Media Informatics Master

Welcome!

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Dr. Pascal Lessel

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Introduction

Prof. Dr. Antonio Krüger
Chairman of the examination board of Media Informatics (MI)

Dr. Michael Schmitz
Contact person for questions related to the “Hochschule der Bildenden Künste Saar” (Academy of Fine Arts - HBKsaar)

Dr. Pascal Lessel
Contact person for the MI internship and other questions
Agenda

- General Information
- Internship (2nd Semester)
- Thesis (4th Semester)
- HBKsaar Details
First contact when you have questions regarding study documents, study organization and progress, examination related general questions, academic and personal problems, etc.

Examination office
mei@ps-mint.uni-saarland.de

Study coordination (Dr. Rahel Stoike-Sy or Barbara Schulz-Brünken)
studium@cs.uni-saarland.de
Study Regulations ● Examination Regulations ● Course Handbook

If you have a question, there is a high chance that it is answered in these documents

EN: https://www.ps-mint.uni-saarland.de/en/programmes/mei

DE: https://www.ps-mint.uni-saarland.de/de/programmes/mei
We (sek-ak@dfki.de) provided you with an overview document with several useful links and pieces of information along with the invitation to this kickoff meeting. If you missed it (e.g., you heard from this kickoff meeting only from another person), please write an email to pascal.lessel@dfki.de
### Example Study Plan

Consult your study regulations and module descriptions for more details.

<table>
<thead>
<tr>
<th>Term</th>
<th>Master’s Thesis</th>
<th>MAD Project</th>
<th>Advanced Lecture</th>
<th>Soft Skills Mandatory Electives</th>
<th>Internship Seminar</th>
<th>Core Lecture</th>
<th>Core Lecture</th>
<th>MAD Electives</th>
<th>Seminar</th>
<th>Total CP</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>30 CP</td>
<td>8 CP</td>
<td>6 CP</td>
<td>6 CP</td>
<td>12 CP</td>
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<td>9 CP</td>
<td>8 CP</td>
<td>7 CP</td>
<td>30</td>
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<tr>
<td>3</td>
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<td></td>
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<td>5 CP</td>
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<td></td>
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<td></td>
<td>33</td>
</tr>
</tbody>
</table>

**Flexibility:** You can shift courses to other semesters, and you can select courses that fit your interests.

- **Blueish:** Computer Science; **Orange:** HBKsaar, **Purple:** Many options possible (requires typically a-priori acceptance); **Grey:** Typically, non-academic (requires a-priori acceptance)
Course Overview UdS

https://www.lsf.uni-saarland.de

Select a semester

Check the offered courses
Course Overview UdS

You are here: Home → Courses → Course Overview

Search for Lectures
Lectures today
Lectures cancelled today
Search for Lectures
Hide menu

Course Overview (SoSe 2024)

1. Vorlesungsverzeichnis
   1. Mathematics and Computer Science
      1. Computer Science
         1. Courses on Media Informatics
            1. Master, StO 2020
               1. Core Lectures (elective mandatory)
               1. Advanced Lectures (elective mandatory)
               1. Seminars (elective mandatory)
               1. "Free Points"
Example: Core Lectures – **This semester:**

<table>
<thead>
<tr>
<th>Lect.-No.</th>
<th>Lecture</th>
<th>Type</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>149194</td>
<td><strong>Discrete Optimization (before Optimization)</strong> - Karrenbauer</td>
<td>Lecture / Exercise/problem-solving class</td>
<td></td>
</tr>
<tr>
<td>149195</td>
<td><strong>Complexity Theory</strong> - Bläser</td>
<td>Lecture / Exercise/problem-solving class</td>
<td></td>
</tr>
<tr>
<td>149466</td>
<td><strong>Cryptography</strong> - Joux, Hanzlik</td>
<td>Lecture / Exercise/problem-solving class</td>
<td></td>
</tr>
<tr>
<td>149467</td>
<td><strong>Introduction to Computational Logic</strong> - Smolka</td>
<td>Lecture / Exercise/problem-solving class</td>
<td></td>
</tr>
<tr>
<td>149471</td>
<td><strong>Data Networks</strong> - Feldmann</td>
<td>Lecture / Exercise/problem-solving class</td>
<td></td>
</tr>
<tr>
<td>149472</td>
<td><strong>Machine Learning</strong> - Valera Martinez</td>
<td>Lecture / Exercise/problem-solving class</td>
<td></td>
</tr>
<tr>
<td>149474</td>
<td><strong>Operating Systems</strong> - Kaufmann, PhD</td>
<td>Lecture / Exercise/problem-solving class</td>
<td></td>
</tr>
<tr>
<td>151053</td>
<td><strong>Continuous Optimization (Kontinuierliche Optimierung)</strong> - Ochs, Mitarbeiter des Lehrstuhls</td>
<td>Lecture / Exercise/problem-solving class</td>
<td></td>
</tr>
<tr>
<td>151058</td>
<td><strong>Convex Analysis and Optimization</strong> - Ochs, Mitarbeiter des Lehrstuhls</td>
<td>Lecture / Exercise/problem-solving class</td>
<td></td>
</tr>
<tr>
<td>151106</td>
<td><strong>Image Processing and Computer Vision</strong> - Weickert, Mitarbeiter des Lehrstuhls</td>
<td>Lecture / Exercise/problem-solving class</td>
<td></td>
</tr>
</tbody>
</table>
Example: Core Lectures – **Last semester:**

A lot of options are offered every year! Often core lectures are repeated in the same rotation (i.e., in summer terms).

