WELCOME to the program Master of Science Computer Science

October 2023
Overview

1. Who is who?
2. Your academic advisor
3. General plan of the program
4. Exam regulations & exam/module registration
5. Module handbook
6. Platforms: C@mpus and ILIAS
7. Your schedule
8. Further hints
Who is who?
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](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](https://www.f05.uni-stuttgart.de/fakultaet/personen/Herschel)

• **YOU ;)**
  taking decisions, being pro-active, extending your comfort zone …
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 ...

... please ask our coordinators of the ISP F5 Meta & Laura:

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.

University of Stuttgart
International Service Point (ISP) | Faculty 5
Pfaffenwaldring 47 | Room 4.270
+49 (0)711 685 -67926 / -67277
internationalstudents@f05.uni-stuttgart.de
Our monthly mailing!

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

Sign up!
NEW FÜSQ: Intercultural Training in Academic Context
- An Overview of German Particularities in Academic Life, Communication and Understanding

• Special offer for international students of Faculty 5 – for free! - organized by the Language Center (SZ)
• Get important information and useful advice on how to make your studies in Germany a success!
• Workshop dates (2 weekends): Nov. 25./26. and Dec. 9./10.
• Credits (FÜSQ)
• Limited places!
• Registration on C@mpus: Oct. 9-18, 2023
Upcoming events for International students of Faculty 5

• **International Days | Nov. 14 - Nov. 17**
  among others: Career Workshop for International Students | Indian Night | Going Abroad Session | Training „How to survive in Germany“

• **Semester Opening | Nov. 30**

• **Working in the Stuttgart Region | Jan. 24**

• **Company Visits:**
  ads-tec Energy GmbH | Dec. 8, 2023
  Bosch Research | Jan. 26, 2024

• **To be continued…**
Your academic advisor
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.

Progress certificate MSc Computer Science

<table>
<thead>
<tr>
<th>Name:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Matriculation number:</td>
<td></td>
</tr>
<tr>
<td>Major (study profile):</td>
<td></td>
</tr>
<tr>
<td>Advisor:</td>
<td></td>
</tr>
</tbody>
</table>

Selected modules from CORE for the chosen profile (24 Credits)   |   | Confirmation by advisor |
-----------------------------------------------------------------|---|-------------------------|
|                                                               |   |                         |
|                                                               |   |                         |
|                                                               |   |                         |
|                                                               |   |                         |
|                                                               |   |                         |
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

<table>
<thead>
<tr>
<th>Semester</th>
<th>Compulsory modules</th>
<th>Catalog Core* [24CP]</th>
<th>Catalog Extended* [12CP]</th>
<th>Catalog Breadth* [12CP]</th>
<th>Catalog Elective* [30CP]</th>
<th>total ECTS credit points**</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Theoretical and Methodological Foundations of &lt;major&gt;*** [6CP]</td>
<td>Core modules worth 12CP</td>
<td>Extended modules worth 6CP</td>
<td>Breadth modules worth 6CP</td>
<td></td>
<td>30</td>
</tr>
<tr>
<td>2</td>
<td>Advanced Seminar Computer Science**** [3CP]</td>
<td>Core modules worth 6CP</td>
<td>Extended modules worth 6CP</td>
<td>Breadth modules worth 6CP</td>
<td>Elective modules worth 6CP</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Key Qualification (&quot;SQ&quot;)**** [3CP]</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>Core modules worth 6CP</td>
<td></td>
<td></td>
<td>Elective modules worth 24CP</td>
<td>30</td>
</tr>
<tr>
<td>4</td>
<td>Master's thesis [30CP]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>30</td>
</tr>
</tbody>
</table>

*) 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

<table>
<thead>
<tr>
<th>Term</th>
<th>Compulsory</th>
<th>Breadth</th>
<th>Core</th>
<th>Core</th>
<th>Extended</th>
<th>ECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>30</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Advanced Information Management OR Data Engineering</td>
<td>Reinforcement Learning</td>
<td>Machine Learning</td>
<td>Mobile Computing OR Robust System Design</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Theoretical and Methodological Foundations of Autonomous Systems</td>
<td>Information Integration OR Data Warehousing, Data Mining, and OLAP</td>
<td>Probabilistic Machine Learning</td>
<td></td>
<td>Embedded Systems Engineering OR Design for Reliability in Advanced Technology</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Advanced Seminar</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>Key Qualifications (SQ)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>60</td>
</tr>
<tr>
<td>2</td>
<td>Lab Course Artificial Intelligence OR Practical Course Information Systems</td>
<td>Virtual and Augmented Reality OR Scientific Visualization</td>
<td>Deep Learning OR Detection and Pattern Recognition</td>
<td>Analyzing Software using Deep Learning OR High-dimensional data approximation and learning</td>
<td>Software Engineering for AI-Based Systems OR System and Web Security</td>
<td>60</td>
</tr>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td>60</td>
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<td>3</td>
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<tr>
<td>4</td>
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<td>60</td>
</tr>
</tbody>
</table>

