Kurth, MD ScD, Director

**Venue**
Charité – Universitätsmedizin Berlin
Campus Charité Mitte
Seminarroom 03.006
Virchowweg 24

**Course Information**
Course language: English
ECTS points: 3
Course fees: 510 € for students
750 € for other participants

**Registration Information**
Tanja Te Gude
Tel. +49 30 450 570 812
tanja.te-gude@charite.de

https://iph.charite.de/en
https://bsph.charite.de
Course Description

The aim of this intensive short course Medical Informatics is to enhance students’ abilities to assess and classify data-driven solutions for healthcare. Despite the fact that large amounts of data are produced routinely in clinical settings and stored in electronic health records, the subsequent usage of these data in everyday practice, e.g. for AI-powered clinical decision support systems, is still in its infancy.

In this course, we will introduce students to health information technologies and large healthcare databases. Students will learn to assess electronic health records, to extract data from them, to work with these datasets, to recognise patterns, and to better understand data protection and regulatory aspects.

Graduates of this course should be able to assess opportunities and risks presented by data-driven healthcare approaches. They should be able to readily apply their learned skills and knowledge in healthcare institutions for procurement analysis or change management, in research organisations for identifying an innovative focus, or in industry for leading a health data science team.

Audience
The course is suited for clinicians, researchers, public health professionals, and engineers who are interested in pursuing careers within the medical informatics and/or health data science domains.

Course Pre-requisites
Basic analytic background (statistics, epidemiology), basic computing skills.

Program
05 – 09 August 2019 | 9am – 5pm

Monday, August 05
am Introduction to Health Information Technology
pm Introduction to Data Science with Python

Tuesday, August 06
am Terminologies and Ontologies (Part 1)
pm Terminologies and Ontologies (Part 2)

Wednesday, August 07
am Information Extraction from Electronic Health Records
pm Medical imaging, pattern recognition

Thursday, August 08
am Analysis of large data-sets (Part 1)
pm Analysis of large data-sets (Part 2)

Friday, August 09 (ends 13:00)
am Data protection and regulatory aspects