
Faculty Day April 7th 2022

**Welcome, international students
of Medical Engineering!**

Claudia Barnickel

- **Welcome by Claudia Barnickel**
(Study Coordinator and Advisor of the Medical Engineering program)
- **Introduction to important contact persons and services**
- **General orientation: studying at FAU**
- **Online platforms**
- **Tips & tricks**
- **Your questions**

The Diversity of Medical Engineering at FAU



- **Increase in population and diseases**

- Demographical development until 2050:

More people, longer life expectancy:

- Diabetes: +50%

Dementia: +100%

- Infarction: +100%

Stroke: +100%

- Cancer: +50%

- **Increasing demand for diagnostic and therapeutic treatment**



Introduction to important contact persons and services



- **Director Medical Engineering Program**
(Dep. Artificial Intelligence in Biomedical Engineering)
Prof. Dr. Tobias Reichenbach



- **Central Institute of Medical Engineering (ZiMT): www.zimt.fau.de**



Mariana Méjica
HMDA Coordinator



Dr. Lisa Walter
Grant Coordinator



Victoria Goldberg
Coordinator Sci Fi Program

Claudia Barnickel

Consultation via email, phone, zoom or **in the office (only with previous online registration: study program website → “Infocenter” – “Study Advisory Service”)**

Martensstraße 3 (blue computer science tower)

2nd floor, room 02.158

+49 9131 8567337

studienberatung-medizintechnik@fau.de; Claudia.Barnickel@fau.de



- all kinds of questions regarding your studies
- accreditation of coursework achievements
- support with formalities
- studying abroad (Erasmus+ program)
- help in situations of crisis

www.medtech.fsi.fau.de

= organisation of Medical Engineering students, who...

- collect old exams (great for exam preparation!)
- represent the students' perspective in different committees of the university
- organize parties and other events
- are a good contact if you need informal peer-to-peer advice or just want to meet people from your study program
- **You can also join FSI medtech as a member and help them organize events etc.!**



Contact for *regular* (not exchange) students of Medical Engineering:

Helga Jahreis

helga.jahreis@fau.de



- managing exams, credits, grades online via the Mein Campus portal
- last-minute withdrawal from exams due to illness or other severe reasons (with medical or other certificate!)
- If you were admitted with conditional subjects („Auflagen“): **report to Mrs. Jahreis about the completion of your conditional subjects!**

Contact for *exchange* students of Medical Engineering (depending on your last name):

- (letters A-F): Mottl, Cornelia: cornelia.mottl@fau.de
 - (letters O-Z): Heinrich, Jutta: jutta.heinrich@fau.de
 - (letters G-N): Wachtler, Marion: marion.wachtler@fau.de
-
- managing exams, credits, grades online via the Mein Campus portal
 - last-minute withdrawal from exams due to illness or other severe reasons (with medical or other certificate!)

Elisabeth Grosso

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 Immigration Office)**



Gisela Jakschik



Christine Mohr

tf-stib@fau.de

- General information and advice for (international) students
- Seminars for soft skills
- International partnership programs of the Faculty of Engineering (Non-Erasmus)

career-service@fau.de

www.career.fau.de

- Help with your job search (also student jobs)
- Support with applications
- Professional check of application documents
- Simulation of job interviews
- Useful workshops and seminars



Free of cost – definitely use this service during your studies!

gender-und-diversity@fau.de

- Support for women
- Advice for students with children
- Help for students with a migratory background
- Support for students experiencing discrimination of any kind (due to gender, ethnicity, religion, sexual orientation etc.)



Dr. Jürgen Gündel

juergen.guendel@fau.de

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

What counts as a...

- **disability?** All physical and mental impairments lasting at least 6 months
- **chronic disease?** Illnesses that require at least one medical treatment per quarter over the course of one year

