

Welcome Meeting for Master's Students



Faculty of Computer Science and Mathematics Monday, 13 October 2025

Introduction



- Prof. Dr. Gordon Fraser, Dean
- Prof. Dr. Moritz Müller, Dean of Studies
- Prof. Dr. Steffen Herbold, Dean of Studies
- Dr. Robert Offinger, Faculty Manager
- International Team
 Luise Haack, Ashish Ashutosh
 Neha Beru, Pia Schelchshorn
- FSinfo Student Committee
- International and Student Services

Agenda



- Computer Science & Mathematics Professors
- Joint study programme with Charles University Prague
- Study and Examination Regulations:
 - German Language Skills
 - M.Sc. Computer Science
 - M.Sc. Artificial Intelligence Engineering
 - M.Sc. Computational Mathematics
- Course Enrolment and Examinations
- Support for (International) Master's Students
- Questions and Answers



The Faculty **Computer Science**



Prof. Dr. Michael Granitzer Data Science



Prof. Dr. Joachim Posegga IT Security



Scalable Database Systems



Prof. Dr. Dirk Sudholt Algorithms for Intelligent Systems



The Faculty Computer Science







Prof. Dr. Florian Lemmerich *Applied Machine Learning*







The Faculty Computer Science



Prof. Dr. Hermann de Meer Computer Networks & Communication



Prof. Dr. Matthias Kranz Embedded Systems

Prof. Dr. Stefan Katzenbeisser Computer Engineering





Prof. Dr. Ignaz Rutter

Theoretical Computer Science



The Faculty Computer Science







Prof. Dr. Harald Kosch

Distributed Information Systems







Prof. Dr. Steffen Herbold Al Engineering



The Faculty Mathematics

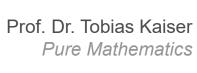


Prof. Dr. Matthias Brandl Didactics of Mathematics

Prof. Dr. Tomas Sauer Digital Image Processing



Prof. Dr. Fabian Wirth Dynamical Systems







The Faculty Mathematics



Prof. Dr. Thomas Müller-Gronbach Stochastics and Its Applications



Prof. Dr. Brigitte Forster-Heinlein *Applied Mathematics*



Prof. Dr. Martin Kreuzer Symbolic Computation

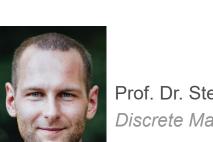




The Faculty **Mathematics**



Prof. Dr. Joscha Prochno Functional Analysis



Prof. Dr. Stefan Glock Discrete Mathematics









Prof. Dr. Tobias Harks *Mathematical Optimisation*





New Joint Double-Degree





Charles University Prague – University of Passau:

Computer Science — Software & Data Engineering

Prof. Dr. Stefanie Scherzinger, UPA

Doc. RNDr. Irena Holubová, Ph.D.

Universität Passau 12

German Language



Basic German-Language Skills

If you did not have proof of basic German-language skills when you enrolled in the programme, you are required to complete a compulsory German course at level A1 (CEFR) at the University of Passau's Language Centre during the first year of study (proof necessary after your second semester, at the latest). Participation in higher-level German-language courses is strongly encouraged!



Study and Examination Regulations





About the Programme: Structure



- You can put together your individual curriculum
- All offered modules and courses (but compulsory seminar and presentation of master's thesis) are assigned
 - to one respective focus area or
 - to the "General Area"
- The focus area in which you accumulate the most credits will be your specialization (cannot be the "General Area")
- Language restrictions: some focus areas contain a number of German-taught modules. If
 you improve your German-language proficiency to an extent that you can follow the courses
 taught in German (English-language answers are usually accepted in examinations), you will
 have the full range of choices in this degree programme

Computer Science: Focus Areas



Focus Areas:

- 1. Information and Communication Systems
- 2. IT Security and Reliability
- 3. Intelligent Technical Systems
- 4. Programming and Software Systems
- 5. Algorithmics and Mathematical Modeling

