

Course Description

Advanced Seminar

In the course **Advanced Seminar**, students work with up-to-date research publications in a selected research field relevant for Web Science. Term papers are being developed by groups of students with the objective of strengthening the skills in research methods.

Contents

- 1 The Big Idea
- 2 Intended Learning Outcomes
- 3 Structure of the Course
- 4 Didactic Concept, Schedule and Assignments
 - 4.1 Preparing the Participation
 - 4.2 Introductory workshop on site
 - 4.3 Online session for the commitment of the work plans and first discussion of topics for term papers
 - 4.4 Online session for the commitment of the topics for the term papers
 - 4.5 online milestone meetings
 - 4.6 peer review
 - 4.7 Wrap-up session on site
- 5 Examination
- 6 References

The Big Idea

Due to the fact, that the Web Science programme is being attended by students with quite diverse backgrounds, it is vital for the students to develop an integrated methodical and formal background for academic work in the field of Web Science. This background is mainly determined by the conventions in Science in general and in Informatics in particular. But also the emerging field of Web Science with focal points like the [Web Science Trust](#) or the annual [Web Science Conference](#) develops its own which is of course being integrated. This course aims at providing students with relevant research methods for their further academic career in the field of Web Science.

Intended Learning Outcomes

1. The students know and are able to work with academic resources in the Web and in the library in order to research the state of the art in a certain domain.
2. The students are able to write academic texts according to the conventions in the field of Informatics and Web Science.
3. The students are able to identify and classify relevant topics in up-to-date research literature like conference proceedings, journals or Web resources.

4. The students are used to academic work processes like developing papers to publication quality, judging the quality and relevance of sources, reviewing academic work of peers, or making use of input from lecturers and peer reviewers.

Structure of the Course

In the first phase, the students are asked to elaborate individual mind maps of important skills that they intend to strengthen in order to become proficient in their academic work. A plan is to be developed for the development of those skills. One important point will be academic writing and the students are asked to work with textbooks like the ones by Swales and Feak^[1] and by Glasman-Deal^[2] and by Booth^[3].

In the second phase, the students are asked to identify a topic from up-to-date research and write a paper, that summarizes, contextualizes and discusses the topic in the context of Web Science. The paper is aimed at a audience of Web Scientists. During the development of the paper a peer review will be conducted.

The seminar is finalized by the submission of the seminar papers, presentations and an expert talk.

Didactic Concept, Schedule and Assignments

The course concept comprises online workshops, online discussions, milestone meetings, and audits. In addition, there is an introductory and final on site presence. Online meetings are held on one evening per week during the project.

Preparing the Participation

As main part of the course students will work on a topic based on recent research literature. As a preparation it might be advantageous to browse through the contents of recent Web Science related conferences like:

- [The Web Science conferences](#) (last years conference is not yet in the library. Abstracts can be found [here](#), full papers [here](#))
- [The World Wide Web Conference](#)
- [ACM Conference on Computer Supported Cooperative Work & Social Computing](#)

The objective would be to identify areas of your interest in Web Science and relate it to concrete sections in conferences.

Introductory workshop on site

The introductory meeting deals with organizational course details, a outlook on academic work in general and the master thesis in particular. The students work then individually on the analysis of their strengths and weaknesses and a initial plan to work on them during the seminar. The

criteria for the identification of research topics for the second phase are discussed and the students are asked to work with academic resources until the first online meeting.

Online session for the commitment of the work plans and first discussion of topics for term papers

In the first online session there will be first a plenary discussion on research and the topics for the term papers. Afterwards the lecturer will individually discuss the work plans.

Online session for the commitment of the topics for the term papers

In the first online session there will be a plenary presentation of the topics for the term papers. Afterwards the lecturer will individually discuss the topics as required.

online milestone meetings

Each group will have defined at least two milestones, where online status meetings are being held with the course lecturer. The project groups report their progress related to the milestone definition. For aspects of the work on the term papers, where the progress is significantly behind schedule, alternative plans and fallback solutions are identified and discussed.

peer review

Students are asked to review the drafts of the term papers of their peers around in the middle of the term. Each student reviews two peer papers.

Wrap-up session on site

The seminar is finalized by the on-site meeting, where the term papers are presented and discussed.

Examination

The deliverables of the seminar are

- a term paper of up to 7 pages per student in the [ACM proceedings template](#)
- a poster and a posterpresentation during the concluding on site workshop.

The rating is based on

- work on the plan to enhance proficencie,
- the term paper,
- the review contribution,
- the presentation, and
- overall process.

References

↑ Swales, John M.; Feak, Christine (2012). *Academic Writing for Graduate Students*, 3rd edition. The University of Michigan.

↑ Glasman-Deal, Hilary (2010). *Science Research Writing for Non-Native Speakers of English*. Imperial College Press.

↑ Booth, Wayne C.; Colomb, Gregory G.; Williams, Joseph M.G. (2008). *The Craft of Research*, 3rd edition. University of Chicago Press.

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