Dipl.-Psych. **Elizabeth Provan-Klotz**, **Psychological Psychotherapist**

Martensstr. 3, Room 04.154
+49 9131 85-27935

elizabeth.provan-klotz@werkswelt.de



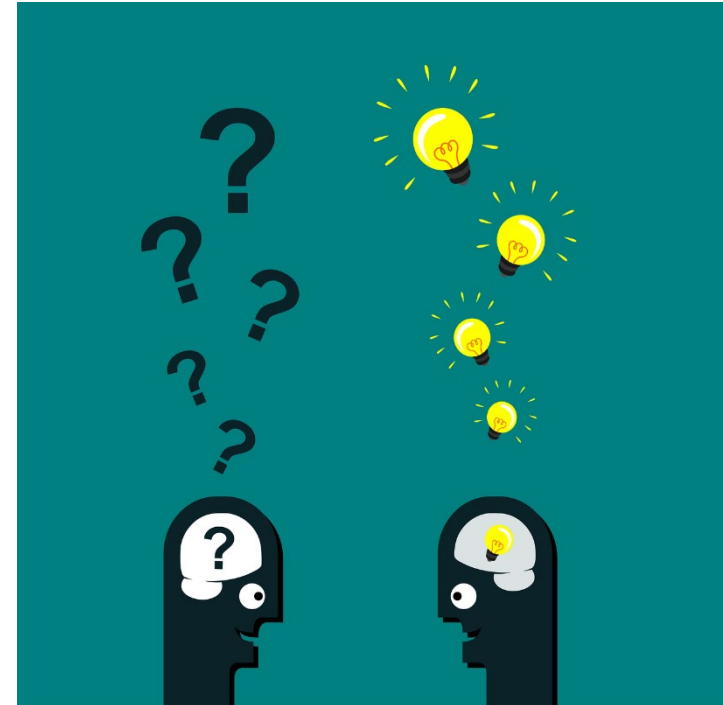
Assistance with:

- Fear of speech, writing and exams
- Difficulties with learning, motivation problems
- Stress management
- Anger and impulse control problems
- Loneliness, depression, feelings of guilt, fears, thoughts of suicide
- Everyday studies with a chronic illness or disability
- Relationship, partner and family problems
- Identity and orientation problems
- Displacement from parents/home country
- Questions about addiction and addictions (e.g. nicotine, alcohol, internet)
- Integration and cultural difficulties

rechtsberatung@werkswelt.de

<https://www.werkswelt.de/rechtsberatung>

- Problems with rental contracts, work contracts, visa status etc.
- **Free of cost!**



Sprachenzentrum (Language Center): www.sz.fau.de

- Courses during the lecture period are **free of cost**.
- Intensive courses (with a fee) during the semester break
- **Registration** required for all courses.
- Registration for **German courses (open as of now): highly recommended for internships & future job!**
- Recommended languages to prepare for studying abroad:
e.g. English, Spanish, Portuguese...
- Courses also suitable for module group **M8 (Free Choice Uni)**
- **All German courses and most other language courses are taught on-site again.**

General orientation: studying at FAU



How to Find Information...

Your **24/7 source** for all medical engineering-related services and information:

- www.medical-engineering.study.fau.eu
- www.medizintechnik.fau.de

...including today's presentation!

How can I get a general idea of the academic system in Germany/about how studying works at FAU?

- Read the **study guide** for Medical Engineering (to be found on the Medical Engineering website).
- Watch the **FAU youtube channel** (many useful videos about student life, cultural differences, student jobs etc.)

I have a concrete question – how do I proceed?

1. Google! 😊 „FAU“ + keyword(s) will get you your result in 95% of all cases.
2. If your question is of organizational/administrative nature (and cannot be resolved by googling) → contact your study advisor.
3. If your question is scientific/related to a specific lecture → contact your lecturer.

- ***European Credit Transfer and Accumulation System***
Assessment of student workload required for the learning outcomes of a program
 - 30 credits: recommended workload per semester
 - 1 credit: \approx 30 working hours
- You will find information on ECTS in the module catalogs, in the online information system UnivIS, on your Master's certificate/Transcript of Records.

Master's Program Medical Engineering: Structure

M1 - Medical Specialisation
Modules (10 ECTS)

M4 - Advanced Seminar
Medical Engineering
(5 ECTS)

M6 – Practical (lab) Modules
(10 ECTS)

M7 – Flexible Budget Faculty
of Engineering (10 ECTS)
(any engineering course on Master's level)

M8 – Free Choice Uni
(5 ECTS)
(any graded course, all faculties)

**M2, M3, M5 = Branches of Study
(20+20+10 ECTS)**



- Medical Electronics (German)
- Medical Production Technology, Device Engineering and Prosthetics (German)
- Medical Image and Data Processing (German or English)
- Health & Medical Data Analytics and Entrepreneurship (English)

M9 – Masters Thesis (30 ECTS)

Master of Science (M.Sc.)

