

Introduction MSc Computational Engineering

Agenda





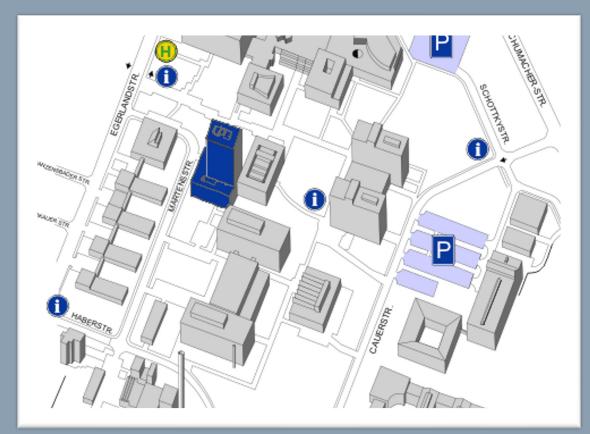
- 1. Welcome by Prof. Dr. Gerhard Wellein (NHR)
- 2. Welcome by Dr. Felix Schmutterer (program coordinator)
- 3. Introduction to the study program
- 4. "BGCE our elite programme" by Tobias Baumeister
- 5. Welcome by FSI CE (student association)
- 6. Introduction to FAU's CIP-pools
- 7. "Q&A"







CS Tower & RRZE



The FAU Tech Campus, CS Department highlighted

Persons in Charge/Contact Persons





Prof. Dr. Dietmar Fey (Program Director)

(Professor for Computer Architecture)

Prof. Dr. Gerhard Wellein

(NHR, High Performance Computing)

Dr. Felix Schmutterer (Program Coordinator)

- advice for your studies (appointments)
- 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

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

Career Service

career-service@fau.de; 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 (Psychologisch-Psychotherapeutische Beratungsstelle)

Elizabeth Provan-Klotz, Computer Science Tower, Martensstr. 3, 91058 Erlangen, Room: 04.154 elizabeth.provan-klotz@werkswelt.de; +49 9131 85-27935

Open consultation (anonymous drop-in sessions)

How to find information?



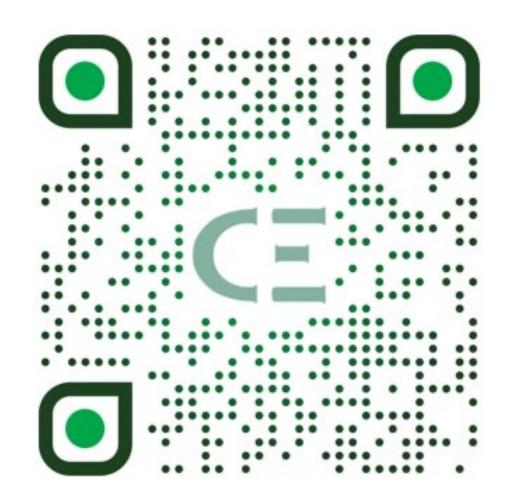


One weblink to rule them all ...

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

- FAU + language courses
- FAU + examinations office
- FAU + psychological services
- FAU + semester dates...





Program Structure

Technische Fakultät

Program Structure





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General structure of the master program in CE

Mathematics [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 [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 (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

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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 [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





| Module title | SWS (semester hours) | | | FCTS | semester in ECTS credits | | | | |
|---|----------------------|----|---|------|--------------------------|-----|-----|-----|-----|
| | L | Т | E | С | credits | 1st | 2nd | 3rd | 4th |
| Mathematics | | | | | | | | | |
| Funktionalanalysis für Ingenieure | 2 | 2 | | | 5 | 5 | | | |
| Optimierung für Ingenieure | 3 | 2 | | | 7.5 | | 7.5 | | |
| Compulsory elective modules mathematics: Modules from the module catalogue pursuant to Section 40a (4) (min. 7.5 ECTS) 1) | 6 | 3 | | | ≥7.5 | | | | |
| Computer science | | | | | | | | | |
| Compulsory elective modules computer science: Modules from the module catalogue pursuant to Section 40a (3) (min. 20 ECTS) 1) | 12 | 8 | 4 | | ≥20 | | | | |
| Technical application fields (TAF) | | | | | | | | | |
| Compulsory elective modules technical application field: Modules from the module catalogue for the chosen TAF pursuant to Section 40a (5) (min. 20 ECTS) 1) | 12 | 8 | 4 | | ≥20 | | | | |
| Seminar | | | | 2 | 5 | 120 | | | |
| Master's thesis | | | | | 30 | | | | 30 |
| Total SWS (semester hours) | 35 | 23 | 8 | 2 | | | | | |
| Total ECTS credits | | | | | 120 | 30 | 30 | 30 | 30 |

Please note: An updated version of the module catalogue will be published every semester!