**Master Thesis**

Legend: 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.
# Example study plan for the major STE

## MSc Computer Science (English)

Example study plan for Major Service Technology and Engineering started in a summer term

<table>
<thead>
<tr>
<th>Term</th>
<th>Compulsory</th>
<th>Breadth</th>
<th>Core</th>
<th>Core</th>
<th>Extended</th>
<th>ECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>30</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Theoretical and Methodological Foundations of Service Technology and Engineering</td>
<td>6</td>
<td>Machine Learning OR Reinforcement Learning</td>
<td>6</td>
<td>Data Engineering</td>
<td>IT Service Management OR High-dimensional data approximation and learning</td>
</tr>
<tr>
<td></td>
<td>Advanced Seminar</td>
<td>3</td>
<td>Embedded Systems Engineering OR Real-time Concepts for Embedded Systems</td>
<td>6</td>
<td>Information Integration</td>
<td>Data Warehousing, Data Mining, and OLAP</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>3</td>
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<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Master Thesis</td>
<td>30</td>
</tr>
</tbody>
</table>

**Legend**

- 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.

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Stefanie Anstein: intro M.Sc. CS
# Example study plan for the major VC

## MSc Computer Science (English)

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

<table>
<thead>
<tr>
<th>Term</th>
<th>Compulsory</th>
<th>Breadth</th>
<th>Core</th>
<th>Core</th>
<th>Extended</th>
<th>ECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>Knowledge Graphs OR System and Web Security</td>
<td>Scientific Visualization</td>
<td>Virtual and Augmented Reality</td>
<td>Correspondence Problems in Computer Vision OR Machine Perception and Learning</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>Theoretical and Methodological Foundations of Visual Computing</td>
<td>Simulation Software Engineering OR Distributed Systems I</td>
<td>Computer Vision</td>
<td>Information Visualization and Visual Analytics</td>
<td>Practical Course Visual Computing OR Practical Course Information Visualization</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Advanced Seminar</td>
<td>3</td>
<td>6</td>
<td>6</td>
<td></td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Key Qualifications (SQ)</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td></td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td></td>
<td>30</td>
</tr>
</tbody>
</table>

**Master Thesis**

| 4    | Master Thesis | 30 |

**Legend**

- 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
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 (2x90min) = 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 ⇒ 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
Campus 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
List of currently offered courses

... can be extracted from C@MPUS for the current term:

- Find curriculum tree view via “All Study Programs – Master of Science – Computer Science”
- Click on calendar icon for seeing overlaps (set to “weekly schedule”)
- Register for courses (non-binding)
- Find personal schedule in “Calendar”
Finding your courses via C@MPUS:

1. Click on My Courses.
2. Locate the schedule for your courses.
3. Access the Calendar for upcoming events.
Further hints
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), PWR 5c
  - 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/

Tips and advice for successful learning
- Learning skills newsletter in the winter semester
- Counseling for individual students and learning groups
- Workshops on:
  - Efficient learning methods and exam preparation
  - Learning regularly, avoiding procrastination

Contact for appointment & newsletter subscription:
lernberatung@uni-stuttgart.de
Even more further hints ...

Further institutions to get information & help:

- Student Services (*Studierendenwerk*)
  - housing, childcare, legal advice, social advice, psychological support, finances, disabilities, ...
  - [https://www.studierendenwerk-stuttgart.de/en](https://www.studierendenwerk-stuttgart.de/en)

- Student representatives CS
  - 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](http://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, application document check etc.)

- Nightline Tübingen: an anonymous, confidential, unprejudiced and independent evening hotline (also available in English):
  https://nightline-tuebingen.de/
Some dates to save ...

- Informational event by Welcome Center Stuttgart: “Your Start in Stuttgart and the Region”
  Wednesday, 8th November 2023, 6 p.m. to 8 p.m.;
  www.stuttgart.de/your-start-in-stuttgart

- Academic dates:
  - binding module exam registration period: Nov 15 - Dec 7
  - lecture breaks and public holidays (shops etc. closed!):
    November 01, 2023 & December 23, 2023 to January 07, 2024;
    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
WELCOME again ...

... at the University of Stuttgart!

Time for questions!