120 ECTS in total

Master Course Scheme



M1	Medizinische Vertiefungsmodule/Medical specialisation modules gemäß § 44a Abs. 1	10
M2	Ingenieurwissenschaftliche Kernmodule/Engineering core modules gemäß § 44a Abs. 2	20
M3	Medizintechnische Kernmodule/Medical Engineering core modules gemäß § 44a Abs. 3	20
M4	Hauptseminar Medizintechnik/Advanced Seminar Medical Engineering gemäß § 44a Abs. 4	5
M5	Medizintechnische Vertiefungsmodule/Medical Engineering specialisation modules gemäß § 44a Abs. 5	10
M6	Medizintechnische Praxismodule/ Medical Engineering practical modules gemäß § 44a Abs. 6	10
M7	Flexibles Budget Technische Fakultät/Flexible budget Faculty of Engineering	10
M8	Freie Wahl Uni/Free choice Uni	5
M9	Masterarbeit/Master's thesis	30
Summe ECTS-Punkte		120

- Total of 120 ECTS credits should be evenly spread over four (or five) semesters; **no strict rule** but **recommended:**
 - ~30 ECTS credits per semester;
- Few compulsory modules (conditional subjects, some mandatory subjects in the catalog, **see footnotes there!**)
- Mostly free choice within the list for each module group
- Not all lectures are offered in winter and summer (see catalog), time slots may differ from semester to semester; there might be time overlaps (refer to video lectures: www.fau.tv)

- *Regular* duration of studies: 4 semesters/two years (can be extended to 5 semesters by re-registering + paying the semester fee), further extensions possible; prerequisite: you pass your conditions in the first year!
- Semester: lecture period (14 or 15 weeks) + lecture-free period ('holidays' ≈ 12 weeks)
- Two exam periods: first 2 weeks and last 3 weeks **of the lecture-free period**
- Failing an exam: **2nd + 3rd chance** in the **following** two semesters (automatic + **mandatory** registration) – **exception: conditions/'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 day without a reason – or later in case of illness/severe reasons (medical/other certificate);

Summer semester 22 (April 1st 2022- September 30th 2022):

Lecture Period: **Apr 25th 2022- Jul 29th 2022**

Exam Registration: **May 27th – Jun 10th 2022**

(Reminder via email!)

Re-registration for summer 2022: **Jul 1st- Jul 8th 2022**

(Reminder via email!)

Semester break (no lectures): **Jul 30th – Oct 16th 2022**

Exam periods: **Aug 1st – Aug 12th & Sep 23rd – Oct 14th 2022**

www.fau.eu/education/study-organisation/semester-dates/

www.fau.eu/education/advice-and-services/examination-offices/examinations-office-faculty-of-engineering/

- **Must be passed within one year (deadline: March 31st 2023)**
Otherwise they will prevent successful re-registration for the 3rd semester.
- **After successful completion of conditional subjects: Actively inform** Mrs. Jahreis (Examinations Office)!
- **Examination results of the 2nd semester might be published late.**
If this is your case, contact Mrs. Jahreis in due time to get a faster correction.
- **The credits of conditional subjects are not part of the 120 credits for your Master’s program but you can use them in M8 (Free Choice Uni) if you wish.**

Lectures are usually offered only once a year in summer semester (SS) or winter semester (WS):

- Grundlagen der Elektrotechnik II: SS
- Algorithmen und Datenstrukturen für MT: WS (exercise classes and exam also in SS)
- Mathematik A3: WS; Mathematik A4: SS; exam also in SS/WS respectively
- Engineering Mathematics: SS
- “Advanced C++ Programming” online course (WS+SS) at the **Virtual University Bavaria (VHB)***: www.vhb.org
→ *Choose study program **“Gesundheitstechnik”** for the registration at VHB.

- V/L: Vorlesung/lecture – generally no registration, attendance not mandatory → **Just attend the first lecture.**
- Ü/E: Übung/Tutorium; exercise class/tutorial – accompany lectures, usually start in the 2nd week, further details in the 1st lecture, attendance usually not mandatory → **Just attend the 1st lecture.**
- P: Praktikum/practical course (lab course) – attendance mandatory, early registration (see UnivIS) – **not relevant/recommended for 1st semester**
- S: Seminar – attendance mandatory, early registration (see UnivIS) – **not relevant/recommended for 1st semester**

- **Prüfungsleistung (PL)/Graded course achievement (gCA)**

- schriftlich [written]
- mündlich [oral]
- Seminar (presentation and paper)

Most of the exams at FAU are on-site exams, very few online exams!