Module Catalogue

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

The standard progression through the master programme for full-time participants with 30 ECTS per semester.

Standard study plan





Module Catalog – Master Program Computational Engineering

Summer Term 2023

Note that standard study plans for all technical application fields are to be found on the CE website!

General Modules (max. 15 ECTS)

| Module | SWS L+E+S+P | Total ECTS | Language | Exam | Department | Responsible Chair | ws/ss |
|---------------------|----------------|------------|----------|------|------------|-------------------|---------------------------------|
| Programming Project | | 5/10 | | | | | Full list is found in the Campo |
| Seminar | | 5 | | | _ | | Full list is found in the Campo |

Please note: An updated version of the module catalogue will be published every semester!

Module Catalogue

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

The standard progression through the master programme for full-time participants with 30 ECTS per semester.

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
- S: Seminar attendance mandatory, early registration (see Campo)

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





General Information

Technische Fakultät

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, on your Master's certificate/Transcript of Records



Semesters & Exams





- Regular duration of studies: 4 semesters / 2 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: 2nd + 3rd 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





Winter Semester 2023 (October 1, 2023 – March 31, 2024):

Lecture Period: October 16, 2023 – February 9, 2024

Exam Registration: November 20, 2023 – December 10, 2023

Re-Registration for SS 23: February 1-9, 2024

Semester break (lecture-free): December 24, 2023 - January 6, 2024

February 10, 2024 – April 14, 2024

Exams: February & April

www.fau.eu/study/current-students/semester-dates/

https://www.fau.eu/education/study-organisation/re-registration/

Conditional Subjects/"Auflagen"





Must be passed within one year.

Otherwise, they will prevent successful re-registration for the 3rd semester.

No exceptions!

After successful completion of conditional subjects:

Actively inform Mrs. Barthelmann (Examinations Office)!

• Examination results of the 2nd 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:
 - English, Spanish, Portuguese

Many of you will want to stay in Germany ...





Visa and late arrival

The programme supports student to arrive at the university until November.

Please note that FAU is not an online university, some modules might be taught / streamed via zoom.

Please make sure not to miss the exams of your first semester.

As soon as it is clear that you will "miss" the first semester, please make sure to cancel your enrollment and defer your admission to the winter semester.



BGCE – our elite programme

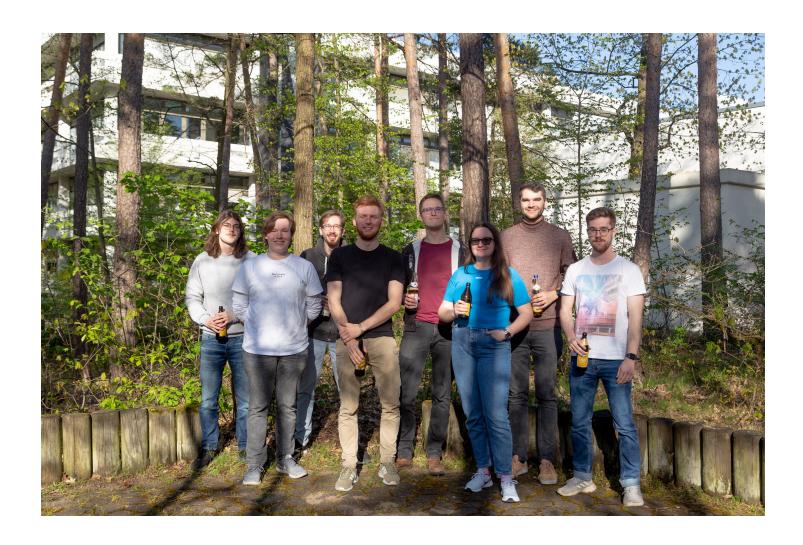


Student Association

Student association

Who we are and what we do





- Support regarding your studies, student-life, Erlangen and more.
- Organize different social events BBQs, Pubnights or Beer-Pong-Tournaments:)
- Offer a collection of additional learning materials
- Help if there are any problems with professors, tutors, studies...

