

## Computer Science (180 CP)

		CHOICE / CORE / CAREER <span style="float: right;">3 x 45 = 135 CP</span>				CONSTRUCTOR Track <span style="float: right;">45 CP</span>	
3 <sup>rd</sup> Year CAREER	Bachelor Thesis / Seminar <span style="float: right;">m, 15 CP</span>			Summer Internship / Start-Up (after 2 <sup>nd</sup> year) <span style="float: right;">m, 15 CP</span>		Argumentation, Data Visualization and Communication** <span style="float: right;">m, 5 CP</span>	Agency, Leadership & Accountability OR Community Impact Project <span style="float: right;">me, 5 CP</span>
	Specialization I <span style="float: right;">me, 5 CP</span>	Specialization II <span style="float: right;">me, 5 CP</span>	Specialization III <span style="float: right;">me, 5 CP</span>				Linear Model and Matrices OR Complex Problem Solving <span style="float: right;">me, 5 CP</span>
2 <sup>nd</sup> Year CORE	Software Engineering <span style="float: right;">m, 7.5 CP</span>	Automata, Computability, Complexity <span style="float: right;">m, 7.5 CP</span>	Machine Learning <span style="float: right;">me, 5 CP</span>	Academic Skills in CS <span style="float: right;">me, 2.5 CP</span>	Numerical Methods OR Statistics and Data Analytics <span style="float: right;">me, 5 CP</span>	Causation / Correlation ** <span style="float: right;">m, 2.5 CP</span>	
	Databases <span style="float: right;">m, 7.5 CP</span>	Operating Systems <span style="float: right;">m, 7.5 CP</span>	Functional Programming <span style="float: right;">me, 5 CP</span>	Legal and Ethical Aspects <span style="float: right;">me, 2.5 CP</span>	Probability and Random Processes <span style="float: right;">m, 5 CP</span>	Logic** <span style="float: right;">m, 2.5 CP</span>	
1 <sup>st</sup> Year CHOICE	Algorithms and Data Structures <span style="float: right;">m, 7.5 CP</span>	Digital Systems and Computer Architecture <span style="float: right;">m, 7.5 CP</span>	Development in JVM Languages <span style="float: right;">me, 7.5 CP</span>		Elements of Calculus <span style="float: right;">me, 5 CP</span>	German / Humanities <span style="float: right;">me, 2.5 CP</span>	
	Programming in C and C++ <span style="float: right;">m, 7.5 CP</span>	Mathematical Foundations of Computer Science <span style="float: right;">m, 7.5 CP</span>	Own Selection <span style="float: right;">me, 7.5 CP</span>		Elements of Linear Algebra <span style="float: right;">me, 5 CP</span>	German / Humanities <span style="float: right;">me, 2.5 CP</span>	

Minor Option in CS (30 CP)

CP: Credit Points

m: mandatory

me: mandatory elective

Study abroad Option in 5<sup>th</sup> Semester (22.5 CP)

\*\* Different module perspectives available