M.Sc. Computational Engineering

Welcome, Master Students!

Prof. Dr. Harald Köstler
Dr. Felix Schmutterer
M.Sc. Computational Engineering

Agenda

- Welcome by Prof. Dr. Harald Köstler (chair for system simulation)
- Welcome by Dr. Felix Schmutterer (program coordinator)
- Introduction to the study program
- Welcome by FSI CE (student association)
- „Q&A“
M.Sc. Computational Engineering
FAU Erlangen-Nuremberg
Persons in Charge/Contact Persons

Prof. Dr. Dietmar Fey (Program Director)  
(Professor for Computer Architecture)

Prof. Dr. Harald Köstler (Chair for System Simulation)
→ advice for your studies

Dr. Felix Schmutterer (Program Coordinator)
→ advice for your studies  
→ accreditation of coursework achievements  
→ support with formalities

studienberatung-ce@fau.de
• **General Study Advisory** (Informations- und Beratungszentrum, IBZ)
  Elisabeth Bächle-Grosso, Halbmondstr. 6-8, 91054 Erlangen, Room: 1.031
  elisabeth.baechle-grosso@fau.de
  → general study-related problems
  → information about changing your study program (advisor for all engineering programs)
  → student visa issues (certificate for foreigners office)

• **Examinations Office Faculty of Engineering** (Prüfungsamt TechFak)
  Heike Barthelmann, Halbmondstr. 6, 91054 Erlangen
  heike.barthelmann@fau.de
  → managing exams, credits, grades online by „mein campus“ or by paper certificates,
    withdrawal from exams (due to illness etc.)
  → Report on conditional subjects/“Auflagen“!
• **International Office Faculty of Engineering**

  **Christine Mohr**, Erwin-Rommel-Str. 60, 91058 Erlangen

  [christine.mohr@fau.de](mailto:christine.mohr@fau.de)

  ➔ Information about studies/internship abroad
  ➔ General help and support for international students

• **Career Service**

  [career-service@fau.de](mailto:career-service@fau.de) ; [www.career.fau.de](http://www.career.fau.de)

  ➔ Help with your job search (also student jobs)
  ➔ Support with applications
  ➔ Check of application documents
  ➔ Training for job interviews
  ➔ Useful workshops and seminars
Office for Gender and Diversity

Bismarckstraße 6, 91054 Erlangen

gender-und-diversity@fau.de

- Advice for students with children
- Help for students with a migratory background
- Support for women (in cases of violence, harassment)
- Support for students experiencing discrimination of any kind (due to gender, ethnicity, religion, sexual orientation etc.)
• Advice for students with disabilities or chronic diseases

Dr. Jürgen Gündel, Schloßplatz 3/Halbmondstr. 6, 91054 Erlangen, Room: 1.032, juergen.guendel@fau.de

➤ General advice and support (e.g. accessibility of buildings)
➤ Compensation of disabilities during examinations (e.g. more time)

• Psychological support:

Elizabeth Provan-Klotz
Psychologisch-Psychotherapeutische Beratungsstelle
Computer Science Tower, Martensstr. 3, 91058 Erlangen, Room: 04.154
Open consultation (anonymous drop-in sessions)
+49 9131 85-27935
E-Mail: elizabeth.provan-klotz@werkswelt.de
How to find information?

One weblink to rule them all ... 

https://www.ce.studium.fau.eu
https://www.fau.de

...including today’s presentation!
How to find information?

General information on the internet: search the web for “FAU“ + keyword

e.g.  FAU + language courses
      FAU + examinations office
      FAU + psychological services
      FAU + semester dates…
M.Sc. Computational Engineering

Program Structure
Program Structure

- General structure of the master program in CE
  - **Mathematics (Mathematik) [min 20 ECTS].** Mathematics modules for the master program can be taken from CE module catalogue and are offered by the department of applied mathematics and from the different departments of the School of Engineering. The modules must have a mathematical orientation.
  
  - **Computer Science (Informatik) [min 20 ECTS].** The student can select modules from CE module catalogue offered by the Computer Science Chairs for the master program in computer science.
  
  - **Technical Application Field (Technisches Anwendungsfach, TAF) [min 20 ECTS].** In this section the student can select modules from CE module catalogue offered by all master programs of the School of Engineering. The only exception are modules from the department of computer science.
Program Structure

- **General structure of the master program in CE**

- **Seminar [5 ECTS].** The seminar is part of one of the elective subjects mentioned above. Therefore, students can take a seminar of a master program from the department of computer science, the department of applied mathematics or a department of the School of Engineering related to the TAF.

