Master in CS @ TUK

Some useful information for new students

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Disclaimer

• **This presentation is for informational purposes only.** It is not a legal document – please see our examination regulations for that!

• The **head of the examination board** (Master CS) is currently **Prof. Dr. Reinhard Gotzhein** - this talk is based on his slides. [gottzhein@informatik.uni-kl.de](mailto:gottzhein@informatik.uni-kl.de)
  Office hours: [https://vs.informatik.uni-kl.de/people/gottzhein/](https://vs.informatik.uni-kl.de/people/gottzhein/)

• **All regulations are subject to change!** Please keep that in mind, if you are using a printed or electronic copy of this document.
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Overview – Master Computer Science

Deepen your theoretical background in CS

Deepen your theoretical background for your specialization or application area

More computer science and/or application of CS

Sections

Master Thesis (30 CP)

Electives (56 CP or more)

Specialization 1 in Computer Science
(28 CP or more)

Specialization 2 in Computer Science
(12 CP or more)

Computer Science Theory
(8 CP or more)

Formal Fundamentals
(8 CP or more)

Free Choice (up to 34 CP)

Supplement
(up to 34 CP)

Your core areas of interest
Information Resources

• **CS department Master program web pages**

• There, look into the following sections of the Master program:
  – **Study plan**: overview, descriptions of specializations
  – **Regulations**: Examination regulations (English translation will be made available)

• **Module handbook**

• **International School for Graduate Studies (ISGS)**
  – [www.uni-kl.de/en/international/home/](http://www.uni-kl.de/en/international/home/)
Important First Steps

• Pick two specializations in Computer Science
  – Do the specialization profiles (see “Study Plan”) match your interests?
  – Any restrictions in your admission letter?
  – Do you have the prerequisites?
    • Check the descriptions in the study plan & module handbook for details.
  – You have to make a choice during your 1st semester. Also see page 12.

• Ask for mentor assignment
  – Your mentor is your primary contact for planning your studies.
    • Professor of CS department active in your first specialization
  – Send your choice of specialization by email to the head of the examination board (Prof. Gotzhein), he will assign a mentor to you.
    • You may also suggest a mentor.
Important First Steps (cont’d)

• Register at the examination office
  – For general master examination (one-time registration).
  – Registration period is half-way through the lecturing period
    • Summer semester: mid May until mid June
    • Winter semester: mid November until mid December
  • https://www.uni-kl.de/fileadmin/ha-4/Terminplaene/TPLAN_aktuelles_Semester.pdf in German
Plan Your Studies

• Prepare and update your individual study plan
• Your individual study plan is your personal aid for long-term planning of your studies.
• Structure your individual study plan according to the general study plan of your master program, to be found at
  – There, go to “Study Plan CS (Master)”.
• Observe the notes on the preparation of study and examination plans, and use the study plan template found at
  – https://www.informatik.uni-kl.de/en/studium/studierende/reform18/
    ➔ Notes on the Master studies
• Discuss your study plan with your mentor.
• It is NOT a formal document. ➔ It can be extended or modified any time.
Plan Your Studies (cont‘d)

• **First semester**
  – Check which courses are offered and pick those interesting for you.
  – Which courses are offered? → KIS system
    [www.kis.uni-kl.de/campus/all/subfields.asp?field=Informatik](http://www.kis.uni-kl.de/campus/all/subfields.asp?field=Informatik)
    • click on "Informatik" to see the list of all courses (including Bachelor!), or
    • explore "Spezialisierung in Bachelor und Master“ for Master-level courses in specific areas
  – Give preference to elective modules (see next page).

• **Try to look ahead**
  – Most courses are offered either every two or every four semesters,
    some only sporadically (see module handbook for details).
  – **CS course plans for current and two subsequent semesters at**
    [www.informatik.uni-kl.de/en/studium/lehrveranstaltungen/](http://www.informatik.uni-kl.de/en/studium/lehrveranstaltungen/)
Plan Your Studies: **Elective Modules**

- All modules in the sections “**Computer Science Theory**”, “**Formal Fundamentals**”, “**Specialization 1 and 2 in Computer Science**”
  - Only modules listed in the corresponding sections of the general study plan can be selected.

- **An examination procedure that has been started must be finished.**
  
  A failed third attempt leads to the final failure of the entire study program!

- **Modules where one or two exams have already been failed can be exchanged. But:**
  - The examination history (e.g. failed attempts, deadlines) is transferred to the new module.
  - Constraints apply – consult with the examination board and obtain permission
Plan Your Studies: Free Choice Modules

- All other modules of Computer Science and all modules of other departments.
- They can only be selected in the “Supplement” section, not in other sections, subject to certain restrictions.
- A free choice module may be dropped before the third failed attempt, without further consequences.
- Dropping is an active step! ➔ get approval from the examination board
  - Failure to do so means that the examination process continues, and missed deadlines will result in further failed attempts!
Plan your Studies: Specializations

• Two specializations in Computer Science must be selected when registering for the first examination.

