What is Digital Engineering?
Digital Engineering

= 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:

\[ \sum 120 \text{ CP} \]
\[ \geq 15 \text{ CP (or } \geq 5 \text{ CP*)} \]
\[ \geq 5 \text{ CP (or } \geq 15 \text{ CP*)} \]
\[ \geq 5 \text{ CP} \]
\[ \geq 10 \text{ CP} \]
\[ 6 \text{ CP} \]
\[ \geq 10 \text{ CP} \]
\[ \geq 15 \text{ CP} \]
\[ 12 \text{ CP} \]
\[ 30 \text{ CP} \]

(* 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
Introduction Digital Engineering
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
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
- ....

YOU
choose the courses you want to attend!
Recommendation: Create a Study Plan

Personalized Plan of Studies

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
Recommendation: Create a Study Plan (cont’d)

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 ;)

Personalized Plan of Studies
## Personal Plan of Studies

<table>
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<tr>
<th>Thematic Area</th>
<th>Semester</th>
<th>Module</th>
<th>CP</th>
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<tr>
<td>Methods of Engineering</td>
<td>2</td>
<td>1. ...</td>
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<td>Human Factors</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 – Klaus
  • 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
   • Dr. Sandro Schulze
     Office: G29-109
     E-Mail: sandro.schulze@iti.cs.uni-magdeburg.de
     Web: http://www.dbse.ovgu.de/Mitarbeiter/Assoziierte+Mitarbeiter/Sandro+Schulze.html

2. Coordinator for DE projects
   • Dr. Sandro Schulze
     Office: G29-109
     E-Mail: sandro.schulze@iti.cs.uni-magdeburg.de
     Web: http://www.dbse.ovgu.de/Mitarbeiter/Assoziierte+Mitarbeiter/Sandro+Schulze.html

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/