Acceptability of courses for credit transfers:

https://www.fim.uni-passau.de/en/study/acceptability-for-credit-transfers

Computer Science: Degree Requirements



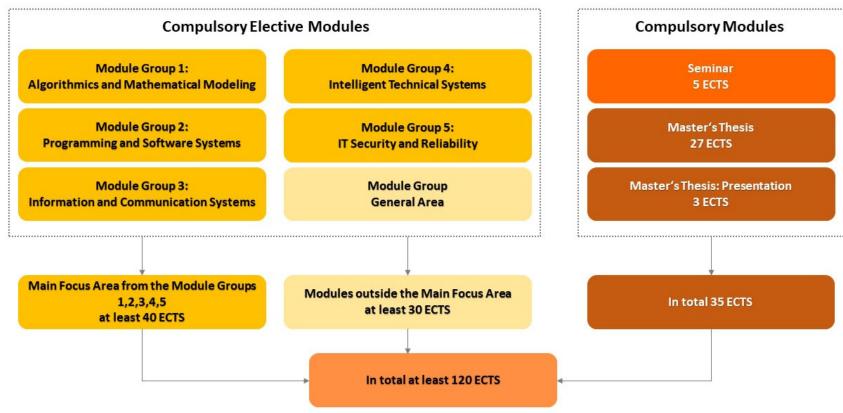
www.uni-passau.de/en/msc-computer-science (cf. Infosheet)

To obtain the degree, you need to accumulate **120 credits** as follows:

- **30 credits for the thesis**, supervised by a professor (typically in the field of your specialisation, usually at the end of your studies)
- A minimum of 40 credits from your specialisation modules (in the chosen focus area)
- A minimum of 30 credits from modules outside your specialisation (from other focus areas or from "General Area")
- One **seminar** (5 credits, typically in the field of your specialisation)
- For the remaining 15 credits, you are **completely free in your choice** of credits (from your specialisation or from any other focus area – including the "General Area" - but only within the programme)
- German-language skills at level A1 (minimum)

Computer Science: Degree Requirements





Note AStuPO § 9 paragraph 3 sentence 1) and 2)

¹ By the end of the secons semester, proof of successful completion of module examinations totalling at least 30 ECTS credits must be submitted.

² If this requirement is not met, a total of at least 40 ECTS credits must be demonstrated by the end of the second semester at the latest.

Compulsory Modules



Seminars

- Aim: specialisation on a research topic and preparation for master's thesis
- Not in the 1st or 2nd semester, recommended in the 3rd semester or later
- Presentation of seminars offered in the next semester at an event toward the end of every semester (Stud.IP event 6030 in each corresponding semester)
- Limited number of participants
- Max. 3 attempts: 3rd fail ultimately irrecoverable (exmatriculation)

Master's Thesis & Presentation

- Usually at the end of your studies (at least 70 ECTS required)
- Typically in the field of your specialisation
- Look for potential topics on the pages of the chairs and professorships: www.fim.uni-passau.de/en/study/theses
- Maximum duration of 6 months for the completion of the thesis (from the day of the supervisor's confirmation of acceptance until the due date)
- Max. 2 attempts: 2nd fail ultimately irrecoverable (exmatriculation)

Examples for Individual Curricula



Sample Curriculum 1, M.Sc. Computer Science	
 Scaling Database Systems (6 credits) Introduction to Deep Learning (6 credits) Management of Scientific Data (6 credits) Data Science Lab (6 credits) Multimedia Databases (7 credits) Advanced Topics in Data Science (5 credits) Energy Informatics II (6 credits) Total: 42 (≥40) credits	Outside your specialisation: Algorithmics and Mathematical Modelling Distributed Algorithms (6 credits) Computer Algebra (9 credits) Intelligent Technical Systems Data Visualization (6 credits) IT Security and Reliability Security Insider Lab I – Infrastructure Security (12 credits) Advanced IT Security (6 credits) General Area Internship (4 credits) Total: 43 (≥30) credits
Master seminar: 5 credits Overall Total: 120 (≥120) credits	Thesis: 30 credits
Overall Total. 120 (±120) credits	

