Admission Examination for the M.Sc. Programme in Computer Science Fact Sheet

Purpose

This document contains information on the admission examination for the M.Sc. programme in Computer Science at the University of St.Gallen. The admission examination is mandatory for applicants with specific types of degrees.

Purpose of the admission examination is to demonstrate Computer Science knowledge equivalent to a university-level bachelor’s degree in Computer Science. This applies to applicants holding degrees from the University of St.Gallen in subjects other than Computer Science, bachelor’s degrees from other universities which are partly related to Computer Science, and bachelor’s degrees from Universities of Applied Sciences (*Fachhochschulen*) in Computer Science (or related fields).

Applicants holding a bachelor’s degree in Computer Science (or equivalent) from an accredited university are admitted to the M.Sc. in Computer Science at the University of St.Gallen without taking the examination.

Legal Framework

The regulations for admission to the M.Sc. in Computer Science at the University of St. Gallen are laid down in Art. 54d to Art. 54f of the *Implementing provisions of the Regulations governing the admission of applicants to the University of St.Gallen [IP AR]*.¹

These regulations define the nature of the admission examination, the responsible academic body (examination committee) and the academic degrees providing eligibility to their owners to take the examination.

¹ [https://erlasse.unisg.ch/lexoverview-home/lex-II_B_2_07?effective-from=20200324](https://erlasse.unisg.ch/lexoverview-home/lex-II_B_2_07?effective-from=20200324)
Date and Format of the Admission Examination

The admission examination contains a written examination and an oral examination.

The written examination of the admission examination will be scheduled for April 30, 2021. It is a Multiple-Choice test, duration 90 minutes.

The oral examinations are scheduled for May 17 to 19, 2021. Each candidate takes one oral examination with a length of 20 minutes.

The admission examination is offered only once per year. There is no alternative examination date offered.

The Dean of Studies & Academic Affairs issues the admission decision with a decree which is open to appeal.

Content of the written examination

The written admission examination focuses on core contents of Bachelor of Science study programmes in Computer Science and is structured around the “ACM Curricula Recommendations for Undergraduate Degree Programs in Computer Science”\(^2\). To prepare for the examination, we recommend the following literature:

- *Computer Science: An Interdisciplinary Approach* by Robert Sedgewick and Kevin Wayne, Chapters 1 to 7.3. See also the Book website: https://introcs.cs.princeton.edu/java/home/ with lecture slides and additional resources.

  Note: Part 1 of the book, “Introduction into Programming”, Chapters 1-4, is in Java. However, students will be able to prepare for Chapter 1-4 either in Java or Python. For a Python version of Chapter 1-4 see https://introcs.cs.princeton.edu/python/home/.

\(^2\) https://www.acm.org/binaries/content/assets/education/cs2013_web_final.pdf
- *Computer Networking: A Top-Down Approach, 7th Edition*, by James Kurose and Keith Ross, Chapters 1 to 4, Chapter 8, and an overview only on Chapters 5 to 7.

All admission examination questions dealing with programming languages can be solved in Java or Python. Using the literature or any other help during the examination is not permitted (“closed-book-examination”)

**Oral examination**

Applicants who passed the written examination successfully are invited to the oral examination. The oral examination covers the content as specified above for the written examination and includes an interview on the general academic background of the candidate. Duration: 20 minutes, individual per candidate, one examiner who is faculty member of the School of Computer Science.

The admission decision is taken after the oral examination, based on the results of both the written and the oral examination.

*Valid for the admission process for Autumn Semester 2021 intake onwards. School of Computer Science, October 2020*