# Human-Centred Approaches and Technologies

Winter

HCAT

(in German: Human-Centred Approaches and Technologies )

**Module-ID: FIN-INF-120490**

| Abbreviation | Credit Points | Semester | Term | Duration | Language | Level |
|---|---|---|---|---|---|---|
| HCAT | 6 | Winter | ab 1. | 1 Semester | english | Master |

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| **Link:** | LSF |
| **Limited accessability:** | |
| **Responsibility:** | Ernesto William De Luca |
| **Lecturer:** | Ernesto William De Luca / Susanne Schmidt |
| **Classes:** | • Seminar / Projekt *Human-Centred Approaches and Technologies* |
| **Applicability in curriculum:** | - M.Sc. INF: Informatik<br>- M.Sc. INGINF: Informatik<br>- M.Sc. WIF: Informatik<br>- M.Sc. DKE: Applied Data Science<br>- M.Sc. DE: Grundlagen Ingenieurwesen<br>- M.Sc. DE: Human Factors<br>- M.Sc. VC: Computer Science |

**Intended learning outcomes:**

- Understanding of scientific writing
- Ability to evaluate scientific papers
- Involvement in scientific conferences
- Familiarity with online submission and review platforms
- Business Plan, Pitch, Start Up feeling, Understanding of Human-Centred Approaches and Technologies

**Content:**

- Scientific Writing
- Understanding of Scientific Conferences
- Reviewing Papers and related process
- Conducting a comprehensive systematic research literature review
- Evaluating research papers and the work of fellow students
- Delivering a final presentation and paper, which could be presented on a conference event
- Topics: Human-Centred Artificial Intelligence and Human-Centred Design, Eduaimonic Interaction Design, Legal AI, Ai and Leadership

**Workload:**
56 h contact time + 94h independent study + 30h project work

| **Pre-examination requirements:** | **Type of examination:** | **Teaching method / lecture hours per week (SWS):** |
|---|---|---|
| Application with motivation Letter and Transcript of Record | Written report (Hausarbeit) | • Seminar (2 SWS)<br>• Project (2 SWS) |

| **Prerequisites according to examination regulations:** | **Recommended prerequisites:** |
|---|---|
| keine | Machine Learning Information Retrieval Data Science Data Mining Fundamentals of Natural Language Processing Introduction to Deep Learning Human-Centred Artificial Intelligence Eudaimonic Interaction Design Human-Centred Natural Language Processing |

| **Media:** | **Literature:** |
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|---|---|
| | • V. Dignum, “Responsible Artificial Intelligence – How to Develop and Use AI in a Responsible Way”, Springer, 2019.<br>• B. Shneiderman, “Human-Centered AI”, Oxford University Press, 2022.<br>• A. Schmidt, “Interactive Human Centered Artificial Intelligence: A Definition and Research Challenges”.<br>• S. Barocas et al., “Fairness and Machine Learning”, 2019.<br>• Documents related to Certification as Professional for Usability and User Experience (CPUX) https://uxqb.org/en/documents/ |

**Comments:**

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