Examples for Individual Curricula



Sample Curriculum 2, M.Sc. Computer Science	
 Specialisation: focus area IT Security and Reliability System Security (5 credits) Security Insider Lab I (12 credits) Wireless Security (5 credits) Hardware-oriented Security (6 credits) Secure Information Flow (6 credits) Advanced Security Engineering Lab (12 credits) Advanced IT Security (6 credits) Total: 52 (≥40) credits	 Outside your specialisation: Information and Communication Systems Scaling Database Systems (6 credits) Energy Informatics II (6 credits) Introduction to Deep Learning (6 credits) Advanced Topics in Data Science (5 credits) Multimedia Databases (7 credits) Management of Scientific Data (6 credits) Total: 36 (≥30) credits
Master seminar: 5 credits	Thesis: 30 credits
Overall Total: 123 (≥120) credits	

Study and Examination Regulations





UNIVERSITÄT PASSAU

Al Engineering: Focus Areas



Focus Areas:

- 1. Algorithmic Engineering und Mathematical Modelling (AEMM)
- 2. Artificial Intelligence Methods (AIM)
- 3. Artificial Intelligence Systems Engineering (AISE)
- 4. Artificial Intelligence Applications (AIA)
- 5. Cross-Cutting Concerns (CCC)
- 6. Research Seminars (RS)

Acceptability of courses for credit transfers:

https://www.fim.uni-passau.de/en/study/acceptability-for-credit-transfers

Al Engineering: Degree Requirements



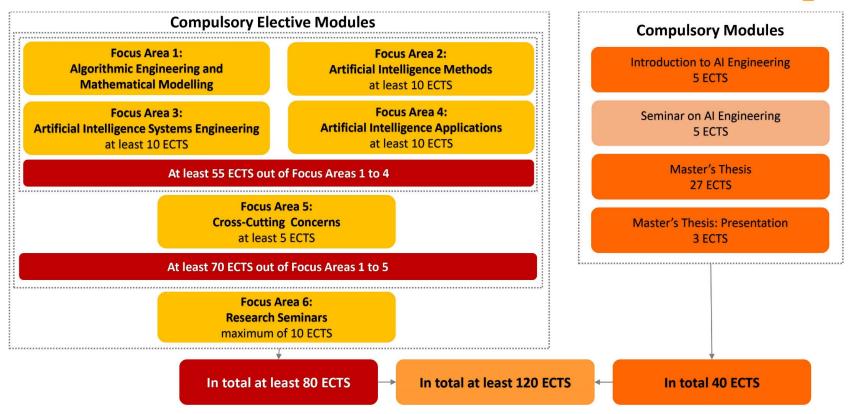
www.uni-passau.de/en/msc-ai-eng (cf. Infosheet)

To obtain the degree, you need to accumulate **120 credits** as follows:

- 30 credits for the thesis, supervised by a professor
- 5 credits for the core module "Introduction to Al Engineering"
- A minimum of 70 credits from all focus areas except RS
- A minimum of 55 credits from the focus areas AEMM, AIM, AISE, AIA and in doing so
 - A minimum of 10 credits from AIM
 - A minimum of 10 credits from AISF
 - A minimum of 10 credits from AIA
 - A minimum of 5 credits from CCC
- A maximum of 10 credits from the focus area RS
- One compulsory seminar (not in the first semester)
- German-language skills at level A1 (minimum)

Al Engineering: Degree Requirements





Note AStuPO § 9 paragraph 3 sentence 1) and 2)

¹ By the end of the secons semester, proof of successful completion of module examinations totalling at least 30 ECTS credits must be submitted.

² If this requirement is not met, a total of at least 40 ECTS credits must be demonstrated by the end of the second semester at the latest.

