

Universität Stuttgart

Stefanie Anstein student advisor

WELCOME to the program Master of Science *Computer Science*

March 2024

Overview





General responsibilities

 Dean of the study programs: Prof. Dr. Andrés Bruhn Responsible for the organization of all study programs of the department https://www.vis.uni-stuttgart.de/en/institute/team/Bruhn-00001



 Head of the examination board of the program M.Sc. Computer Science: Prof. Dr. Melanie Herschel Responsible for deadline extensions, registration withdrawals, etc. https://www.f05.uni-stuttgart.de/fakultaet/personen/Herschel



In case of any organizational questions ...

Dr. Stefanie Anstein:

Student Advisor / Co-program manager Pfaffenwaldring 5b, office 1.006 https://www.ims.uni-stuttgart.de/institut/team/Anstein-00002/ stefanie.anstein@ims.uni-stuttgart.de



Dr. Katrin Schneider:

Program manager Universitätsstr. 38, office 1.416 www.f05.uni-stuttgart.de/fakultaet/personen/Schneider-00001/ katrin.schneider@informatik.uni-stuttgart.de



In case of any general questions ...

International Service Point Faculty 5

Complementary to the services of the university's International Office:

- Support and contact point for the faculty's international students
- Promoting further internationalization at Faculty 5
- Events & networking activities for and with international students

Stay informed!

ISP Website * Monthly mailing *

Follow Meta & Laura on LinkedIn





Meta Geisbüsch, LL.M. & Laura Busch, M.A.

International Service Point (ISP) | Faculty 5 University of Stuttgart Pfaffenwaldring 47 | Room 4.270 internationalstudents@f05.uni-stuttgart.de Our monthly mailing!

Stay up to date on important information and events for international students of our faculty!





Upcoming events for international students of Faculty 5



- · Semester Opening | May 16
- Info Session: Working in the Stuttgart Region |
 July 1
- Excursion: "Your Future in Stuttgart" Career
 Event & Fair of the City Stuttgart | June 21 (tbc)
- Career Workshop: Interview Training | tbc
- Company Visit | tbc



Your academic advisor

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Your academic advisor ...

- can support you in planning your individual curriculum (via progress certificate, see https://www.f05.uni-stuttgart.de/en/cs/ students/master-programs/computer-science)
- can help you to decide about useful combinations of modules from a great variety of modules to be chosen from
- can be assigned according to your chosen major

Please contact Stefanie (stefanie.anstein@ims.uni-stuttgart.de) if you're interested.

| Name: | | | |
|------------------------|---------------------------------------|-------|----------------------------|
| Matriculation number: | | | |
| Major (study profile): | | | |
| Advisor: | | | |
| Advisor: | | | |
| | E for the chosen profile (24 Credits) | Grade | Confirmation by advisor |
| | E for the chosen profile (24 Credits) | Grade | |
| | E for the chosen profile (24 Credits) | Grade | |

Progress certificate MSc Computer Science

General plan of the program



Study plan suggestion (flexible; you decide about the order of modules)

M.Sc. Computer Science (English), University of Stuttgart

Majors ("Studienprofile"): Autonomous Systems / Service Technology and Engineering / Visual Computing

| Semester | Compulsory modules | Catalog Core* [24CP] | Catalog Extended* [12CP] | Catalog Breadth* [12CP] | Catalog Elective* [30CP] | total ECTS credit points** |
|----------|---|----------------------------|-------------------------------|------------------------------|--------------------------------|-------------------------------------|
| 1 | Theoretical and Methodological Foundations of <major>*** [6CP]</major> | Core modules worth 12CP | Extended modules worth 6CP | Breadth modules worth 6CP | | 30 |
| | Advanced Seminar Computer Science**** [3CP] | Core modules worth 6CP | Extended modules worth 6CP | Breadth modules worth 6CP | Elective modules worth 6CP | 30 |
| 2 | Key Qualification ("SQ")**** [3CP] | | | | | 30 |
| 3 | | Core modules worth 6CP | | | Elective modules worth 24CP | 30 |
| 4 | Master's thesis [30CP] | | | | | 30 |

study plan suggestion (flexible)

*) The modules offered in the catalogs can be found in C@MPUS.

