Digital Engineering
Master’s Degree Program

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What is Digital Engineering?
Digital Engineering

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Computer Science + Engineering Discipline

- Diverse application scenarios
  - Robotics
  - Autonomous Vehicles
  - Smart factory/Smart home
  - Intelligent Production

Web page: http://www.digi-eng.ovgu.de/en/
Study Program Structure
Digital Engineering — Structure

- Fundamentals of Computer Science:
- Fundamentals of Engineering:
- Human factors:
- Methods of Computer Science:
- Methods of Engineering:
- Interdisciplinary team project:
- Specialization:
- Digital Engineering project:
- Master’s thesis:

\[ \sum 120 \text{ CP} \]

\[ \geq 15 \text{ CP} \text{ (or } \geq 5 \text{ CP*}) \]

\[ \geq 5 \text{ CP} \text{ (or } \geq 15 \text{ CP*}) \]

\[ \geq 5 \text{ CP} \]

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\[ \geq 10 \text{ CP} \]

\[ 6 \text{ CP} \]

\[ \geq 15 \text{ CP} \]

\[ 12 \text{ CP} \]

\[ 30 \text{ CP} \]

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

- Module list:
  1. Go to https://www.inf.ovgu.de/
  2. Click on *Examination Office*, on the next page click on *Study Regulations*
  3. There you find everything you need (see screenshot next page)
     - Module list
     - Module catalogue
     - even the (most recent) study regulations
<table>
<thead>
<tr>
<th>Computer Science</th>
<th>Computational Visualistics</th>
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<tbody>
<tr>
<td>Bachelor</td>
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<td>Study &amp; examination Regulations</td>
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<td>Internship Regulations</td>
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<td>Degree Program Information</td>
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<td>Data and Knowledge Engineering</td>
<td>Digital Engineering</td>
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<td>Master</td>
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Privacy Policy pursuant to the GDPR
Where to Choose Modules from?

Some general rules for choosing modules

• Computer Science modules
  • Fundamentals: all courses from FIN Bachelor & Master programs
  • Methods of Computer Science: all courses from FIN Master programs

• Engineering modules
  • Fundamentals: all courses from FEIT/FMB/FVST Bachelor & Master programs
  • Technical Specialization: all courses from FEIT/FMB/FVST Master programs

• Human factors
  • all courses of Bachelor and Master programs of FHW/FWW

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 Simulation
  • Algorithm Engineering
  • Database Concepts

• Lectures are given at Summer or Winter term → Distribute them over 1\textsuperscript{st} and 2\textsuperscript{nd} semester

COMPULSORY
Summer Term — Exemplary Courses

• Introduction to Computer Science for Engineers (if engineering background)

• Principles and Practices in Scientific Working

• Database Concepts (if engineering background)

• Student Conference

• Distributed Control Systems (if computer science background)

• Process Control (if computer science background)
Winter Term — Exemplary Courses

• Introduction to Computer Science for Engineers (if engineering background)

• Principles and Practices in Scientific Working

• Introduction to Simulation

• Electronic Circuits (if computer science background, ask teacher)

• Systems & control (if computer science background, ask teacher)
Choosing Modules to

PLAN YOUR STUDIES
Which Engineering Direction?

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

1. Find modules:
   • Review 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 module descriptions (web pages) AND
   • drop by at the first one or two meetings (if no limits)
   • Make sure you have the background needed to attend the course – ASK the teacher if you are not sure

2. Assign modules you choose to thematic areas
   • Go through the module catalog/module list
3. Write down your plan

4. Update your plan at the end of each semester!
   - What do you have accomplished?
   - Additional courses?
   - Something skipped?
   - It's all fine to skip courses, but you should keep track of what you got ;)

Recommendation: Create a Study Plan (cont’d)
## Personal Plan of Studies

<table>
<thead>
<tr>
<th>Thematic Area</th>
<th>Semester</th>
<th>Module</th>
<th>CP</th>
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<tbody>
<tr>
<td>Fundamentals of Computer Science</td>
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<td>3. ...</td>
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<tr>
<td>Methods of Engineering</td>
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<td>1. ...</td>
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<td>3. ...</td>
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<tr>
<td>Human Factors</td>
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<td>1. ...</td>
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<td>2</td>
<td>2. ...</td>
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Important Notes on Modules

• Each module is initially **optional** ⇒ you are free to choose a module you want (according to the DE master program structure, cf. slide 5)

• After taking the first exam in a module, it becomes **mandatory** ⇒ you need to finish this module!

• Decisions on thematic areas of modules are done when registering for the exam

• Do not place modules in *Additional Achievements (zusätzliche Leistungen)* ⇒ *credits won’t count…never ever!*
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 2

• 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 attended 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.
  • **You have only ONCE the chance to step back from the exam of a course!**
Getting Advice
The ultimate landing page with lots of information goes here…

http://www.inf-international.ovgu.de
Even more (specific) information for Incoming Students

You can get Advice from…

1. Studies Coordinators
   • Prof. Gunter Saake
     Office: G29-110
     E-Mail: saake@iti.cs.uni-magdeburg.de
   • Prof. Sebastian Stober
     Office: G29-007
     E-Mail: stober@ovgu.de
You can get Advice from…

1. Studies Coordinators

2. Coordinator for DE projects
   - Hannah Muth
     E-Mail: hannah.muth@ovgu.de

3. International Relationships and Exchange Coordinator
   - Dr. Claudia Krull
     Office: G29-214
     E-Mail: claudia.krull@ovgu.de
You can get Advice from...

1. Studies Coordinators
2. Coordinator for DE projects
3. International Relationships and Exchange Coordinator
4. Examination Office
   Office: FIN building, room 101/102
   Web: http://www.inf.ovgu.de/pamt.html
5. FaRaFIN
   Email: post@farafin.de
   Web: www.farafin.de
You can get Advice from…

1. Studies Coordinators
2. Coordinator for DE projects
3. International Relationships and Exchange Coordinator
4. Examination Office
5. FaRaFIN
6. Other DigiEng students/Mentors
7. DigiEng Facebook Group
   • https://www.facebook.com/groups/223056807855119/