Contact Us



Via E-Mail: <u>fsi-ce@fau.de</u>

Online: www.ce.fsi.fau.de

In Our Room: 02.133-113

(Computer Science Building)

Just drop by, because we're nearly always there ...





Online Tools

IdM portal

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
 - The card will be sent to your <u>semester address!</u>
- 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!



www.idm.fau.de

Campo

Manage Your Exams!



Login via "Single Sign-On"

Exams

- Exam registration (when active registration:
 November 20, 2023 December 10, 2023; preliminary)
- Withdrawal from exams:
 three working days before the exam date (Mon–Fri)
- Overview of registered exams
- Overview of grades and acquired ECTS credits
- Timetable & Documents

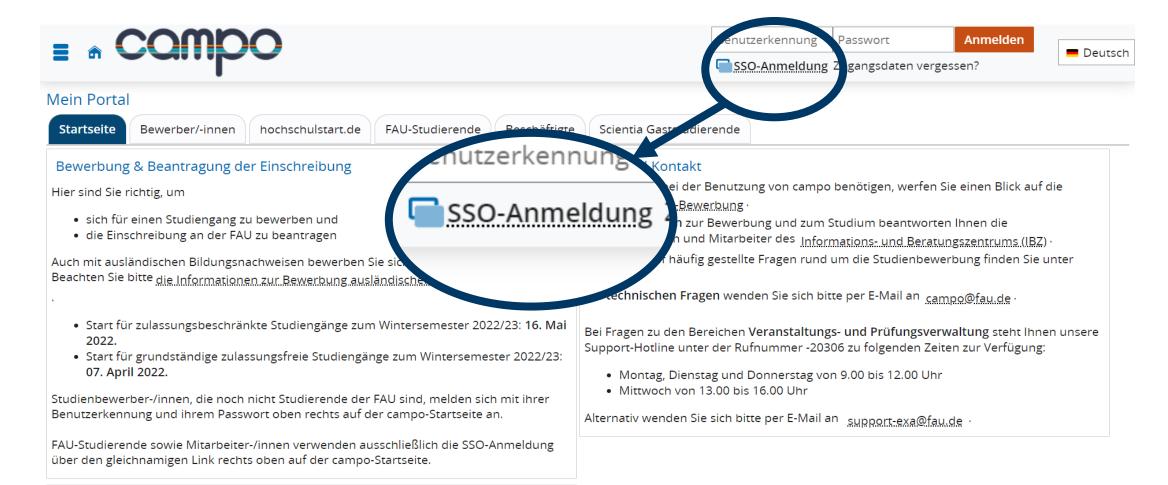
Manuals for student relevant content on campo: click-here



https://www.campo.fau.de



www.campo.fau.de Single Sign-On (SSO)

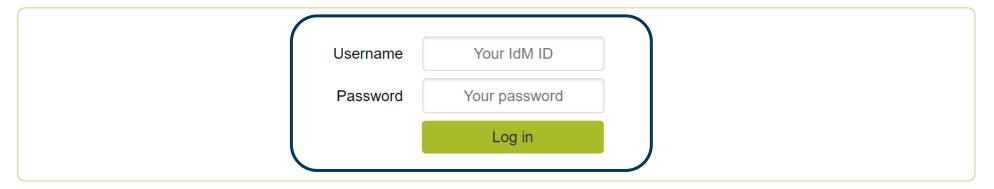








Enter your FAU username and password



You forgot your password?

