Digital Engineering
Master’s Degree Program

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University of Magdeburg, Germany
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What is Digital Engineering?
Digital Engineering

= Computer Science + Engineering Discipline

⇒ Diverse application scenarios

- Robotics
- Autonomous vehicle
- Smart factory / Smart home
- Intelligent Production

Website: http://vierfores2.ovgu.de/digi-eng/index.php/en/
Study Program Structure
Digital Engineering Structure

- Fundamentals of Computer Science: \( \geq 15\text{CP} \) (or \( \geq 5\text{CP}^* \))
- Fundamentals of Engineering: \( \geq 5\text{CP} \) (or \( \geq 15\text{CP}^* \))
- Human factors: \( \geq 5\text{CP} \)
- Methods of Computer Science: \( \geq 10\text{CP} \)
- Methods of Engineering: \( \geq 10\text{CP} \)
- Interdisciplinary team project: 6CP
- Specialization: \( \geq 15\text{CP} \)
- Digital Engineering project: 12CP
- Master’s thesis: 30CP

\( \sum 120\text{CP} \)

(* dependent on your first study degree)
Where to Choose Modules from?

Module list: http://www.inf.ovgu.de/ordnungenma.html

- Computer Science modules
  - Fundamentals: FIN Bachelor & Master programs
  - Methods of Computer Science: FIN Master programs
- Engineering modules
  - Fundamentals: FEIT/FMB/FVST Bachelor & Master programs
  - Technical Specialization: FEIT/FMB/FVST Master programs
- Human factors
  - Bachelor and Master programs of FHW/FFWW

The modules offered in the current term are in the LSF.

DO NOT use LSF to map modules to thematic areas!
First Semester Courses - Example

- For Engineering background
  - Introduction to Computer Science for Engineers
  - Introduction to Software-Engineering for Engineers
  - Introduction to Computational Intelligence for Engineers
  - Introduction to Simulation
  - Algorithm Engineering
  - Database Concepts
  - Human Factors

- Lectures are given at Summer or Winter term
  → Distribute them over 1\textsuperscript{st} and 2\textsuperscript{nd} semester
Choosing modules to PLAN YOUR STUDIES
YOU choose the courses you want to attend!

Which Engineering Direction?

- Mechanical
- Electrical
- Chemical
- Medical
- ...
Recommendation: Create a Study Plan

Personalized Plan of Studies

1. Find modules
   ✓ Go through the modules offered, according to the LSF
     (https://lsf.ovgu.de/qislsf/rds?state=wtree&search=1&trex=step&root120152=10640|10594|10813|10481&P.vx=kurz)
   ✓ Read the module descriptions (web pages) and
   ✓ Drop by at the first one or two meetings
   ✓ Make sure you have the background needed to attend the course – ASK the teacher if you are not sure

2. Assign the modules you chose to thematic areas
   • Go through the module catalog

3. Write down your plan

4. Update your plan at the end of each semester

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Digital Engineering
### Personal Plan of Studies

<table>
<thead>
<tr>
<th>Thematic Area</th>
<th>Semester</th>
<th>Module</th>
<th>CP</th>
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</thead>
<tbody>
<tr>
<td>Fundamentals of Computer Science</td>
<td>1</td>
<td>1. ...</td>
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<td>2</td>
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<td>3. ...</td>
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<tr>
<td>Methods of Engineering</td>
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<tr>
<td>Human Factors</td>
<td>1</td>
<td>1. ...</td>
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<td>2</td>
<td>2. ...</td>
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</table>
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Digital Engineering
Examinations
Examinations for Master Students

- Each module must be completed with an exam
- What types of exam are there?
  - Oral examination – *mündliche Prüfung*
  - Written examination – *Klausur*
  - Homework – *Hausarbeit*
- Type of exam depends on module
  
  ASK: Teacher
Examinations for Master Students

• When planning the 1st exam for a course, BEWARE
  • NO automatic enrollment – YOU must take action!
  • There are enrollment deadlines; if you miss a deadline, you cannot enroll
  • You can cancel an enrollment until 7 days before exam.
  • Never register for an examination where you have not attend the lecture!

• BEWARE
  • At most three tries per course.
  • You can have three tries for three courses total.
    For all other courses you have two tries.
  • Currently there is NO chance to step back from an exam!
Getting Advice
You can get Advice from

1. Studies Coordinators

   • Prof. Frank Ortmeier  
     Office: G29-404  
     E-Mail: frank.ortmeier@ovgu.de

   • Prof. Gunter Saake  
     Office: G29-110  
     E-Mail: saake@iti.cs.uni-magdeburg.de

Studies Coordinator Assistants

   • Sebastian Nielebock  
     Office: G29-406  
     E-Mail: sebastian.nielebock@ovgu.de

   • Sebastian Krieter  
     Office: G29-001  
     E-Mail: sebastian.krieter@ovgu.de
You can get Advice from

1. Studies Coordinators

2. Coordinator for DE-Projects
   • Dr. Sandro Schulze
     Office: G29-109  
     E-Mail: sandro.schulze@iti.cs.uni-magdeburg.de
     Website: http://www.dbse.ovgu.de/Mitarbeiter/Sandro+Schulze.html
You can get Advice from

1. Studies Coordinators
2. Coordinator for DE-Projects
3. International Relationships and Exchange Coordinator
   • Dr. Claudia Krull
     Office: G29-214
     E-Mail: claudia.krull@ovgu.de
     Website: http://www.inf-international.ovgu.de/
You can get Advice from

1. Studies Coordinators
2. Coordinator for DE-Projects
3. International Relationships and Exchange Coordinator
4. Examinations Office
   • Website: http://www.inf.ovgu.de/pamt.html
You can get Advice from

1. Studies Coordinators
2. Coordinator for DE-Projects
3. International Relationships and Exchange Coordinator
4. Examinations Office
5. FARAFIN Students (E-Mail: post@farafin.de)

Establish contact to FARAFIN!
FARAFIN is the students’ board of the FIN.

- They are students
- They are already familiar with the studies here
- They are volunteers who support other students
- They organize several events – from time management courses to come-together parties
- They also have a mentoring program for international
You can get Advice from

1. Studies Coordinators
2. Coordinator for DE-Projects
3. International Relationships and Exchange Coordinator
4. Examinations Office
5. FARAFIN Students
6. Other DigiEng Students

Get Connected to Other DigiEng Students!

They can help you to

1. Make your plan of studies
2. Enroll for examinations
3. Find out whether you can apply for a transfer of ECTS and how
4. Find your way through unfamiliar procedures
You can get Advice from

1. Studies Coordinators
2. Coordinator for DE-Projects
3. International Relationships and Exchange Coordinator
4. Examinations Office
5. FARAFIN Students
6. Other DigiEng Students
7. DigiEng Facebook Group
   • https://www.facebook.com/groups/223056807855119/
You can get Advice from

1. Studies Coordinators
2. Coordinator for DE-Projects
3. International Relationships and Exchange Coordinator
4. Examinations Office
5. FARAFIN Students
6. Other DigiEng Students
7. DigiEng Facebook Group
8. Faculty’s official page for international students
   • http://www.inf-international.ovgu.de/