Examples for Individual Curricula



Sample Curriculum 1, M.Sc. Al Engineering

AEMM (Focus Area 1)

- Parameterized Algorithms (6 credits)
- Computational Logic (7 credits)

Total (AEMM): 13 credits

AIM (Focus Area 2)

- Learning Theory (9 credits)
- Data Science Lab (6 credits)
- Introduction to Deep Learning (6 credits)

Total (AIM): 21 (≥10) credits

AISE (Focus Area 3)

- Scaling Database Systems (6 credits)
- Al Engineering Lab (7 credits)

Total (AISE): 13 (≥10) credits

AIA (Focus Area 4)

- Computational Linguistics (6 credits)
- Multimedia Databases (7 credits)

Total (AIA): 13 (≥10) credits

CCC (Focus Area 5)

- IT Security Law (5 credits)
- Organizational and Competitive Strategy (5 credits)

Total (CCC): 10 (≥5) credits

RS (Focus Area 6)

- Research Seminar I (5 credits)
- Research Seminar II (5 credits)

Total (RS): 10 (≤10) credits

In total (AEMM, AIM, AISE, AIA): 60 (≥55) credits

In total (AEMM, AIM, AISE, AIA, CCC): 70 (≥70) credits In total (AEMM, AIM, AISE, AIA, CCC, RS): 80 (≥80) credits

Master seminar: 5 creditsIntroduction to AIE: 5 creditsThesis: 30 creditsOverall Total: 120 (≥120) credits

Examples for Individual Curricula



Sample Curriculum 2, M.Sc. Al Engineering

AEMM (Focus Area 1)

- Computational Logic (7 credits)
- Parametrized Algorithms (6 credits)
- Randomised Algorithms (7 credits)

Total (AEMM): 20 credits

AIM (Focus Area 2)

- Data Science Lab (6 credits)
- Advanced Topics in Data Science (5 credits)
- Applied Artificial Intelligence Lab (6 credits)

Total (AIM): 17 (≥10) credits

AISE (Focus Area 3)

- Advanced IT Security (6 credits)
- Search-Based Software Engineering (5 credits)
- Scaling Database Systems (6 credits)

Total (AISE): 17 (≥10) credits

AIA (Focus Area 4)

- Energy Informatics II (6 credits)
- Computational Statistics Regression in R (3 credits)
- Econometric Methods (5 credits)

Total (AIA): 14 (≥10) credits

CCC (Focus Area 5)

- Fundamentals of Digitalization and Digital Trends (5 credits)
- Strategy for High-Tech Startups (5 credits)

Total (CCC): 10 (≥5) credits

RS (Focus Area 6)

Research Seminar I (5 credits)

Total (RS): 5 (≤10) credits

In total (AEMM, AIM, AISE, AIA): 68 (≥55) credits

In total (AEMM, AIM, AISE, AIA, CCC): 78 (≥70) credits In total (AEMM, AIM, AISE, AIA, CCC, RS): 83 (≥80) credits

Master seminar: 5 creditsIntroduction to AIE: 5 creditsThesis: 30 creditsOverall Total: 123 (≥120) credits

Study and Examination Regulations





Computational Mathematics: Focus Areas



Focus Areas:

- 1. Algebra, Geometry and Cryptography (AGC)
- 2. Mathematical Logic and Discrete Mathematics (MLDM)
- 3. Analysis, Numerics and Approximation Theory (ANAT)
- 4. Dynamical Systems and Optimization (DSO)
- 5. Stochastics, Statistics (SS)
- 6. Data Analysis and Data Management and Programming (DADMP)
- 7. Applications (A)
- 8. Key Competencies and Language Training (KCLT)