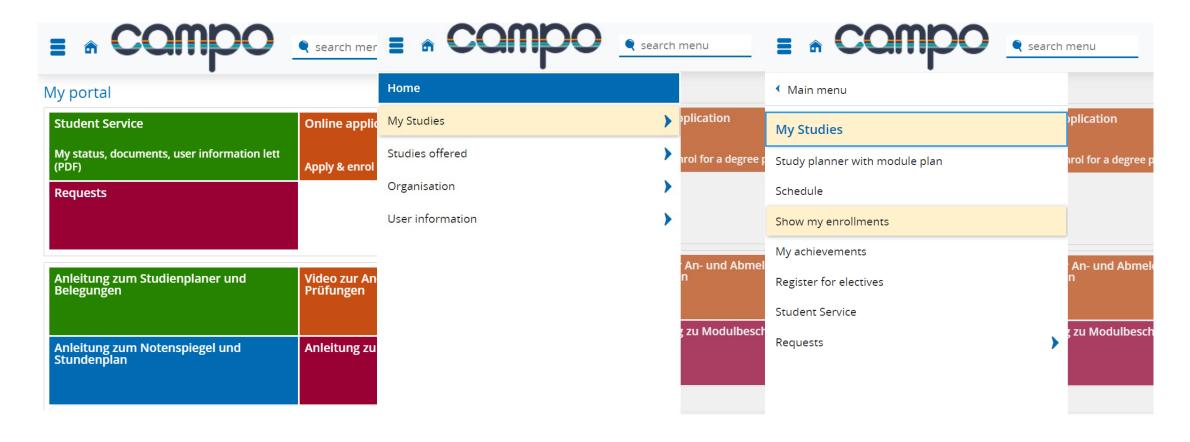
Please follow the link below to start the password recovery process.

Continue with password recovery

For security reasons, please log out and exit your web browser when you are done accessing services that require authentication!



Prüfungen (Exams) - Overview of registered exams Hamburger menu \rightarrow My Studies \rightarrow Show my enrollments





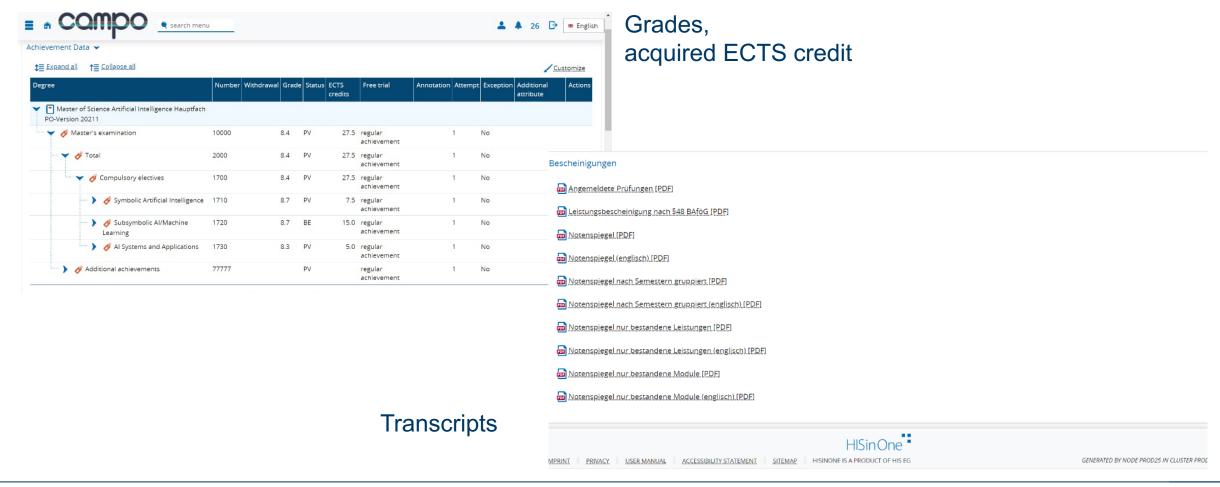
Overview of registered exams and option to withdraw/de-register



3 working days (Mon-Fri) before the exam date!!!