**) 6CP are typically gained by 3V(lecture)+1Ü(exercise) = 4SWS/SH = 3h/week.

***) Either offered in winter or summer term.

****) To be taken in the second semester at the earliest.

Compulsory subjects

- Theoretical & Methodological Foundations of <your major> (6 CP; either offered in winter or summer term; filled with a course with a different name)
- Advanced Seminar Computer Science (3 CP; 2nd semester earliest):
 - seminar to get acquainted with research methodologies and scientific work
- Key qualification (3 CP; 2nd semester earliest):
 - obligatory for all students, free choice from large offer registration necessary (previous to the start of the semester)

Catalog modules

- specific contents for each major rules:
 - 24 CP from CORE
 - 12 CP from EXTENDED
 - 12 CP from BREADTH
 - 30 CP ELECTIVES
 - modules from bachelor programs can be used to a maximum of 6 CP for Extended, 6 CP for Breadth and 6 CP for Elective (in total at most 18 CP) – only if confirmed by the examination board
 - examination board can decide to include further modules in the catalogues, please send a request via S. Anstein

Master thesis

- you can register your thesis once you've gained 60 CP
- duration: 6 months

Example study plan for the major AUT

MSc Computer Science (English)

Example study plan for Major Autonomous Systems in Computer Science started in a summer term

| Term | Compulsory | Breadth | Core | Core | Extended | | | |
|--------|--|--|--|--|--|----|--|--|
| | Advanced Information | | Reinforcement Learning | 6 Machine Learning 6 | Mobile Computing OR Robust System | 30 | | |
| | | Management OR Data Engineering | Knowledge Graphs | 6 | Design | 30 | | |
| | Theoretical and Methodological Foundations of Autonomous Systems 6 | 6 Information Integration OR Data Warehousing, Data Mining, and OI AP | | | Embedded Systems Engineering OR | | | |
| 2 | Advanced Seminar 3 | | | 5 | Design for Reliability in Advanced 6 Technology | 30 | | |
| | Key Qualifications (SQ) 3 | ULAP | | | recillology | | | |
| 3 | Lab Course Artificial Intelligence OR Practical Course Information Systems 6 | Virtual and Augmented Reality OR Scientific Visualization | Deep Learning OR Detection and Pattern Recognition | Analyzing Software using Deep 6 Learning OR High-dimensional data approximation and learning | Software Engineering for Al-Based Systems OR System and Web Security | 30 | | |
| 4 | Master Thesis | | | | | | | |
| Lezend | apend 6 FCTS, twoir-ally are 3 lacture hours + 1 exercise hour ner week 3 FCTS twoir-ally are 2 lacture hours or 2 cerninar hours ner week | | | | | | | |

Example study plan for the major STE

MSc Computer Science (English)

Example study plan for Major Service Techology and Egineering started in a summer term

| Term | Compulsory | Breadth | | Core | | Core | | Extended | | ECT S |
|--------|--|---|-----------------------------|---|---|---|---------------------------|---|---|----------|
| 1 | | Machine Learning OR Reinforcement Learning | 6 | Data Engineering | 6 | Advanced Information Management 6 | 6 | IT Service Management OR High- dimensional data approximation and learning | 6 | 30 |
| 2 | Theoretical and Methodological Foundations of Service Technology and Engineering Advanced Seminar 3 | Embedded Systems Engineering OR Real-time Concepts for Embedded Systems | 6 Information Integration 6 | 6 | Data Warehousing, Data Mining, and OLAP 6 Service Management and Cloud | | 6 | 30 | | |
| | Key Qualifications (SQ) 3 | | | | ULAF | | Computing, and Evaluation | | | |
| 3 | Practical Course Visual Computing OR Laboratory Course Artificial Intelligence 6 | Mobile Computing OR Analyzing Software using Deep Learning | 6 | Knowledge Graphs OR Machine Perception and Learning | 6 | Security and Privacy OR System- and Web Security | 6 | High Performance Computing OR oftware Engineering for Al-based Systems | 6 | 30 |
| 4 | Master Thesis | | | | | | | 30 | | |
| Legend | gend 6 ECTS typically are 3 locture hours + 1 exercise hour per week. 3 ECTS typically are 2 locture hours or 2 seminar hours per week | | | | | | | | | |

Example study plan for the major VC

MSc Computer Science (English)