Acceptability of courses for credit transfers:

https://www.fim.uni-passau.de/en/study/acceptability-for-credit-transfers

Computational Mathematics: Degree Requirements



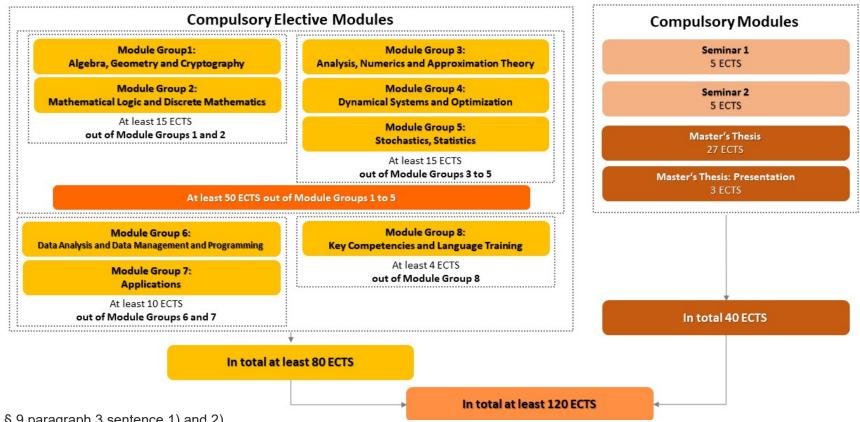
www.uni-passau.de/en/msc-compmaths (cf. Infosheet)

To obtain the degree, you need to accumulate **120 credits** as follows:

- 30 credits for the thesis, supervised by a professor
- A minimum of 50 credits from the focus areas AGC, MLMD, ANAT, DSO, SS and in doing so
 - A minimum of 15 credits from AGC, MLMD
 - A minimum of 15 credits from ANAT, DSO, SS
- A minimum of 10 credits from the focus areas DADMP, A
- A minimum of 4 credits from the focus area KCLT
- Two **seminars** (5 credits each, not in the first semester)
- For the remaining 16 credits, you are completely free in your choice of courses
- German-language skills at level A1 (minimum)

Computational Mathematics: Degree Requirements





Note AStuPO § 9 paragraph 3 sentence 1) and 2)

¹ By the end of the secons semester, proof of successful completion of module examinations totalling at least 30 ECTS credits must be submitted.

² If this requirement is not met, a total of at least 40 ECTS credits must be demonstrated by the end of the second semester at the latest.



Note AStuPO § 9 paragraph 3 sentence 1) and 2)

- ¹ By the end of the secons semester, proof of successful completion of module examinations totalling at least 30 ECTS credits must be submitted.
- ² If this requirement is not met, a total of at least 40 ECTS credits must be demonstrated by the end of the second semester at the latest.

examinations totalling at least 20 ECTS credits must be submitted. emonstrated by the end of the second semester at the latest.

Example for an Individual Curriculum



Sample Curriculum, M.Sc. Computational Mathematics	
 AGC, MLMD Cryptanalysis (9 credits) Cryptography (9 credits) Mathematical Logic (9 credits) Total (AGC, MLMD): 27 (≥15) credits 	 DADMP, A Efficient Algorithmus (7 credits) Randomised Algorithms (7 credits) Introduction to Deep Learning (6 credits) Total: 20 (≥10) credits
 ANAT, DSO, SS Operator Theory (9 credits) Functional Analysis (9 credits) Learning Theory (9 credits) Total (ANAT, DSO, SS): 27 (≥15) credits In total (AGC, MLMD, ANAT, DSO, SS): 54 (≥50) credits 	 KCLT Deutsch als Fremdsprache (5 credits) Management of international projects (1 credit) Total: 6 (≥4) credits
Master seminar 1: 5 credits	Master seminar 2: 5 credits
Thesis: 30 credits	Overall Total: 120 (≥120) credits

Additional Study Regulations



(applicable in all master's degree programmes)

- Academic progress: requirement to accumulate at least 30 ECTS points after the second semester or 40 ECTS points after the third semester
 - > Failure to do so will inevitably lead to exmatriculation
- Plagiarism assessment: declaration of consent with screening of written work (e.g., use of anti-plagiarism software)
 - > Zero tolerance for plagiarism (improper citation of sources/authors and origins of copyrighted material/images etc.) or cheating in examinations

Violations will result in course failure or expulsion from the programme!