- **Studienleistung (SL)/Ungraded course achievement (uCA)**

- e.g. exercise classes or practical courses
- Hochschulpraktikum/Academic Laboratory (M6.1)
- Forschungspraktikum/Research Laboratory (M6.2)

Module Catalogs

(Available on the Medical Engineering Webpage)

Gruppe	Modulnummer	Module Modulbezeichnung (Veranstaltungsname)	Abkürzung	V+Ü+S+P	Gesamt				Studien- und Prüfungsleistungen	Department	Modulverantwortlicher / Dozent	WS/SS
					WS	SS	WS	SS				

Wahlkatalog	M 1 Medizinische Vertiefungsmodule											
	V+Ü+S+P	10	5	5	0	0	PL					
M 1.1 ¹⁾	Grundlagen der Anatomie & Physiologie für Nichtmediziner	AnaPhys_MI	4+0+0+0	5	2,5	2,5	0	0	60 s	VORKLIN	Prof. Dr. Clemens Forster	WS/SS
	Clinical Applications of Optical Technologies and Associated Fundamentals of Anatomy	OMED/CA	4+0+0+0	5		5			45 s	KLIN	Prof. Dr. med. Michael Eichhorn	SS
M 1.2	Medizinische Vertiefung 1			5	5	0	0	0	60 s	KLIN	N.N.	WS
M 1.3	Medizinische Vertiefung 2			5	0	5	0	0	60 s	KLIN	N.N.	SS
	Liste der Lehrveranstaltungen für M1.2 bzw. M1.3											
	Interdisziplinäre Medizin		0+0+2+0	2	2	0	0	0	45 s		Prof. Dr. med. Harald Mang	WS
	IT-Unterstützung im Prozess der diagnostischen Bildgebung		1+0+0+0	1	1	0	0	0	45 s		Dr. Thomas Kauer	WS
	Grundlagen der biologischen Strahlenwirkung I		2+0+0+0	2,5	2,5	0	0	0	45 s		PD Dr. med. Luitpold Distel	SS
	Grundlagen der biologischen Strahlenwirkung II		2+0+0+0	2,5	0	2,5	0	0	45 s		PD Dr. med. Luitpold Distel	WS
	Grundlagen der Kardiotechnik		4+0+0+0	5	5	0	0	0	90 s		Prof. Dr. med. Harald Mang	WS
	Medizinische Biotechnologie		3+0+0+0	3	0	3	0	0	90 s		Prof. Dr. med. habil. Dr. Grottel / Dr. Grottel / Dr. Grottel	WS

‘Grundcurriculum’/ common catalog (for all branches taught in German)

An updated version is published at the beginning of every semester!

Wahlkatalog	M 1 Medizinische Vertiefungsmodule											
	V+Ü+S+P	10	5	5	0	0	PL					
	Audiologie und Hörgeräte											
	Medizinische Physik der Strahlentherapie											
	Cognitive Neurophysiologie											
	Augendiagnostik											
	Augenoperationen											
	Augenbeteiligung bei Allgemeinerkrankungen											
	Sehnervmorphologie und Echographie in der Augenheilkunde											
M 2 Ingenieurwissenschaftliche Kernmodule												
V+Ü+S+P	20	10	10	0	0	PL						WS/SS
M 2.1	Ereignisgesteuerte Systeme	EGS	2+2+0+0	5	5				90 s	INF	Dr.-Ing. Michael Gieß	WS
M 2.2	Grundlagen der Systemprogrammierung (Systemprogrammierung 1)	GSP (SP 1)	2+2+0+0	5	0	5	0	0	90 s	INF	Prof. Dr.-Ing. Wolfgang Schröder-Preikschat	SS
M 2.3	Digitale Übertragung / Digital Communications	DÜ / DICo	3+1+0+0	5	5				90 s	EEL	Prof. Dr.-Ing. habil. Johannes Huber, Prof. Dr.-Ing. Robert Schober	WS: engl. SS: dt.
M 2.4	Signale und Systeme II	SISY II	2,5+1,5+0+0	5	0	5	0	0	90 s	EEL	Prof. Dr.-Ing. André Kaup	SS
M 2.5	Computergraphik / Computer Graphics	CG	3+1+0+0	5	5				30 m	INF	Prof. Dr.-Ing. Marc Stamminger, Prof. Dr. Günther Greiner	WS
M 2.6	Digitale Signalverarbeitung / Digital Signal Processing	DSV	3+1+0+0	5	5				90 s	EEL	Prof. Dr.-Ing. Walter Kellermann	WS
Aufbaumodule / Advanced Modules (A)												
M 2.7	Pattern Recognition	PR	3+0+0+0	5	5				30 m	INF	Prof. Dr.-Ing. Joachim Hornegger	WS
M 2.8	Pattern Analysis	PA	3+0+0+0	5	5				30 m	INF	Prof. Dr.-Ing. Elmar Noth	SS
M 2.9	Statistische Signalverarbeitung / Statistical Signal Processing	STASIP	3+1+0+0	5	5				90 s	EEL	Prof. Dr.-Ing. Walter Kellermann	SS