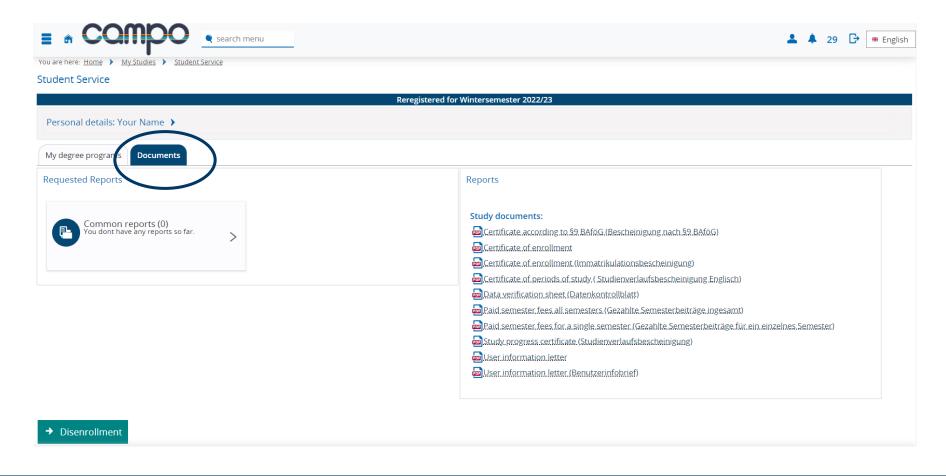


Overview of grades, acquired ECTS credits and Transcripts Hamburger menu \rightarrow My Studies \rightarrow My Achievements





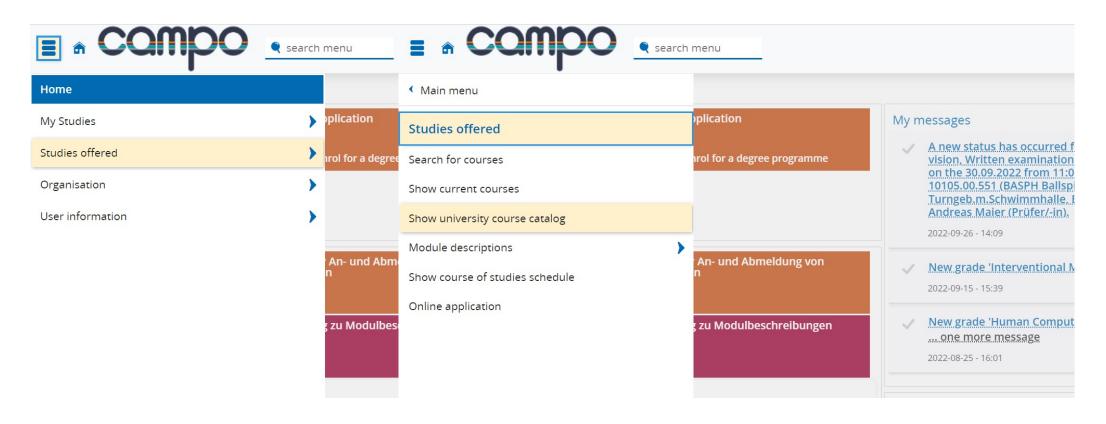
Certificate of enrollment/Immatrikulationsbescheinigung Hamburger menu \rightarrow My Studies \rightarrow Student Service





Compile your class schedule Navigate to the CE Programs course catalogue

Hamburger menu \to My Studies \to Study planner with module plan Hamburger menu \to Studies offered \to Show university course catalogue



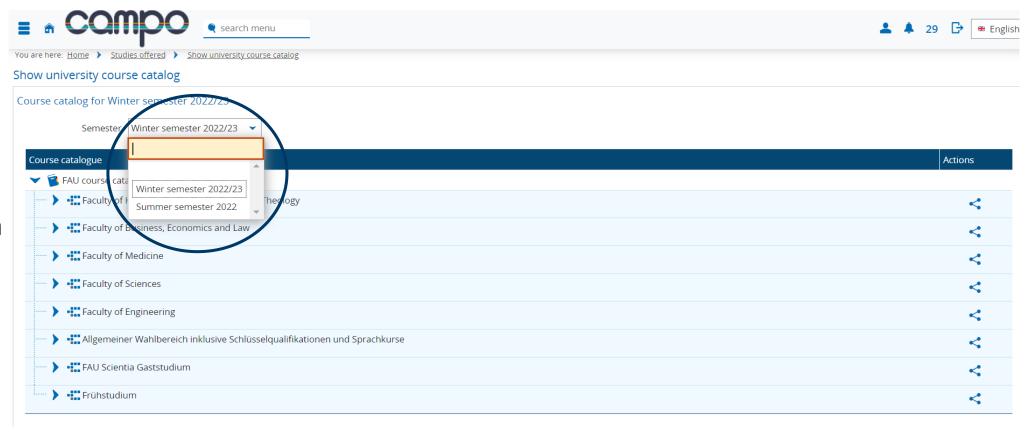


Compile your class schedule

Faculty of Engineering → Computational Engineering → Master ... → Master's examination→Total