Course Enrolment and Examinations



Stud.IP

- Sign up only for courses you really intend to take
- Crucial for adequate allocation of resources (suitable lecture halls etc.)
- You should enroll for both lecture (V) and exercise (Ü)

Examinations

- EXA (Campus Portal) examination registration is binding!
- Specific sign-up periods for each faculty, announced each semester by the Examinations Office
- Exceptions in cases of hardship must be reported to the Board of Examiners immediately (before examinations)

PDF-Infosheet of your degree programme





www.uni-passau.de/en/degrees





FIM Technical Support

General overview of FIM IT services: https://www.fim.uni-passau.de/en/it-services/

First Steps - A guide to using the FIM IT services for beginners:

https://www.fim.uni-passau.de/en/it-services/login-and-account/first-steps/

Create a FIM account to get access to the FIM IT services (for instance FIM lab PCs):

https://www.fim.uni-passau.de/en/it-services/login-and-account/fim-accounts/

Support for International Master's Students



International Student Assistants

Reach out to us with questions regarding your study organization, course selection, challenges, etc.

E-Mail: mahelp@fim.uni-passau.de







Faculty's Student Committee (FSinfo)

We support you in your studies, represent you in university committees, collect and provide old exams, and keep you informed about important dates and deadlines.







Please don't hesitate to approach us in case you face any problems or open questions regarding your studies!

Office: IM 244

Phone: 0851/509-3004

Mail: fsinfo@fim.uni-passau.de

Homepage: https://fsinfo.uni-passau.de

Stud. IP: https://fsinfo.uni-passau.de/studip

Chat: https://fsinfo.uni-passau.de/chat



Stabsstelle Diversity und Gleichstellung



Join the STEM Women's Network (MINT-Frauennetzwerk) at the University of Passau

Why connect?

Exchange with fellow female students & inspiring role models

What does the network offer?

Informal meetups & events

Networking opportunities
Info on scholarships & calls for applications

Who can join?

🤱 All women in STEM

How to stay informed?

LinkedIn: MINT-Frauennetzwerk der Universität Passau

Stud.IP: MINT Frauennetzwerk

Instagram: @diversity.uni.passau

Homepage: www.uni-passau.de/mint-frauennetzwerk





A WARM WARM WARM THE INTERNATIONAL SUPPORT SERVICES

Eva Manetzgruber and Barbara Bauersachs with Valeria, Fernanda, Judith & Mira



International Support Services

Eva Manetzgruber and Barbara Bauersachs



iStudi Coach

for international degree seeking students istudicoach@uni-passau.de Instagram: @unipassau.international

Welcome Centre

for international researchers, lecturers and PhD students researchmobility@uni-passau.de

Your residence permit and city registration

UNIVERSITÄT PASSAU

Services Offered by International Support Services

DOCUMENT PRE-CHECK SERVICE FOR YOUR APPLICATIONS TO THE IMMIGRATION OFFICE

Weekly - every Tuesday afternoon

Find a list of necessary documents and book your timeslot via Eva Manetzgruber's Stud.IP profile.

If you have questions, please send an email to istudicoach@uni-passau.de



Social Networking Opportunities

Offered by International Support Services



ALL YOU CAN DO - THE UNIVERSITY'S HOLISTIC ENGAGEMENT PROGRAM

Make new friends, feel at home in Passau, do something meaningful – and learn German!

Join fellow students from around the world in local volunteering projects.

Registration deadline: October 19

Sign up here: https://www.uni-passau.de/studium/campus-und-kultur/all-you-can-do-aycd/was-ist-all-you-can-do

GENERATIONENCAFÉ – MEET LOCALS, SHARE EXPERIENCES

Join relaxed breakfast meetings and shared activities with locals and other international students.