Attention: Advanced lectures and seminars are often only offered once.
Course Overview UdS

How do I receive more information on a course? (i.e., lecture slots or how much ETCS points?)

Course Overview (WiSe 2023/24)

Vorlesungsverzeichnis

- Mathematics and Computer Science
  - Computer Science
    - Courses on Media Informatics
    - Master, StO 2020
  - Core Lectures (elective mandatory)

<table>
<thead>
<tr>
<th>Lect.-No.</th>
<th>Lecture</th>
<th>Type</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>146421</td>
<td>Semantics - Dreyer</td>
<td>Lecture / Exercise/problem-solving class</td>
<td></td>
</tr>
<tr>
<td>146425</td>
<td>Artificial Intelligence - Hoffmann</td>
<td>Lecture / Exercise/problem-solving class</td>
<td></td>
</tr>
<tr>
<td>146426</td>
<td>Automated Reasoning - Waldmann</td>
<td>Lecture / Exercise/problem-solving class</td>
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</tr>
<tr>
<td>146429</td>
<td>Computer Graphics - Skusallek</td>
<td>Lecture / Exercise/problem-solving class</td>
<td></td>
</tr>
<tr>
<td>146431</td>
<td>Digital Transmission, Signal Processing - Herfst</td>
<td>Lecture / Exercise/problem-solving class</td>
<td></td>
</tr>
<tr>
<td>146433</td>
<td><strong>Human Computer Interaction</strong> - Schmitz</td>
<td>Lecture / Exercise/problem-solving class</td>
<td></td>
</tr>
<tr>
<td>146434</td>
<td>Security - Bugiel, Holz</td>
<td>Lecture / Exercise/problem-solving class</td>
<td></td>
</tr>
<tr>
<td>146435</td>
<td>Software Engineering - Apel</td>
<td>Lecture / Exercise/problem-solving class</td>
<td></td>
</tr>
<tr>
<td>146768</td>
<td>Algorithms and Data Structures - Bringmann, Wellnitz</td>
<td>Block lecture course</td>
<td></td>
</tr>
<tr>
<td>147527</td>
<td>Verification - Finkbeiner</td>
<td>Lecture / Exercise/problem-solving class</td>
<td></td>
</tr>
</tbody>
</table>
Studienstätte

Abschluss  Studiengang  Semester  Prüfungsversion  Kommentar  LP  BP  ECTS
LA Sekundarstufe I und II  Informatik  -  2022 9 9
LA beruf.Schulen  Informatik  -  2022 9 9
Bachelor (KB)  Mathematik und Informatik  -  2020 9 9
Master (KB)  Cybersecurity  -  2021 9 9
Bachelor (KB)  Computer Science (engl)  -  2021 9 9
Master (KB)  Data Science and AI  -  2019 9 9
Master (KB)  Embedded Systems  -  2016 9 9
LA Sekundarstufe I und II  Informatik  -  2021 9 9
Master (KB)  Medieninformatik  -  2013 9 9
Bachelor (KB)  Medieninformatik  -  2013 9 9
Bachelor (KB)  Informatik  -  2015 9 9
Master (KB)  Informatik  -  2015 9 9
Bachelor (KB)  Mathematik und Informatik  -  2016 9 9
Master (KB)  Mathematik und Informatik  -  2016 9 9
Master (KB)  Entrep. Cybersecurity  -  2018 9 9
Bachelor (KB)  Informatik  -  2020 9 9
LA Sekundarstufe I und II  Informatik  -  2020 9 9
Bachelor (KB)  Medieninformatik  -  2020 9 9
Master (KB)  Medieninformatik  -  2020 9 9
CS Internal Systems

Internal seminar registration

*Constraint solving to assign seminar spots*

Management system for courses

*Many, but not all CS courses use this*

Seminar preference registration deadline: April 17th, 23:59 CET
Practical Phase

Internship in an external company for (at least) 600 working hours in total

Attend 3 internship talks & give a talk about your internship
Practical Phase

http://umtl.cs.uni-saarland.de/mediainformatics/practical-phase.html

http://umtl.cs.uni-saarland.de/faq
Practical Phase

It’s your responsibility to find an internship.

You do not need to do the internship in Saarland.

A possible internship needs to be approved by us beforehand.

The internship needs to cover topics from the domain of media informatics.

