

Program	Computer Science
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Below you will find the subject specific requirements for TUHH's international Master's program in "Computer Science".

At first please pay attention to the actual requirements themselves. You will notice that each "field" of requirement may list rather specific subject areas one has to fulfill. Please note that these specific areas are mandatory, meaning that if you already notice a lack of knowledge in one or more areas, you might not have a high chance for admission in the long run.

Now please complete the colored columns on the right side of the listed requirements. Please fill in the academic knowledge and skills you have achieved or will achieve prior to your potential studies at TUHH. Please fill the form to the best of your knowledge.

#### FAQ:

What does ECTS mean? ECTS (European Credit Transfer System) credits are based on the workload students need in order to achieve expected learning outcomes. Workload indicates the time students typically need to complete all learning activities (such as lectures, seminars, projects, practical work, self-study and examinations) required to achieve the expected learning outcomes. 60 ECTS credits are attached to the workload of a fulltime year of formal learning (academic year) and the associated learning outcomes. 1 ECTS credit corresponds to 30 hours of work load.

The form lists credit points (ECTS). My university has a different measurement unit. No problem, you can also use other units like CP or hours. Just make sure that you use one unit throughout the whole form. And don't forget to help us understand your statements by naming the unit of your choice in the corresponding box.

My studies took more than three years. Will that factor be considered by the university? Yes, it will. Just make sure that you write down both: the regular duration of your studies as well as the total number of units (e.g. ECTS, CP, hours) you have achieved after completion of your studies.

Some of my courses touch more than one required subject area. How should I proceed? In that case, you will have to split your measurement units accordingly. Do not multiply your knowledge by putting the full number of units into all boxes in question.

#### You may supply supplementary information if necessary (a maximum of 500 characters):

No supplementary information

Field	Requirements	Required units (ECTS)	Units achieved after completion of studies	Explanation (name of the subject according to the Transcript of Records e.g.)
<b>Mathematics</b>		<b>28</b>	<b>95.0</b>	
	Analysis	8		
	Linear Algebra	8	32.0	Calculus & Linear Algebra
	Discrete Mathematics	6	27.0	Mathematics-iii
	Stochastics	6	36.0	Probability and Statistics
<b>Theoretical Computer Science</b>		<b>18</b>	<b>21.0</b>	
	Automata Theory and Formal Languages	6	21.0	Formal Language & Automata Theory
	Computability and Complexity	6		
	Graph Theory	6		
<b>Practical Computer Science</b>		<b>24</b>	<b>96.0</b>	
	Programming	6	21.0	Programming for problem solving
	Algorithms and data structures	6	24.0	Data Structure and Algorithms Lab
	Operating Systems	6	27.0	Operating system
	Software Engineering	6	24.0	Software verification and validation and testing
<b>Technical Computer Science</b>		<b>12</b>	<b>40.0</b>	
	Computer organisation and structure	6	16.0	Computer organisation and architecture
	Computer networks	6	24.0	Computer networks

Unit used in this form (hours, ECTS e.g.):	hours
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Total number of units achieved during the studies:	28
Regular duration of studies (in years):	4