

A total of **92 credits** are required to graduate:

- Major core requirements: 32 credits
- Elective Requirements (Computer Science): 15 credits
- Mathematics requirements: 15 credits
- Liberal Arts Core Curriculum (LAC): 6 credits
- Liberal Arts Electives: 21 credits (Natural Sciences and Math: 9 credits, Arts and Humanities: min. 9 to max. 12 credits; Social Sciences min. 6-max. 9; LAC elective 3 credits)
- Free Electives: 3 credits

Major Core requirements (32 cr.)

Number	Course	Cr
<u>CSC243</u>	Introduction to Object Oriented Programming	3
<u>CSC245</u>	Objects and Data Abstraction	3
<u>CSC310</u>	Algorithms and Data Structures	3
<u>CSC320</u>	Computer Organization	3
<u>CSC322</u>	Computer Organization Lab	1
<u>CSC326</u>	Operating Systems	3
<u>CSC375</u>	Database Management Systems	3
<u>CSC430</u>	Computer Networks	3
<u>CSC447</u>	Parallel Program for Multicore and Cluster Systems	3
<u>CSC490</u>	Software Engineering	3

<u>CSC491</u>	Professional Experience	1
<u>CSC599</u>	Capstone Project	3

Elective Requirements (15 cr.)

Choose 5 courses from the following Computer Science electives:

Number	Course	Cr
<u>CSC323</u>	Digital Systems Design	3
<u>CSC412</u>	Introduction to Bioinformatics	3
<u>CSC420</u>	Computer Architecture	3
<u>CSC435</u>	Computer Security	3
<u>CSC440</u>	Advanced Object Oriented Programming	3
<u>CSC443</u>	Web Programming	3
<u>CSC450</u>	Computer Graphics	3
<u>CSC458</u>	Game Programming	3
<u>CSC460</u>	Artificial Intelligence	3
<u>CSC461</u>	Introduction to Machine Learning	3
<u>CSC462</u>	Fundamentals of Deep Learning	3
<u>CSC463</u>	Computer Vision	3
<u>CSC464</u>	Deep Learning for Natural Language Processing	3
<u>CSC495</u>	IT Project Management	3

<u>CSC498</u>	Topics in Computer Science (may be repeated)	3
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Mathematics Requirements (12 cr.)

Number	Course	Cr
<u>MTH201</u>	Calculus III	3
<u>MTH207</u>	Discrete Structures I	3
<u>MTH305</u>	Probability and Statistics	3
<u>MTH307</u>	Discrete Structures II	3

Mathematics Electives (3 cr.)

Choose one course from the following mathematics electives:

Number	Course	Cr
<u>MTH301</u>	Linear Algebra	3
<u>MTH303</u>	Numerical Methods	3
<u>MTH304</u>	Differential Equations	3
<u>MTH306</u>	Non-Linear Dynamics and Chaos	3
<u>MTH309</u>	Graph Theory	3
<u>MTH498</u>	Topics in Mathematics (may be repeated)	3

Liberal Arts Core Curriculum (6 cr.)

Number	Course	Cr
ENG202	Advanced Academic English	3
COM203	Art of Public Communication	3

Liberal Arts Electives (21 cr.)

Natural Sciences and Mathematics (9 cr.)

Number	Course	Cr
BIO209	Basic Biology for Computer Science	3
CHM209	Essentials of Chemistry for Computer Science	3
	Fulfilled by passing MTH201	3
	Fulfilled by passing MTH207	3

Social Sciences (min.6-max.9 cr.)

Number	Course	Cr
CSC480	Social and Prof. Issues in Computing	3
	Liberal Arts Elective	3
	Liberal Arts Elective	3
	Liberal Arts Elective	3

Humanities and Arts (min.9-max.12)

LAC Elective (3 credits)