

Introduction to Systematic Literature Searching

Graduate School for Health Sciences and Graduate School for Cellular and Biomedical Sciences, autumn 2015

This course is aimed at PhD candidates and other researchers who need to carry out a systematic literature search. It consists of three modules: a half-day foundation course (attendance compulsory), a module on biomedical, molecular and chemical databases, and a module on clinical databases. For each of the latter two 0.5 ECTS points are awarded on successful completion of a piece of multiple choice coursework.

For the sessions on Oct. 28th, participants are asked to bring their own laptops. A tablet - if you happen to have one - would also be helpful for the foundation module.

Introduction to Systematic Literature Searching: Using e-Resources, Database Basics and Reference Management (Gerhard Bissels)

Oct. 28th, 2016, 9.00 am - 12.00 pm, FBB, Baltzerstr. 4, PC room (Ground Floor)

Morning session I: 9.00 am - 10.20 am

- Introduction to library services in general
- Library homepage
 - OPAC
 - e-journals
 - databases
 - Remote access to licensed resources via VPN
- Database vs. search engine (Google Scholar pros + cons)

[10.20 am - 10.40 am tea/coffee break]

Morning session II: 10.40 am - 12.00 pm

- Reference Management Software - introduction and overview:
 - how to use the online search function
 - how to get references and full-texts

- how to work with references (citing)
- how to organize your references (groups, searching)
- Keeping up with journals: Browzine

N.B. Completion of this module is compulsory for admission to either, or both, of the other two modules.

Introduction to Systematic Literature Searching: Biomedical, Molecular and Chemical Databases (Dr. Michelle Schaffer)

Oct. 28., 2015 1.30 pm - 5.00 pm, FBB (Baltzerstr. 4), B179 (1st Floor)

Afternoon session I: 1.30 pm - 3.10 pm

- Biomedical databases
 - NCBI - National Center for Biotechnology Information
 - EBI - The European Bioinformatics Institute
 - Access to information: The discovery system Entrez
- UniProt - Protein database
- The three main genome browsers
- GenBank & RefSeq
- BLAST – Basic Local Alignment Search Tool
 - BLAST search steps and searching strategies
 - BLAST algorithm
 - Multiple Sequence Alignment; pfam database
- Taxonomy database

[3.10 pm - 3.30 pm tea/coffee break]

Afternoon session II: 3.30 pm - 5.00 pm

- Human Disease databases
 - OMIM
 - dbSNP
- Protein and nucleic acid structure databases
 - PDB
 - Structure (NCBI)
 - Databases with comprehensive classification systems for protein structures (SCOP2, CATH, The Dali Server)
- Further interesting databases of NCBI
 - BioSystem database
 - CDD – Conserved Domain Database

- PubChem

N.B. For this module you will have to bring your own laptop, with access to university wifi enabled (see http://www.id.unibe.ch/content/services/wireless_lan/deutsch/auf_einen_blick/index_ger.html for details).

Credit: 0.5 ECTS points after the successful completion of an on-line multiple choice assignment.

Systematic Literature Searching: Clinical Databases (Maria-Inti Metzendorf)

Nov. 6th, 2015, 9.30 am - 5.00 pm, FBB (Baltzerstr. 4), PC room (Ground Floor)

Morning session I: 9.30 am - 10.50 am

- Introduction to systematically searching the biomedical literature
- The 'Evidence Pyramid' of biomedical literature
- Core STM literature databases I: Medline (PubMed)
 - MeSH
 - Accounts, saving searches, alerting services

[10.50am - 11.10 am tea/coffee break]

Morning session II: 11.10 am - 12.30 pm

- Building searches (Boolean Operators, Search methods, building blocks)
- Medline "hands on"

[12.30 pm - 2.00 pm Lunch Break]

Afternoon session I: 2.00 pm - 3.20 pm

- Core STM literature databases II: Embase (Ovid)
- Core STM citation databases: Scopus / Web of Science
- Embase/Scopus/Web of Science "hands on"

[3.20 pm - 3.40 pm Break]

Afternoon session II: 3.40 pm - 5.00 pm

- Cochrane Collaboration, The Cochrane Library and Systematic Reviews
- Trial registers
- Cochrane Library / Trials registers "hands on"

Credit: 0.5 ECTS points after the successful completion of an on-line multiple choice assignment.

For tea and lunch breaks, please make your own arrangements. The Bühlplatz canteen is open from 8.30 am to 3.30 pm (3.15 pm on Friday). There is a drinks vending machine in the Baltzerstrasse 4 building on 1st floor.

Course Presenters

Maria-Inti Metzendorf

is a Graduate Information Scientist and has been working for the Cochrane Metabolic and Endocrine Disorders Group based at the Institute for General Practice at the Heinrich-Heine-University in Düsseldorf since April 2014. She designs and runs search strategies for the production of systematic reviews on biomedical databases and trials registers. Before joining the Cochrane Collaboration she worked as a medical librarian at the University of Heidelberg for six years, where she was involved in teaching students, clinicians and researchers on how to conduct literature searches.

Dr. Michelle Schaffer

received her PhD in chemistry at the University of Zürich. Her thesis characterized the interaction of metal ions on the structure and function on RNA. Other work include the establishment of a cell culture system to monitor Hemoglobin-oxidant interaction during her Master thesis in Biochemistry and the sequencing and functional analysis of bacteriophages for *Listeria monocytogenes* as research assistant at the ETH in Zürich. In February 2015, she moved to the University of Bern for an internship as scientific librarian.

Gerhard Bissels

joined Bern university in November 2012 as subject librarian for Medicine and academic lead for the medical, dental and veterinary section of the university library. He holds a Staatsexamen in Classics (Kiel University) and M.A.s in Modern Greek Studies (King's College London) and Library and Information Science (University College London), and worked as a teacher of German before moving into academic, then medical librarianship.

How to register for this course

Please send an email to gerhard.bissels@ub.unibe.ch, stating:

- your name and email address
- your role, course of study, or degree programme
- which modules you wish to take (remember, the introductory module on Oct 28th, am is required for admission to the other two)
- the topic of your thesis or project

Priority will be given to PhD candidates from the Graduate School for Health Sciences and the Graduate School for Cellular and Biomedical Sciences. Registration deadline is Oct. 12th, 2015.