

Appendix: Internship Regulations

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1. Purpose of internship, role in study program

(1) Students of the Master of Science course “Research in Computer & Systems Engineering” have the option to complete an internship worth 15 credit points (Leistungspunkte) during their third semester. Should students make this choice, fewer credit points are consequently needed from completing other course modules; in this case, the practical course replaces the module “Group Studies”. Details can be found in the Academic Regulations (Study Plan).

(2) The goal of the internship is to give students, by applying their own skills and motivations, an impression of the process that is central to the application of science-based methods in the conception, realisation, evaluation and utilisation of complex computer systems in a particular field of application; i.e. in industry, technology, economy, medicine, administration or research. In this way, students should be introduced to the professional activities of a Master’s of Science graduate working in the computer sciences or systems engineering.

2. Length and structure of internship, place within course

(1) According to § 3 Abs.3 MPO-BB for the course “Research in Computer & Systems Engineering”, an internship must last a total of at least ten weeks.

(2) As a rule, an internship must be carried out in the third semester at a relevant company, i.e. a company or administrative unit that plan, produce, maintain or operate complex computer systems (in the lattermost case, an IT department should be present).

(3) Proof of the internship having been formally recognised must be submitted before registering intent to begin writing a Master thesis.

(4) Completing an internship at multiple companies concurrently is not permissible.

(5) Time lost due to illness or other reasons must be made up for later, if the period of absence exceeds five days and nine weeks in total were not completed.

3. Internship contract, legal status, Examination Office

(1) Contact with the host company and the signing of an internship contract are to be arranged by the intern. The Examination Office can only advise during the selection process.

- (2) Internships at primarily middle-sized and larger companies that are formally recognised by the Chambers of Industry and Trade, and allow a student to gain practical professional experience in accordance with these regulations. Familial companies or small trade enterprises are generally unacceptable. Decisions regarding exceptions will be made by the Examination Board on request.
- (3) The intern must complete an internship contract with the host company.
- (4) According to “Artikel I § 2 Unfallversicherungseinordnungsgesetz (Siebte Buch, Sozialgesetzbuch) vom 7. August 1996 (BGBl. I S. 1254) m.W. v. 1. Januar.1997”, students are legally insured against accidents during their internship semester. In the case of an insurance claim, a copy of the accident report completed by the host company must be submitted to the Ilmenau University of Technology.
- (5) Generally, a student’s third-party liability in the workplace of the internship is covered by the host company’s third-party liability insurance for the duration of the internship contract.
- (6) The student must register their internship with the Examination Office before it begins, giving details of the company, the tasks and responsibilities involved in the internship and its length, as well as the contact details of a qualified supervisor at the host company. Additionally, a letter from an academic supervisor (a senior faculty member of the department overseeing the student’s study course) must be submitted along with the registration of the internship, wherein the fundamental validity of the internship with its planned tasks is confirmed and the readiness to evaluate and grade the report and completion of the Defense according to point five is stated.
- (7) The Examination Office of the Department of Computer Science and Automation is responsible for all matters relating to internships.

4. Internship Content

- (1) An internship involves practical activities, in which scientific methods are put into practice within an industrial or practical context, with an aim to conceptualise, implement, evaluate, utilise and maintain complex computer systems. For such activities, an appropriate scope of responsibility should be worked out with respect to the practical working conditions, preferably involving a balance of teamwork and individual completion of subtasks. The intern should gain an overview of general aspects of the industrial environment, such as team work, working to a deadline, questions of economic efficiency, quality management, data protection and environmental sustainability. The internship also serves to expose students to the social structure of companies and the continued development of soft skills.
- (2) The internship must involve activities within the fields of computer science or systems engineering, in one or multiple of the following areas:
 - a. software technology, software development environments, software tools, programming languages and translators;
 - b. data banks, documentation systems, computer systems, knowledge-based systems;
 - c. knowledge processing systems;
 - d. teaching and learning systems;

- e. image processing, neural networks, cognition systems, robotics, computer linguistics;
- f. operating systems, distributed computer systems, real-time systems, computer networks, teleinformatics, network communication, office systems, distributed applications;
- g. graphical systems, visualisation, CAD/CAM/CIM systems, animation, multimedia;
- h. functionality principles and evaluation of computer systems, functional computer design, hardware component design, modelling and the simulation of digital systems;
- i. design and realisation of combinatorial and sequential circuits, design methods and design tool for VLSI, digital fault diagnosis, simulation and verification of digital systems;
- j. multi-processor and multi-computer systems, process computers, innovative computer architectures, application-orientated architectures, imbedded systems;
- k. the utilisation of computer science skills from these areas in technical and nontechnical applications and research.

5. Internship certificate, activity report, recognition of internship and exceptional regulations

(1) After completing an internship, the intern must submit the following documents:

- a. A formal, weekly activity report with details of the work completed by the intern (bullet points, confirmed by the supervisor from the host company)
- b. An internship certificate from the host company with the following details:
 - i. Personal details of the intern (surname, forename, birthdate, birthplace)
 - ii. Details of the host company, department and location
 - iii. Length of the internship
 - iv. Nature of completed activities and their lengths, or the computer science task and its result
 - v. Absences (even if none were recorded), days missed due to illness must be documented separately
- c. An evaluation sheet
- d. a scientific/technical report of the student's internship tasks, as well as other experiences gained during the internship, of a length of approximately 10-15 sides of paper.

(2) This scientific/technical report must be defended in a 20-30 minute presentation, possibly followed by questions posed by the student's academic supervisor. This supervisor makes decisions regarding the recognition of the completed internship based on the documents submitted by the student. This supervisor can stipulate (once) either that the report should be improved or that the defence should be repeated. The academic supervisor issues an ungraded certificate, confirming that the internship has been officially recognised and that 15 credit points (Leistungspunkte) have been awarded.

(3) On the student's request, professional experience gained after the completion of a Bachelor's degree and lasting at least two years can be documented and formally recognised, as long as the strict standards regarding the goal of the internship set out in Point 4, no. 1 have been fulfilled beyond doubt. It is the duty of the student to submit proof of this. A detailed employee's reference, in which the nature of the work carried out; a report of the professional activity and projects completed are described to at least the extent described in section 1c, must be submitted after having been validated by a senior faculty staff member of a Computer Science department and an additional reviewer.

(4) The exam board is able to approve exceptional regulations for chronically-ill and disabled students.