Catalog for each branch of study

Website of the Medical Engineering programme:

<http://www.medizintechnik.studium.fau.de/>

→ Studierende → Masterstudium → Überblick und
Modulkataloge **FPO 2019**

<http://www.medical-engineering.study.fau.eu/>

→ Current students → General Study Information Master's
Program → General Study Information & Course
Syllabus **(FPO 2019)**

- Your FPO version remains valid for you throughout your whole studies!
- Module catalogs are updated every semester!
- Please read the footnotes in the catalogs!

What else can I find on the study program website?

<http://www.medizintechnik.studium.fau.de/>

<http://www.medical-engineering.study.fau.eu/>

- **Study Guide (German and English version)**
- **Today's presentation slides**
- Further information: on the Academic Lab & Research Lab, Master's Thesis, studying abroad, accreditation of coursework etc.
- Links to examination regulations (for the Medical Engineering program=FPO, for the Faculty of Engineering: ABMPO)
- Important forms
- **FAQ section**
- News & events

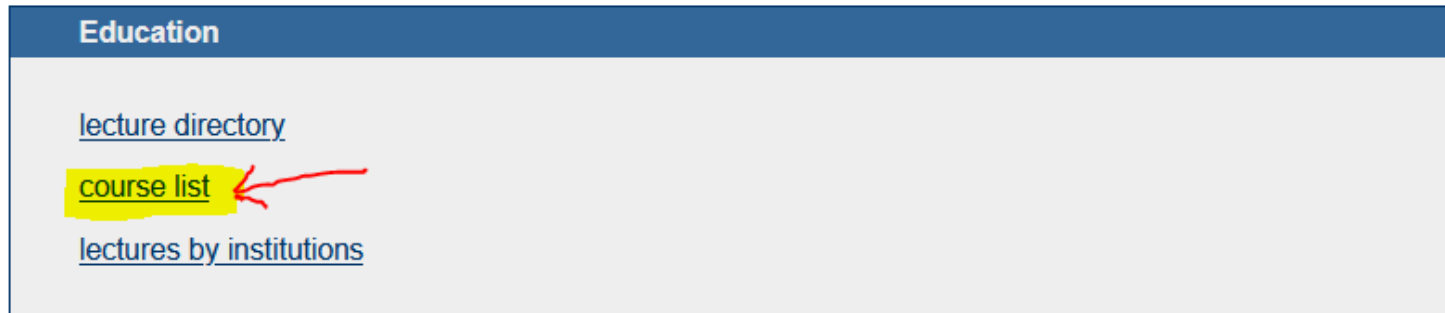
Online platforms



www.univis.fau.de

UnivIS

- All courses for the summer semester with their lecturers, content, time and rooms are listed in UnivIS.



- You can search for all members of FAU by their last name and find their contact details.
- You can look up rooms/lecture halls and find their location on a map/GPS data.
- You can find student jobs in the job offer section („Stellenangebote“, mostly in German).

IdM Portal

Manage your personal data

www.idm.fau.de

IdM-Portal

- An IdM login is required for nearly all personalized online services at FAU.
- Activate your **IdM Portal account** with the activation password mailed to you after enrollement.
- Upload a photo to create your student ID card (FAUcard); **it will be sent to your semester address (in Germany).**
- Problems with FAUcard: card@fau.de
- Problems with IdM account: service counter/‘Service-Theke’
RRZE: rrze-zentrale@fau.de (**in this building, 1st floor**)

IdM Portal

Manage your personal data

www.idm.fau.de



Email address:

