

Course title: Engineering information and data analytics – ~~selectable~~ / regular course

Number of contact hours: 15 hours (7h lectures, 8h computer laboratory)

ETCS credits: 1

Course description: Research and technology go forward, based on earlier knowledge. This earlier knowledge can be found in copious amounts and in numerous channels of varying credibility. How do active scientists and engineers find the information they need in this plethora of information? “Scientific publishing and information retrieval” reviews the current landscape of academic and technical publishing, and the mechanisms to spot, evaluate, and utilize information. We describe the current channels for dissemination of knowledge: journals, repositories, patents, and to some extent new publication paths that emerge slowly. Further we will deal with the credibility of published information: we will introduce the metrics in use today (impact factor, h-index, etc), and learn how to use them critically. The second half of the subject will be devoted to practical training on the usage of electronic search engines and databases (Web of Science, Scopus, Reaxys and more).

Education effects ():

- **knowledge:** student knows the mechanisms of scientific dissemination and the relevant terminology, and understands publishing metrics

- **skills:** student can locate effectively information in journals, repositories, tables and databases.

- **social:** student is able to critically assess the credibility of information and utilize it accordingly

Literature: [1] Teacher’s notes [2] Online tutorials of the respective databases

Assessment method: Final test, completing laboratories (presence, reports)

Prerequisites: None

Primary target group: All specialties students

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