

Study in English at the Department of Information Science

Summer Term – April till October

Start of lectures: ~ April 1st / End of lectures: ~ July 15th

Erasmus contact person: Tamara Heck, tamara.heck@hhu.de

Please note: The credits are based on the German study regularities. Course credits and credit considerations for foreign Erasmus students depend on the agreements with the home university.

For Bachelor and Master Students:

Module Information Retrieval (I1)

Course name	Deep Web Retrieval
Offered	summer term
Course form	self-study course (seminar)
Credits	2
Prerequisites	basic studies in information science (e.g. lecture in I1)
Target year	1-2
Assessment	written exam at the end of July
Lecturer	Tamara Heck (tamara.heck@hhu.de)
Aim	Students should learn <ul style="list-style-type: none"> • to analyze and describe a personal information need. • to understand and apply information retrieval methods and approaches. • to do advanced searches in professional databases (deep web) concerning a complex scientific or economical topic. • to use a command language for professional searches. • to critically evaluate scientific literature and resources.
Contents	analyzing information needs; understanding and evaluating scientific sources and literature; research in professional databases: using a command language for search with STN host
Literature	given by lecturer in the 1 st meeting

Course name	Programming Course: Information retrieval (Practice)
Offered	summer term
Course form	programming course
Credits	2
Prerequisites	basic studies in information science (e.g. lecture in I1)
Target year	1-2 (programming beginners)
Assessment	announced by lecturer in the 1 st meeting
Lecturer	Tobias Siebenlist (tobias.siebenlist@uni-duesseldorf.de)
Aim	<p>Students should learn</p> <ul style="list-style-type: none"> • to be able to write small programs. • foundations of programming languages e.g. Python. • to understand and apply information retrieval methods and approaches.
Contents	application of the content of basic studies in information science using a programming language
Literature	given by lecturer in the 1 st meeting

Module Informetrics (I3)

Course name	Informetrics
Offered	summer term
Course form	self-study course (seminar)
Credits	2
Prerequisites	basic studies in informetrics (e.g. lecture in I3)
Target year	2-3
Assessment	written documentation + presentation of results
Lecturer	Sergej Sizov (sizov@hhu.de)
Aim	<p>Students should learn</p> <ul style="list-style-type: none">• To perform scientometric evaluation (e.g. impact measurements) in realistic scenarios;• To analyze complex problems (comparative studies for researchers, journals, conferences) along multiple aspects and with various data sources;• To apply skills of scientific work (structured problem analysis, documentation, presentation, discussions)
Contents	<p>Multi-modal comparative evaluation of scientific performance for conferences, journals, or scientists in a certain domain. Use of state of the art scientometric metrics (citation indexes, altmetrics) together with complementary data sources. Lectures on technical basics of scientometric analysis and scientific communication. Regular individual consultations on project progress.</p>
Literature	given by lecturer in the 1 st meeting

Course name	Search Engine Optimization
Offered	summer term
Course form	self-study course (seminar)
Credits	2
Prerequisites	basic studies in information retrieval + informetrics (e.g. lectures in I1 + I3)
Target year	2-3
Assessment	practical SEO implementation for a test scenario, written documentation + presentation of results
Lecturer	Sergej Sizov (sizov@hhu.de)
Aim	<p>Students should learn</p> <ul style="list-style-type: none"> • To analyze complex data sources (Web, social media, citation networks) using state of the art graph mining and content mining methods; • To perform optimization of Web content for better ranking and visibility in search engines using methodically sound common improvements; • To analyze the impact of performed actions regarding improvements in search engine ranking and content quality.
Contents	State of the art content analysis and graph / link mining methods. Basics of state of the art Web technologies: HTTP, HTML5/CSS, metadata and rich content. Best practices of search engine optimization. Development, implementation, evaluation and documentation of a custom SEO strategy. Regular individual consultations on project progress.
Literature	given by lecturer in the 1 st meeting

Module Applied Information Science (I4)

Course name	Facebook Research
Offered	summer term
Course form	self-study course (seminar) / Module I3 (Informetrics) or I4 (Applied Information Science)
Credits	2
Prerequisites	basic studies in information science (e.g. lectures I1 and I2)
Target year	2-3
Assessment	presentation of own research results and preparation of a scientific paper (due by the end of June)
Lecturer	Katja Baran (Katsiaryna.Baran@uni-duesseldorf.de) & Wolfgang G. Stock (stock@phil-fak.uni-duesseldorf.de)
Aim	Students should learn <ul style="list-style-type: none">• to understand users of social network services (especially Facebook) and their motivations, self-presentations, and problems with privacy and cyberbullying.• to conduct user research on Facebook.• to present research results in the class and to prepare a scientific paper.
Contents	application of user research on the topics of Facebook use and Facebook users
Literature	Basic: Wilson, R. E., Gosling, S. D., & Graham, L. T. (2012). A review of Facebook research in the social sciences. <i>Perspectives on Psychological Science</i> , 7(3), 203-220.

For Master Students:

Course name	Team project / Research project
Offered	summer term
Course form	advanced course Master
Credits	12
Prerequisites	Bachelor in information science, LIS or similar
Target year	1-2
Assessment	scientific publication
Lecturer	alternating
Aim	Students should learn <ul style="list-style-type: none">• to work on a scientific project within a small team of 2-5 people.• to formulate research questions and scientific aims.• to plan a scientific study.• to understand and apply scientific methods of the information science field.
Contents	The topic of the project depends on the participating team members. Lecturer and participants will arrange the topic together.
Literature	given by lecturer in the 1 st meeting