• An exchange of Specialization 1 and Specialization 2 is possible at any time during your studies.

• One of the two specializations in Computer Science can be exchanged for a new one later. Permission of the examination board required! And (read carefully):
  – In this case, the modules of the former specialization where the examination process has already been started are shifted to the “Supplement” section.
  – Modules of the new specialization that have been placed in the “Supplement” section, and for which the examination procedure has already been started or finished – including modules opted out! – are to be moved to the new specialization and retain their examination history.
Plan Your Studies: Supplement

• Any of the modules offered at TUK, provided some constraints are met.
  – E.g. modules from specializations that have not been selected as electives.
  – E.g. modules from other departments on Master level, with a maximum of 10 CP on Bachelor level.
  – Modules in the scope up to 8 CP from an interdisciplinary area, e.g., language courses.

• It is possible to leave the Supplement empty, by selecting additional elective modules.
Plan Your Studies: Overall Regulations

• Exams for modules on Master level totaling at least 56 CP must be completed.

• Note: There is a minimum of exams for elective modules of 44 CP, so additionally, 12 CP are required. These can be elective or free choice modules.
Examination Plan

• **Formal document for the examination office to coordinate your exams**
• Get the appropriate form: [https://www.uni-kl.de/fileadmin/ha-4/42-Pruefung/MA-Formulare/Pruefungsplan_Masterstudiengang_Informatik.pdf](https://www.uni-kl.de/fileadmin/ha-4/42-Pruefung/MA-Formulare/Pruefungsplan_Masterstudiengang_Informatik.pdf)
• **Lists the modules you plan to get examined in, assigned to sections where you want to place them in.**
• Can be completed/modified step-by-step (see below).

• **Please include all required module details: module id, title, # of ECTS!**
• **Any change needs consent by the examination office** (elective modules) **or your mentor** (free choice modules)!
• **The approved plan has to be submitted to the examination office before you can register for any individual exams.**

• The plan for your first semester can be submitted with your initial registration at the examination office.
Examination Plan: Modifications

- Add new modules
- Remove modules, if no examination has taken place yet
- Replace elective module, if you have already failed an exam (exceptional case)
  - Modify your examination plan (indicate the replacement) and have it signed by the chairman of the examination board.
  - Failed attempts (including deadlines!) are carried over.
- Drop free choice modules before the third attempt: see the chairman of the examination board with the examination plan for approval
- Change a specialization, but constraints to be observed!
- It is not possible to remove a module once you’ve passed the exam!
Examinations

• Register ALL your (written and oral) exams at the examination office (building 47, floor 3) no later than 2 weeks before the exam date.
  – **Before you register an exam, you have to file an examination plan (see below).**
  – **No retrospective registration!**

• **Cancelling an exam:**
  – Up to 1 week before the exam, no questions asked.
  – Up to the day of the exam due to sickness or other important reasons.
    • Contact examination office no later than the day of the exam.
    • Provide documentation (e.g., statement by medical doctor) immediately.
  – **No retrospective cancellation!**

• **Find out whether the exam of a course is written or oral.**
  – Check Web page of the course.
  – Ask the professor holding the course.
Examinations (cont’d)

• **Written exams**
  – Examination dates are published at the beginning of the semester.
    • See “KIS: Informatik -> Prüfungen” of that semester
  – Usually, two exam dates are offered in the (academic) year in which the course takes place.
    • These may be in the same or in different semester(s).

• **Oral exams**
  – Obtain an examination date from the professor holding the exam.
  – Then, register at the examination office.

• **Make sure you have all prerequisites to take an exam!**
  – Prerequisites may be attendance of exercises and delivery of solutions.
  – **Find out in the first lecture of the course which rules apply.** See the Web.
Examinations: Failing an Exam (1)

• **You have a maximum of 3 attempts to pass an exam.**
• The second attempt has to be made during the two examination periods following the period where the first attempt was made.
  – Means: you can skip the next date and repeat a (yearly) lecture before retaking the exam for the first time.
• The third attempt has to be made during the four examination periods following the period where the first attempt was made.
  – If your 3rd written attempt was unsuccessful, there is a supplementary oral exam to finally decide about “pass” or “fail”.
• For oral exams: there must be at least one month between consecutive attempts.
Examinations: Failing an Exam (2)

- If you fail an elective module exam, you have to retake the exam.
- Free choice modules can be dropped before the third attempt.
  - Dropping modules is an active step, i.e., it has to be approved by the chairman of the examination board and to be documented in the examination plan.
  - Failure to do so means that the examination process continues, and missed examination deadlines result in further failed attempts.
- Make sure to register at the examination office. You are NOT automatically registered for repeat exams.
- If you don’t register, it’s an automatic “fail”
- Make sure to cancel an exam, if you don’t want to take it (now). Otherwise, this counts as a failed attempt.
Examinations: Leave of Absence (1)

