# Data and Knowledge Engineering

Sommer

(in German: Data and Knowledge Engineering )

## Module-ID: FIN-INF-120500

| Abbreviation | Credit Points | Semester | Term | Duration | Language | Level |
|---|---|---|---|---|---|---|
| | 6 | Sommer | starting at 1. | 1 Semester | english | Master |

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|---|---|
| **Link:** | LSF |
| **Limited accessability:** | |
| **Responsibility:** | Andreas Nürnberger |
| **Lecturer:** | Andreas Nürnberger |
| **Classes:** | Seminar *Data and Knowledge Engineering* |
| **Applicability in curriculum:** | - M.Sc. INF: Schlüssel- und Methodenkompetenzen<br>- M.Sc. INGINF: Schlüssel- und Methodenkompetenzen<br>- M.Sc. WIF: Schlüssel- und Methodenkompetenzen<br>- M.Sc. DKE: Fundamentals of Data Science<br>- M.Sc. VC: Schlüssel- und Methodenkompetenzen |

**Intended learning outcomes:**
Students who complete the course ...

- understand how to work in practice with DKE approaches
- can perform a literature review on the state-of-the-art on a given topic
- can describe a given DKE task in form of a scientific paper
- can present and defend a practical project by a presentation and discussion

**Content:**
The seminar focuses on applying machine learning techniques to a hands-on problem, resulting in a paper and short presentation in one of the following research areas: Information Retrieval:

- Document organization
- Information management
- Ranking & Explainability

Natural Language Processing
- Named Entity Recognition
- Tokenization & Filtering
- Latent Representations of Words / Sentences / Documents

Human Computer Interaction
- Usability
- User Experience (UX) Design
- Human-AI interaction

**Workload:**
180 h self study

| Pre-examination requirements: | Type of examination: | Teaching method / lecture hours per week (SWS): |
|---|---|---|
| | Written report and oral presentation ( *Referat*). Requirements for exam participation will be announced in the first week of the course in class and online. | Seminar |

| Prerequisites according to examination regulations: | Recommended prerequisites: |
|---|---|
| keine | |

| Media: | Literature: |
|---|---|
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**Comments:**

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