- An FAU email address has been generated for you automatically.
- It is used as default recipient for emails from the university.
To relay: IdM Portal → Self Service → Email → Click on the “...”-button → Field “Relay to”
- **All important information regarding your studies (including corona updates) will be sent to your FAU email address!**



- **Login**

- <https://www.campus.fau.de>
- “Single Sign-On”

- **Prüfungen (Exams)**

- Exam registration (two weeks mid-May)
- Withdrawal from registered exams
- Overview of registered exams
- Overview of grades and acquired ECTS credits



Detailed instructions: see Medical Engineering website

- <https://www.studon.fau.de>
- Often used for courses that require registration
- Generally used for sharing course materials



The screenshot shows the StudOn user interface. At the top, there is a navigation bar with the StudOn logo, a search bar, and a user profile icon with the text '» Abmelden'. Below the navigation bar, the main content area is titled 'Übersicht'. A message below the title states: 'Zur Beschleunigung der Anzeige wurden die Seitenblöcke "Kalender", "Nachrichten" und "Aktive Nutzer" standardmäßig ausgeblendet. Sie können sie selbst über das Menü "Aktionen" rechts neben dieser Überschrift wieder einblenden.' The main content area is divided into three columns. The left column is titled 'Nachrichten - Letzte 6 Monate' and contains three items: 'Wiki: Wiki für Korrekturen zum Skript' (dated 20. Jul 2014, 14:42), 'Forum: Studierendenforum' (dated 18. Jul 2014, 15:10), and 'Kurs: Forensische Informatik' (dated 10. Jul 2014, 00:57). The middle column is titled 'Ausgewählte Angebote' and contains four items: 'Vorlesung', 'Übungen', 'Berufspädagogik', and 'Einführung in die Erwachsenen- und Weiterbildung'. Each item in this column has an 'Aktionen' dropdown menu. The right column contains two sections: 'Kalender' with an 'iCal' button and 'Mail' showing '0 Mail(s)'. Each section in the right column also has a gear icon for settings.

Tips and tricks



What's next?

1. **Activate your IdM account:** upload a photo & insert a semester address in Germany.
→ Your FAU card will be sent there!
2. **Relay your FAU email address to your private email address** (in the IdM portal).
3. **Register for courses – only if needed** (only for seminars and lab courses, registration already open, see information in UnivIS):
registration usually via StudOn (see registration link on the respective lecture page in UnivIS)
4. **Regular students: attend the Master Welcome Day Medical Engineering on April 22nd, 08.45 am in this lecture hall!**
5. **Attend courses from April 25th:** If registration is not required, simply look up time and lecture hall and join the first meeting.
6. **Register for exams** → via Mein Campus (**mid-May**, reminder via email)
7. **Regular students: Re-register for the next semester (1st week of July 2022)**
→ bank transfer (reminder and details via email)
8. **Study & pass exams** → study groups, time management, practice with old exams from FSI MedTech, look up content you don't know your own (university library!); get advice from our psychologist if needed

Important health-related info for international students

- If you are not vaccinated with an EU-approved vaccine yet: The **Erlangen vaccination center** offers drop-in sessions and consultation in different languages. → google: “Erlangen vaccination center”.



Important health-related info for international students

Everybody is talking about the covid vaccine (and rightly so), but have you ever heard about tick-borne encephalitis (TBE)? It is very common in Southern Germany and you can easily catch it just by hanging out outside in a park and getting bitten by a tick. Make sure to get vaccinated at any general practitioner's practice! The "tick vaccine" (FSME in German) is covered by your statutory health insurance.



ZECKEN.DE

TBE in Germany

In Germany, tick-borne encephalitis (TBE) is predominantly confined to the south.

Tips & Tricks for successful Studies

1. Be proactive, inform yourself, search online, talk to people.
2. **Read the study guide.**
3. Read the module catalogs on the Medical Engineering website thoroughly (including the footnotes!).
4. If there is a problem, talk to your tutor/lecturer/study advisor/psychologic counselor **as soon as possible.**
5. Engage in campus life (student organizations: <https://stuve.fau.de/en/gruppen/>)
6. Take language classes, find a language buddy: <https://sz.fau.eu/departement-media-autonomous-learning/autonomous-language-learning/tandem/>
7. Build a MedTech network through the workshops, summer schools, hackathons etc. offered/promoted by ZiMT.
8. Organize study groups, whatsapp groups, coffee hours etc.
Connection with fellow students is key!

Questions?



Thank you very much!

**Have a great start of the
semester!**

Stay healthy and connected!