• **In certain cases (proof required!), it is possible to apply for a leave of absence** ("Urlaubssemester"), e.g.:
  – Long-lasting sickness preventing from studying
  – Sickness or care of a close relative
  – Maternity or childcare leave
  – Studies in a foreign country

• **Regulations**
  – **During a leave of absence, no exams can be taken.**
    *Exceptions*: maternity or childcare leave; exams of studies in a foreign country.
  – **Examination deadlines are paused.**
  – **The application has to be filed before the semester starts.** In case of unforeseen events, it may be possible to file it later.
Examinations: Leave of Absence (2)

• For **further information**, please refer to
  - [https://www.uni-kl.de/en/](https://www.uni-kl.de/en/) goto “Information for ... Current Students” and select “Student Affairs” → “Leaves of Absence”
  - [www.uni-kl.de/fileadmin/ha-4/Antrag_auf_Beurlaubung.pdf](http://www.uni-kl.de/fileadmin/ha-4/Antrag_auf_Beurlaubung.pdf)
  - Mrs. Ochsenreither, 47-530
Examinations: Master’s Thesis

• When looking for a topic of your Master’s thesis, please keep in mind that a Master thesis in Computer Science MUST be (co-)supervised by a professor of the Department of Computer Science.

• Standard procedure is that students select a Master’s thesis topic offered by one of the professors of the department. Some professors are also directors of a computer science institute (DFKI, Fraunhofer IESE, Max-Planck). In these cases, permission to do an external Master thesis is usually granted.

• It is NOT standard procedure that students propose a Master’s thesis topic, as, e.g., “offered” by some company. In exceptional cases, this may work if the topic proposed by the student is within the area of expertise and interest of a professor, who therefore accepts the role of supervisor. If the student cannot find a professor who is ready to supervise, the topic is NOT eligible for the Master thesis.
Study Progress

• **Standard period of study is 4 semesters**

• **Maximum study period and progress deadlines:**
  
  – **You need to register for all exams** (i.e., all courses and the Master’s thesis) **no later than at the end of your sixth semester.**

  – **If you don't register until 2 semesters after this deadline, you will get a "failed" grade for your first attempt of the exam.** From that point on, the regular deadlines for repeating exams hold!

  – **To register the start of your Master’s thesis, you need at least 60 CP from courses** (and completion of your prerequisite courses, if any).
German Language Courses

• **DSI test** (equivalent to German A1-level)
  – This is a general requirement for all foreign master students (as defined by the university), **if you don't hold an equivalent certificate!**
  → Please don't take this requirement lightly! Deadline: check with ISGS!!

• **You can place a German language course (A2-level or higher) of the TU Kaiserslautern into your examination plan.**
  – 89-8303 General Fundamentals: German Language Course A2 (6 CP)
    • CS: in the general fundamentals section of the section “Supplement”
  – A certificate about the 6 CP can be obtained from language course lecturer on request.
    • requires at least 80% presence time and passing the exam!
Additional Prerequisite Courses

• **Goal:** make up for Bachelor courses not covered in your previous studies
  – Prerequisite courses are assigned by the admission committee.
  – They are listed in your admission letter.
  – Mostly, prerequisite courses are in the area of CS theory.

• **Double-check the assignment of prerequisite courses**
  – The admission committee has assigned prerequisite courses based on the available information.
  – Check the module handbook for the contents of these courses.
  – If you find that the topics have already been covered in your previous studies, please identify the courses and provide syllabi to the committee.
  – The admission committee will then reconsider.
Additional Prerequisite Courses (cont’d)

- **Courses are mostly in German** (Bachelor level).
- **Our offer:** for prerequisite courses, literature, exercise sessions, and examination questions are also provided in English.
- **Please contact the professor giving the course early on to clarify details and obtain information.**

**Prerequisites in Theoretical Computer Science**
- Logic and Semantics of Programming Languages: Prof. Dr. Ralf Hinze [ralf-hinze@cs.uni-kl.de](mailto:ralf-hinze@cs.uni-kl.de)
- Formal Languages and Computability: Prof. Dr. Katharina Zweig [zweig@cs.uni-kl.de](mailto:zweig@cs.uni-kl.de)
Additional Prerequisite Courses: Deadlines

• **You must pass exams for all prerequisite courses by the end of 4 (four) examination periods.**
• You should try to pass exams for all prerequisite courses within the first two semesters of your master studies (unless specified otherwise).
• **A failed exam can be repeated only once!**
• **Option 1: regular CS Bachelor exams**
  – Make sure you register for the exams in time; usually, these are written exams.
• **Option 2: "equivalence exam"** — arranged with the professor (oral or written, depending on the prerequisite course)
  – Make sure you register for the exams in time.
  – Only “pass” or “fail” grades.