Module Time Table for the Core Elective Module BIO 368 *Scientific Information Literacy* (FS 2013)

Time: Monday, 15.00 – 16.30 hr (18.2.-27.5.2013 → 12 Double lectures).
Place: Computer classroom Y11 J 05
ECTS: 3 (≙90 Hours)

Aim of the module: Students are able to organise the process from the information needs to the publication of a paper creatively, consciously, and critically.

Date	Topic	Content	Lecture aims
18.02.2013 Schubnell	Introduction into the world of scientific information	• Organisational matters • Scientific work / study skills • Information resources and market	The students deal with the world of scientific information and find solutions on how to optimally arrange the scientific work process.
25.02.2013 Schubnell	Internet	• Search engines • Subject portals • Evaluation of websites • Wikipedia • Library resources	Students compare different search engines and subject portals. They evaluate internet sources and logically decide which sources will be useful for their research.

04.03.2013
Schubnell
	Efficient Retrieval	• Search preparations
		• Selecting the appropriate sources of information
		  • *Library catalogues*
		  • *Electronic journals*
		  • *Search Portal*
		• Search methods
		• Evaluation
		• Processing the results
			The students recognize the value of good preparation for research as they deal with the identification of the theme, the selection of appropriate search terms and the search options of the chosen bibliographic databases. Knowledge of search methods and appropriate evaluation criteria help the students to adapt their search strategies.

11.03.2013
Schubnell
	Bibliographic Databases I	• Web of Science
		  • *Boolean operators*
		  • *Proximity operators*
		  • *Truncation*
		  • *Limits*
		  • *Index search / keyword search*
			Students will acquire, with the help of the bibliographic database Web of Science, various search techniques.

18.03.2013
Schubnell
	Bibliographic Databases II	• PubMed
		  • *Consolidation of the search methods (11.3.)*
		  • *Thematic search*
		• Embase
		  • *Efficient search strategy in Embase*
			Students will acquire knowledge about the content and scope of the two literature databases PubMed and Embase, with emphasis on the PubMed database. They are capable of executing focused, thematic searches in PubMed and manage the search results.

25.03.2013 Schubnell	Bibliographic Databases III	• BIOSIS Previews • Zoological Record Plus • Database comparison (swissbib, Google Scholar, WoS, PubMed, Embase, BIOSIS, ZR, etc.)	Students are able to execute target research in the databases BIOSIS Previews and Zoological Records and to manage search results. They compare the relevant databases in biology on the content, scope and search options.
08.04.2013 Verhoustraeten	Reference Management I (EndNote Web)	• Creating, managing and sharing references and documents • Import from original databases into Mendeley • Insert and format references in Word documents • Creating bibliographies • Applications in the web, desktop and app version	The students use the reference management software Mendeley and recognize the purpose of a reference management system.
22.04.2013 Verhoustraeten	Reference Management II	• Comparison of Mendeley / EndNote Web • Comparison of EndNote Web / EndNote • Other reference management software	The students deal with other reference management software and decide which reference management software they want to work with.
Fuhrer	Correct citation use and plagiarism	• Referencing print and electronic media • Citation styles (ACS, MLA) • Digression: Plagiarism (definition, avoiding plagiarism, plagiarism software)	Students will evaluate different citation styles and decide according to their needs, which citation style they have to use. In a digression, the students critically address the issue of plagiarism.

29.04.2013
Schubnell
	Bibliometrics I	• Definition and applications
		• Bibliometric data sources
		  • *Web of Science*
		  • *Journal Citation Reports*
		  • *Scopus*
		  • *Alternative analysis tools*
		• Output analysis using Web of Science und Scopus
			Students define the term bibliometrics and answer the following questions by using Web of Science and Scopus:
			• Which authors have published most on the chosen field of research?
			• Which institutions are active in the chosen field of research?
			• Which are the core journals?

06.05.2013
Schubnell
	Bibliometrics II	• Popular bibliometric indicators:
		  • *Journal Impact Factor*
		  • *Citation rate*
		  • *h-Index*
		• Google Scholar applications
		• Critical discussion of the bibliometric practice
			The students compare the two citation databases Web of Science and Scopus, and critically evaluate evaluate their analysis tools. They form their own opinions on the science evaluation in general and the use of bibliometric indicators to measure research activities and quality of a scientist.

13.05.2013
Fuhrer
	Open Access I	• Introduction to Open Access
		  • *Problem of current scholarly publishing*
		  • *Approaches to Open Access strategies*
		  • *Open Access movement, projects and initiative*
		• Impacts, arguments, reservations
		• Business models
		• Publishing with Open Access
			After an introduction to Open Access, students reflect on the scientific publication process and discuss reasons for Open Access, but also their reservations.

27.05.2013 Fuhrer Fuhrer / Schubnell / Verhoustraeten	Open Access II Evaluation results Question about your portfolio	• Legal issues • Open Access at the UZH • ZORA • Discuss evaluation results • Questions about your portfolio	Students evaluate legal issues around Open Access and apply Open Access in practice. All lecturers are available to answer questions.