Select the semester

Navigate down to the Computational Engineering program





Compile your class schedule

Under the Faculty of Engineering

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Computational Engineering

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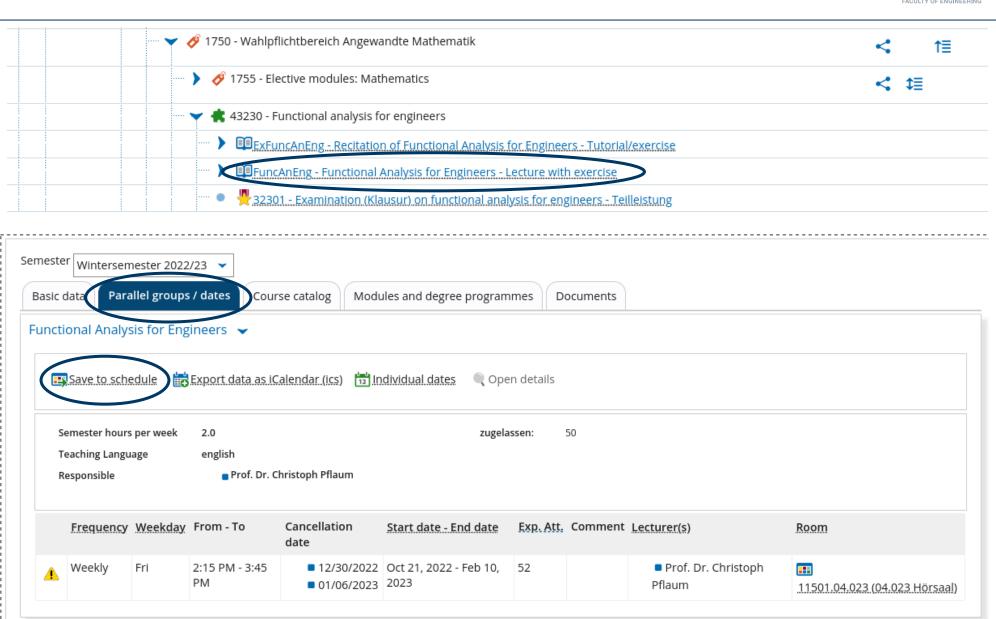