Example study plan for Major Visual Computing started in a summer term

| Term | Compulsory | Breadth | | Core | | Core | | Extended | | ECT S |
|--------|---|---|---|--|---|---|--|---|----|----------|
| 1 | | Knowledge Graphs OR System and Web Security | 6 | Scientific Visualization | 6 | Virtual and Augmented Reality 6 | 6 | Correspondence Problems in Computer Vision OR Machine Perception and Learning | 6 | 30 |
| 2 | Theoretical and Methodological Foundations of Visual Computing Advanced Seminar 3 | Simulation Software Engineering OR Distributed Systems I | 6 | Computer Vision | 6 | Information Visualization and Visual 6 Practical Course Visual Computing OR Analytics | Practical Course Visual Computing OR Practical Course Information Visualization | 6 | 30 | |
| | Key Qualifications (SQ) 3 | | | | | | | | | |
| 3 | Laboratory Course Artificial Intelligence OR High Performance Computing | Security and Privacy OR High- dimensional data approximation and learning | 6 | Mobile Computing OR IT Service Management | 6 | Detection and Pattern Recognition OR Deep Learning | | Analyzing Software using Deep Learning OR Software Engineering for Al-based Systems | | 30 |
| 4 | Master Thesis | | | | | | | | 30 | |
| Legend | egend 6 ECTS typically are 3 lecture hours + 1 exercise hour per week. 3 ECTS typically are 2 lecture hours or 2 seminar hours per week | | | | | | | | | |

Exam regulations & exam/module registration

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Exam regulations

- binding version in German & indicative version in English: www.student.uni-stuttgart.de/en/study-programs/ Computer-Science-M.Sc-00002./?page=examinations
- lists all obligatory modules & describes restrictions for the catalog modules, states (repetition) rules, deadlines etc.
- info on extensions and exceptions etc. (for academic accommodations due to special circumstances see also www.student.uni-stuttgart.de/en/organizing-studies/disability)
- most important rules (see also handout):
 - 4 semesters = regular duration
 - max. 9 semesters (independent of visa)
 - 4 SWS/SH/SSt = "Semesterwochenstunden" = 3h per week (2×90min) = 6 ECTS credit points
 - 1 ECTS credit point = 30h student's time (workload and weighting for average)

Exam regulations – regarding examinations

- exams can be written or oral: PL (written/oral exam), BSL (graded course achievement), USL (ungraded course achievement)
- graded exam: 1,0 (excellent) / 1,3 / 1,7 ...- 4,0 (acceptable)
- hint: there might be some preconditions to fulfill in order to be allowed to take part in an exam, e.g. homework etc.
- you have to register for exams in C@MPUS
- you can de-register from an exam until 7 days before it takes place later de-registration is only possible if you hand in a doctor's certificate (examination board will decide about its acceptance)
- you cannot de-register from exam repetitions

Exam regulations – regarding exam repetitions

- you can only repeat exams you have failed
- one repetition is allowed for each failed exam no influence on the grade
- 2nd repetition is allowed only 3 times during the whole program (contact us if you're in that situation)
- repetitions have to be carried out at the next possible date of the exam (in general after the following semester) & you have to register for them

Exam registration

- one online registration period for binding exam registration in each semester via the C@MPUS system
- you are not allowed to attend exams without having registered during this period
- dates: www.student.uni-stuttgart.de/en/exams/deadlines
- hints:
 - sometimes de-registration is not possible via C@MPUS \Rightarrow contact examination board (e.g. oral exams)
 - to be sure, take a screenshot of your (de-)registrations

Module handbook



The module handbook ...

- is a collection of all modules that belong to a program
- each module description includes an overview over contents/aims, name of the person responsible & the lecturer, CP, literature, exam ...
- can be found in the C@MPUS system:



Platforms: C@mpus and ILIAS

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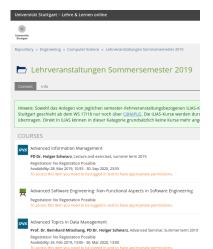
C@mpus is the online platform for ...

- finding the currently offered courses and their modules
- creating a personal schedule (via non-binding registration for courses)
- downloading certificates
- registering exams (via **binding** registration for **modules**) and de-registering
- getting an overview of your personal examination results (gained credit points; transcript)

- http://campus.uni-stuttgart.de
- login (st1234567@stud-uni...) & password

ILIAS is the online platform for ...

- finding slides & further seminar/exercise information (you get linked to the courses via C@mpus; in some cases, registration is required)
- uploading exercise solutions etc.
- https://ilias3.uni-stuttgart.de
- login (st account) & password



Your schedule

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List of currently offered courses

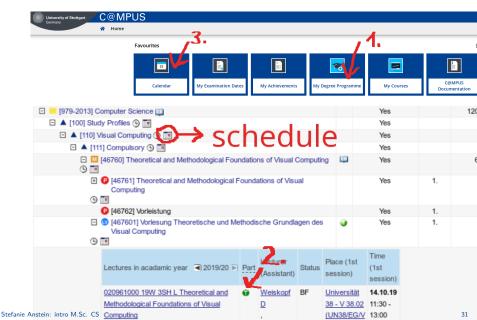
... extracted from C@MPUS for the MSc CS summer term 2023:

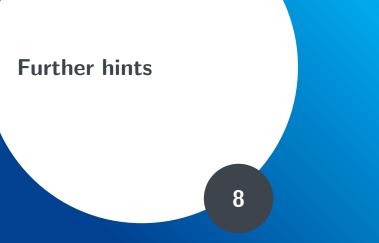
https://www.f05.uni-stuttgart.de/informatik/studierende/ master/Lehrveranstaltungen/24S/MSc-CS_24S.pdf

In C@MPUS directly:

- Find curriculum tree view
- Show calendar view for overlaps
- Register for courses (non-binding)
- Find personal schedule in "Calendar"

Finding your courses via C@MPUS:





Some further hints ...

- Forward your student mail to your private account if you don't read it directly! We strongly rely on you reading all our emails (from different sources and of different relevance, but please keep track!)!
- If you're on the waiting list for a dorm, make sure that you confirm regularly at the "Studierendenwerk" that you're still searching for a room! Additional hint: couchsurfing ...
- Some institutes offer block courses (e.g. IAAS); please check the institutes' websites & C@MPUS.
- Please be aware that exams may take place during the lecture-free period.
- The International Office, in addition to the ISP, offers lots of help for international students they're waiting for you to get your welcome package there!

Some more further hints ...

- Open learning space for maths and computer science questions: www.mint.uni-stuttgart.de/angebote/offener-lernraum
- "Makerspace" on campus Vaihingen for conducting individual projects: https://uni-stuttgart.de/maked-digital
- German language course advisable (via "Language Center" in C@MPUS, or self-organized as"Tandem")
- further institutions to get information & help:
 - Examination Office & Admissions Office
 - Pfaffenwaldring 5c
 - International Office (Internationales Zentrum)
 - welcome service
 - international mentoring, learning groups, psycho-social counselling, student associations, leisure activities, help with German forms etc.
 - Pfaffenwaldring 60

Even more further hints ...

further institutions to get information & help:

- Student Counseling Center (*Zentrale Studienberatung*)
 - general and specific questions, e.g. disabilities, chronic illness
 - contact point for all unclear issues
 - courses on studying efficiently etc., see https://www.student.
 uni-stuttgart.de/en/counseling/zsb/learning-counseling/
 - Pfaffenwaldring 5c
- Student Services (Studierendenwerk)
 - housing, childcare, legal advice, social advice, psychological support, finances, disabilities, ...
 - https://www.studierendenwerk-stuttgart.de/en
- Student representatives CS

https://fius.informatik.uni-stuttgart.de/index.php/en/startpage/

- support among students (e.g. old exams, social life etc.)
- "Ombudsperson": a neutral and confidential contact person for people in need of support in university conflicts: www.student.uni-stuttgart.de/en/counseling/ombudsperson

Even more further hints ...

further institutions beyond the university to get information & help:

- Welcome Center Stuttgart (https://welcome.stuttgart.de/welcomecenter/en/)
 - help in many areas for new students: Welcome Club, Job Centre etc.
- German job centre 'Agentur für Arbeit': https://www.arbeitsagentur.de/en/welcome (student job board etc.)
- Nightline Tübingen: an anonymous, confidential, unprejudiced and independent evening hotline (also available in English): https://nightline-tuebingen.de/

Some dates to save ...

- Online seminars by the IZ (https://www.student.uni-stuttgart.de/en/startingout/ international/orientation-days/registration)
 - Study financing: Mon, May 13, 4pm
- binding module exam registration period: May 14 June 4
- lecture breaks and public holidays (shops etc. closed!): see https://www.uni-stuttgart.de/en/study/application/ academic-calendar

In case of any questions ...

... please ask:

• Stefanie Anstein

co-program manager, student advisor &
contact person examination committee
(office: 01.006 in Pfaffenwaldring 5b)
stefanie.anstein@ims.uni-stuttgart.de
If in doubt, please ask - the sooner the better! :)
(... and please use cc instead of single e-mails
if you contact several persons about the same issue, thanks.)
By the way, we're always grateful for feedback about
how we could improve our services (websites, advising etc.)!

- (for more general issues): Meta and Laura at the International Service Point of faculty 5
 www.f05.uni-stuttgart.de/studium/international-service-point/
- (for student-related issues): CS student representatives https://fius.de/index.php/en/startpage/

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WELCOME again ...
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... at the University of Stuttgart!

Time for questions!

Stefanie Anstein: intro M.Sc. CS