- **Master Thesis (Master-Arbeit) [30 ECTS].** The master’s thesis can be registered at the registrar’s office as soon as the student has successfully collected 70 ECTS point credits.

  The topic of the thesis must be related to subjects studied by the student during the master program. A special thesis advisor is usually assigned to each student. The thesis may involve regular meetings with the thesis advisor and also the participation in a larger research group. It can be written in English. An oral presentation of the results of about 30 minutes as well as a consecutive discussion are obligatory.

Standard Study Plan Master
## Program Structure

<table>
<thead>
<tr>
<th>Module title</th>
<th>SWS (semester hours)</th>
<th>Total ECTS credits</th>
<th>Distribution of workload per semester in ECTS credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mathematics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Funktionalanalyse für Ingenieure</td>
<td>L: 2 T: 2 E: C:</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Optimierung für Ingenieure</td>
<td>3</td>
<td>7.5</td>
<td></td>
</tr>
<tr>
<td>Compulsory elective modules mathematics: Modules from the module catalogue pursuant to Section 40a (4) (min. 7.5 ECTS) (^1)</td>
<td>6</td>
<td>7.5</td>
<td>≥7.5</td>
</tr>
<tr>
<td><strong>Computer science</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compulsory elective modules computer science: Modules from the module catalogue pursuant to Section 40a (3) (min. 20 ECTS) (^1)</td>
<td>12</td>
<td>20</td>
<td>≥20</td>
</tr>
<tr>
<td><strong>Technical application fields (TAF)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compulsory elective modules technical application field: Modules from the module catalogue for the chosen TAF pursuant to Section 40a (5) (min. 20 ECTS) (^1)</td>
<td>12</td>
<td>20</td>
<td>≥20</td>
</tr>
<tr>
<td>Seminar</td>
<td>2</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Master's thesis</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total SWS (semester hours)</th>
<th>Total ECTS credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td>120</td>
</tr>
<tr>
<td>23</td>
<td>30</td>
</tr>
<tr>
<td>8</td>
<td>30</td>
</tr>
<tr>
<td>2</td>
<td>30</td>
</tr>
</tbody>
</table>

The standard progression through the master programme for full-time participants with 30 ECTS per semester.
Please note: An updated version of the catalogue will be published every semester!

https://www.cs.studieum.fau.eu

Keep in mind – some courses might be offered in German and/or English!
Types of Courses

- **V/L**: Vorlesung/lecture – generally no registration, attendance not mandatory
- **Ü/E**: Übung/Tutorium; exercise class/tutorial – usually start in the 2nd week, further details in the 1st lecture, attendance usually not mandatory
- **P**: Praktikum/Practical course (lab course) – attendance mandatory, early registration (see UnivIS)
- **S**: Seminar – attendance mandatory, early registration (see UnivIS)
Types of exams/course achievement

- **Prüfungsleistung (PL)/Graded course achievement (gCA)**
  - schriftlich [written]
  - mündlich [oral]
  - Seminar (presentation and paper)

- **Studienleistung (SL)/Ungraded course achievement (uCA)**
  - e.g. exercise classes or practical courses
  - Hochschulpraktikum/academic laboratory
  - Forschungspraktikum/research laboratory
M.Sc. Computational Engineering

General Information
What is “ECTS”? 

- **European Credit Transfer and Accumulation System**
  Student workload required for the learning outcomes of a program
  - 30 credits: recommended workload per semester
  - 1 credit: ≈ 25-30 working hours (attendance-based learning + self study!)

- You will find information on ECTS in the module catalogs, in the online information system UnivIS, on your Master’s certificate/Transcript of Records
Semesters & Exams

- Regular duration of studies: 4 semesters/two years (can be extended to 5 by re-registering + paying the fee)

- Semester: lecture period (14/15 weeks) + lecture-free period (≈12 weeks)

- Two exam periods: first 2 weeks and last 3 weeks of the lecture-free period (“holidays”)

- Failing an exam: 2\textsuperscript{nd} + 3\textsuperscript{rd} chance in the following two semesters (mandatory registration) – exception: conditional subjects/“Auflagen” (max. 2 chances, i.e. 1 year!)

- You can/must only take exams if you register for them.