Click on the course lecture/exercise

Click on parallel groups / dates

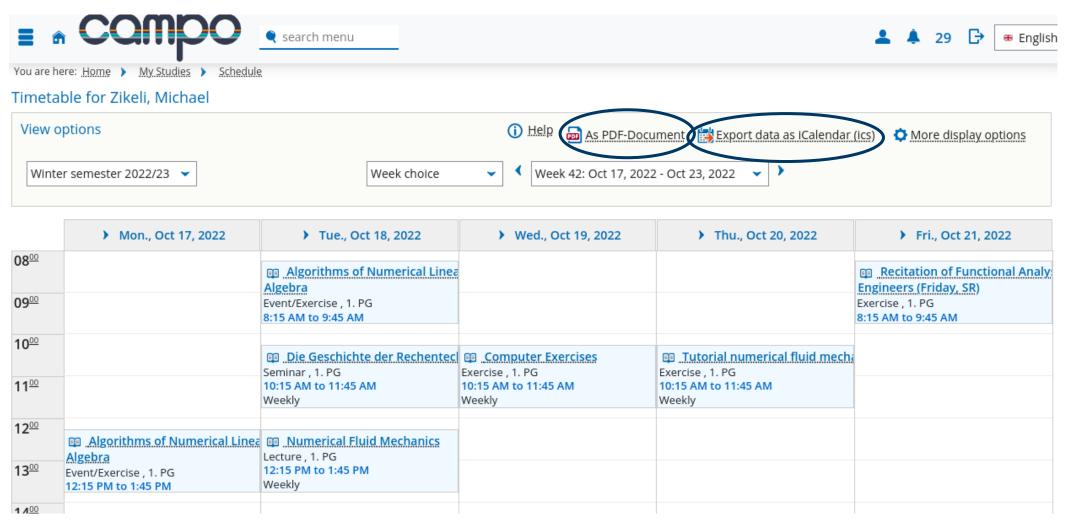
Click on save to schedule





Hamburger menu → My Studies → Schedule

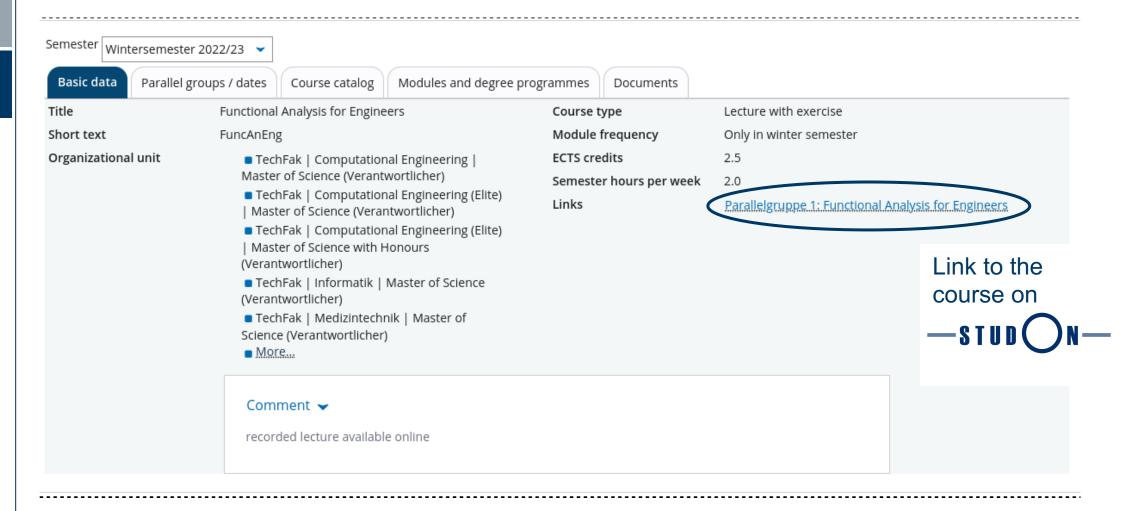
Select the view options to the planned semester and lecture period view



some timetable download / export options as .pdf or .ics



Register for courses



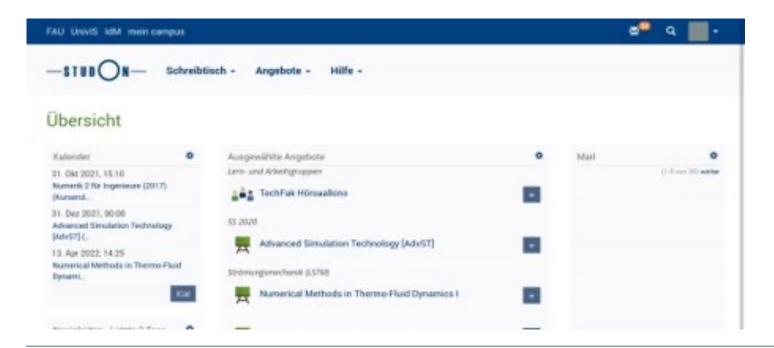
StudOn

Our E-learning platform



Login via "Single Sign-On"

- Often used for courses that require registration (seminars, practical courses)
- Platform for sharing course materials





https://www.studon.fau.de

CIP

The Community Computer Pool



- Registration: https://account.cip.cs.fau.de/
 See QR-Code
- Reference system for most of the assigments
- Access to our material collection
 - Registration via FSI CE (mail or in person)
 - We need your "IdM name"
 - Remote Login:

Available with SSH, Xpra, putty, etc more info and a how-to here



https://account.cip.cs.fau.de/





What's next?

Technische Fakultät

What's next?





1. Compile your class schedule (via Campo)

Manual: click here

2. Register for courses – only if needed (information via Campo):

usually via StudOn (see registration link on the respective lecture page in Campo) If registration is not required, simply go the first meeting.

3. Register for exams (via Campo)

Manual: click here

What's next?





4. Re-register for SS 2023

bank transfer – details via e-mail (t.b.a.)

5. Study & pass exams

study groups, time management, practice with old exams from the FSI

6. Actively report on your conditional subjects

→ Examinations Office (Mrs. Barthelmann)

7. Get your "Deutschland ticket" for public transport

https://www.vgn.de/en/ermaessigungsticket-studi