Practice your German, build friendships, and learn from each other – across cultures and generations.

Updates on Instagram: @allyoucando.unipassau

OR Subscribe to the Generationencafé newsletter: allyoucando@uni-passau.de

HAPPY CAFÉ (NEW!) - YOUR MONTHLY WELCOME MEET-UP!

Connect with other international newbies and students in higher semesters, ask questions, and get settled.

Monthly events – details coming soon

Instagram: @unipassau.international

OR subscribe for *Happy Café* Newsletter: <u>allyoucando@uni-passau.de</u>

Upcoming Career and Softskills Events



Our Recommendations for FIM students



- Saurabh Kumar completed his M.Sc. in Computer Science and has worked across England, Spain, India, and Germany. His professional journey includes roles at Vodafone, msg systems, Munich Re, and currently NTT Data DACH.
- He specializes in testing, machine learning and platform development. His most exciting challenge so
 far has been designing the architecture for a machine learning pipeline.
- Now based in Germany, he works as a Lead IT Consultant at NTT Data DACH, focusing on platform
 engineering and cloud development using AWS and Infrastructure as Code.

Wednesday, 5 November 2025
6:00 pm - 8:00 pm
In cooperation with
Online via Zoom
Speaker: Saurabh Kumar
Stud.IP: 6:5012 W

To participate in the webinar, registration in Stud.IP is required.

The access link will be announced in the course shortly before the

www.uni-passau.de/zkk in ZKK Uni Passau 🖒 zkk_unipassau

Zukunft: Karriere und Kompetenzen

Networking for Your Career

at Abends in der Uni/An evening at the University, 22 October, 19:15, ZB Lernraum, ground floor, (the event starts at 5 p.m. and offers further content in English)

65012 W Berufe im Profil international: Lead IT Consultant - from Machine Learning to DevOps

Termine am Mittwoch, 05.11.2025 18:00 - 20:00, Ort: (online)

65202 The essentials for your career in Germany

Dates on Tuesday, 28.10.2025 18:00 - 20:00, Room: (ITZ) SR 002

65204 Your application for Germany: CVs

Dates on Friday, 07.11.2025 14:00 - 18:00, Room: (WIWI) SR 033

65205 Your application for Germany: cover letters

Dates on Friday, 14.11.2025 14:00 - 18:00, Room: (WIWI) SR 029

65206 Your application for Germany: job interview training

Dates on Friday, 09.01.2026 14:00 - 18:00, Room: (WIWI) SR 029

Campus meets Company 24th of November 2025

Academic Advice Service/ Studienberatung



We offer individual consultations and can support you with topics such as:

- General questions or difficulties during your studies –
 for example, if you realize you may not reach the required
 30 ECTS credits by the end of your second semester
- Questions about organizing your degree programme
- Support with decision-making when you're feeling stuck

Our service is independent, free of charge, and we are not involved in grading.

www.uni-passau.de/en/academic-advice



Academic Adjustments / Nachteilsausgleich



Academic adjustments are special accommodations that compensate for disadvantages resulting from a candidate's disability, chronic illness, or mental health condition. Examples:

- Extension of deadlines
- Extra time for oral and written examinations, deadline extensions for term papers, theses and dissertations
- Change of exam type: oral exam instead of written exam or vice versa;
 individual examination instead of group examination

www.uni-passau.de/en/disability-support/academic-adjustments



Contacts at the University of Passau



- Academic Advice Service
 www.uni-passau.de/en/academic-advice
- Student Disabilities Officer

Dr. Ulrike Bunge www.uni-passau.de/en/disability-support/

Psychological-Psychotherapeutic Counselling Centre

Dr. Lisa Huber-Flammersfeld
Tanja Obermüller
www.uni-passau.de/en/psychological-counselling

Administration building, Innstraße 41, 1st floor