Some companies that already accepted students in the past:

- anynines GmbH (formerly Avarteq GmbH)
- AZURY
- Centigrade
- Create 3D
- Deutsche Hochschule für Prävention und Gesundheitsmanagement (DHfPG)
- Dialogika
- Didactic Innovations GmbH
- Ergosign
- Eyeled
- Fjutscha
- IMC
- KiM
- SAP (St. Ingbert)
- site point
Practical Phase

You need to attend other talks

https://umtl.cs.uni-saarland.de/research/talks.html

Digital meetings!

Seminar

To pass the seminar accompanying the practical phase, there are the following requirements:

1. Attending at least 3 other seminar talks
2. Giving a 30 minute presentation about the internship. This presentation should introduce the company, as well as the work you have done. The presentation is supposed to close with a short summary and what you liked about the internship and what not.

To choose a timeslot for your presentation, please contact the internship contact person with 5 suggestions of possible dates (including your available time on these days) and the following information:

- Title: [Add the title of the talk]
- Type of Talk: Internship-Talk
- Internship-Company: [Add the name of the company where you did your internship]
- Speaker: [Add your name]
- Time and date: [Add the time and date]
- Teams-Link: [Add the link]
- Abstract: [Provide a short abstract of the talk]

After the date is agreed upon, you will receive the Teams link and the talk will be added to the calendar (see below).
Two general options:

• A) Writing your thesis **internally** at Saarland University.
  • This can be typically done at all **Computer Science chairs**.
    Therefore it is reasonable to start finding suitable chairs early and attending their courses.
  • Different requirements!
    Check them out before contacting the corresponding chair/responsible person.

• B) Writing your thesis in an **external company**.
  • You also need to find a Professor of Computer Science at Saarland University who agrees to co-supervise.
Professors of the Computer Science Department

Co-opted professors
Honorary professors
Other Faculty
Emeriti

Prof. Dr. Sven Apel
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E-Mail
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E-Mail
Homepage

Link to their chair pages ➔ Presentation of research interests

https://saarland-informatics-campus.de/en/forschung-research/advisors
Example: UMTL Chair
Example: UMTL Chair
Bachelor/Master Thesis

How can I pursue a thesis at UMTL?

If you are interested in writing a Bachelor's or Master's thesis at our chair, please be aware of the following prerequisites and principles:

1. Optimally, you have successfully attended lectures and/or seminars given by our group (Bachelor or Master).

2. To find an advisor and apply for a topic, there are two options:
   a. You are looking for a topic: Have a look at our open thesis page. Here you can see what we currently offer - every entry illustrates how to apply for it. If you have experience in an area that we cover (please visit the individual web pages of our team members), but no corresponding open topics are available at the moment, you can proactively contact the corresponding member of UMTL. Add your current transcript of records (as well as former ones, if applicable), a motivational statement why the area is a good fit for you and a clear timeframe indicating when you plan to do your thesis (planned start + end date). Please note that there is no guarantee that we can supervise you.
   b. You already have a topic (your own idea or the topic is proposed by an external company): In order to learn more about our research interests, please visit the individual web pages of our team members. Please send Prof. Krüger an email with the names of the team members that match the topic of your intended thesis closest (if you cannot identify a match, we are likely the wrong chair for supervision).
      Please note, if the thesis does not fit to our research agenda or the relevant members have no capacity left, we might not be able to supervise you on this topic (however other Computer Science chairs might be able to, see below). If the topic comes from an external company, please include the original thesis description in your initial contact and also state whether there are aspects the company needs us to consider (e.g., "Spervermerk"/NDAs etc.). If the topic is a fit and a member is interested, Prof. Krüger will initiate the contact.

3. The potential advisor will review your application:
   - You get a positive reply: Great news! You can now proceed with the topic and follow the steps stated in the section "After I have a topic and an advisor - what else do I need?" (if it is an external thesis, see also the common questions section)
   - You receive a negative reply: Sadly, the team member cannot accept your application. This could be because of different reasons, such as the lack of...
## Open Thesis Topics

<table>
<thead>
<tr>
<th>Topic</th>
<th>Supervisor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perception of Audience Influence Options Beyond the Game: Understanding Context Factors</td>
<td>Dr. Pascal Lessel</td>
</tr>
<tr>
<td>Human-Robot Collaboration: User-Study regarding Optimal Work Dynamic and Interaction Modalities</td>
<td>Dr. Tim Schwartz</td>
</tr>
<tr>
<td>Human-in-the-Loop Reinforcement Learning using real-time feedback for industrial robots (Industry 4.0)</td>
<td>Amr Gomaa</td>
</tr>
<tr>
<td>Real-time multi-modal interaction for referencing objects from a moving source.</td>
<td>Amr Gomaa</td>
</tr>
<tr>
<td>Adaptive in-vehicle HMI based on driving behavior using state diagrams.</td>
<td>Amr Gomaa</td>
</tr>
</tbody>
</table>
Questions so far?
Agenda

- General Information
- Internship (2nd Semester)
- Thesis (4th Semester)
- HBKsaar Details
Note: What is shown was for illustrative purposes. Binding are always study program documents etc. and not these slides.