- Withdrawal from registered exams: until 3 working days (Mon – Fri) before the exam without a reason – or later in case of illness/severe reasons (medical/other certificate)
Semesters & Exams


Lecture Period: October 18, 2021 – February 11, 2022
Exam Registration: November 30, 2021 – December 13, 2021 (preliminary)
Re-Registration for SS 2022: February 1-8, 2022
Semester break (lecture-free): December 24, 2021 – January 6, 2022
February 12, - March 31, 2022
Exams: February & March / April

www.fau.eu/study/current-students/semester-dates/
Conditional Subjects/“Auflagen”

- Must be passed within **one year**.

  Otherwise, they will prevent successful re-registration for the 3\textsuperscript{rd} semester. **No exceptions!**

- **After successful completion of conditional subjects:**
  
  Actively inform Mrs. Barthelmann (Examinations Office)!

- **Examination results of the 2\textsuperscript{nd} semester might be published late.**
  If this is the case, contact your lecturer to get the results faster.
Foreign Language Training

Sprachenzentrum (Language Center), Bismarckstraße 1; www.sz.fau.de

- Courses during the lecture period are free of cost.
- Intensive courses (with a fee) during the semester break
- Registration is required for all courses.
- Registration for German courses: online (+ in person; open as of now); highly recommended for internships & future job!
- Recommended languages to prepare for studying abroad:
  e.g. English, Spanish, Portuguese

Many of you will want to stay in Germany …
M.Sc. Computational Engineering
The Student Association for Computational Engineering (FSI CE)
Who are we, and what do we do?

- We give information and support regarding your studies, student-life, Erlangen and more.
- We organize different social events like BBQs, Pubnights or Beer-Pong-Tournaments :)
- We offer you a collection of learning materials like for example old exams, books, lecture notes.
- We help you if you have any problems with your professors or studies.
Contact Us

Via E-Mail:  fsi-ce@fau.de

Online:  www.ce.fsi.fau.de

In Our Room:  02.133-113
(Computer Science Building)

Just drop by, because we’re nearly always there …
M.Sc. Computational Engineering
Online Tools
https://youtu.be/IMEg2XEf3ik
IdM portal: www.idm.fau.de
Manage your personal data!

An IdM login is required for nearly all personalized online services at FAU…

- Activate your IdM account with the activation password mailed to you!
- Upload a photo to generate your student ID card – it will be sent to your semester address!
- Problems: service counter/“Service-Theke“ RRZE (Computation Center): next to blue computer science tower (Martensstraße 1), 1st floor
- All important information regarding your studies will be sent to your FAU e-mail address!
Mein Campus: Manage Your Exams!

Login: https://www.campus.fau.de

- “Single Sign-On”

- **Prüfungen (Exams)**
  - Exam registration (when active – registration: November 30, 2021 – December 13, 2021; preliminary)
  - Withdrawal from exams: **three working days** before the exam date (Mon–Fri)
  - Overview of registered exams
  - Overview of grades and acquired ECTS credits
StudOn: Our E-learning platform

Login: https://www.studon.fau.de

- Often used for courses that require registration (seminars, practical courses)
- Platform for sharing course materials
UnivIS and SLOT: Create your timetable

Create your timetable either with UnivIS (https://univis.fau.de) or with SLOT (https://slot.cs.fau.de).

We prepared an exemplary timetable for you, available under https://slot.cs.fau.de/26673/
Slack – Communicate with the FSI and each other

- On our slack channel, you can easily network with other students and your student representatives.
- Just join our Slack Channel and then the room #msc21.
- We will also post information of the Student Association there.
CIP: The Community Computer Pool

Registration: https://account.cip.cs.fau.de/
- Reference system for most of the assignments
- Possible workspaces, seat reservation mandatory via https://www.reserve.cs.tf.fau.de/
- Access to our material collection/Registration via FSI CE

Login: https://remote.cip.cs.fau.de/
M.Sc. Computational Engineering
What's next?
What’s next?

1. **Compile your class schedule** → UnivIS
   
   [https://slot.cs.fau.de/](https://slot.cs.fau.de/)

2. **Register for courses – only if needed (information in UnivIS):**
   usually via StudOn (see registration link on the respective lecture page in UnivIS)
   If registration is not required, simply go the first meeting.

3. **Register for exams** → MeinCampus
What’s next?

4. Re-register for SS 2022 → bank transfer – details via e-mail (t.b.a.)

4. Study & pass exams → study groups, time management, practice with old exams from

4. Actively report on your conditional subjects → Examinations Office (Mrs. Barthelmann)

M.Sc. Computational Engineering

Q&A

It's time for your questions!!!