

Computer Science

The Computer Science program at Haigazian University offers the Bachelor of Science (B.S.) degree.

On completion of their degree, Computer Science students will be able to:

- Design, implement, and evaluate computer programs that solve significant computational problems.
- Use Data Structures and develop algorithms to solve complex computational problems.
- Analyze problem complexity and design new algorithmic solutions when faced with new problems.
- Design and implement different software systems.
- Design and implement different database systems.
- Design and develop E-commerce and web-based systems.
- Understand and analyze modern computer hardware and software systems.
- Understand the specific design decisions regarding computer architecture, operating systems, and memory structures, and evaluate those design decisions.
- Focus on a specific area of interest by selecting from a variety of elective courses on advanced system programming, web and mobile computing, Geographical Information Systems, Artificial Intelligence, network programming, and others.

B.S. degree in Computer Science: In addition to the general education requirements, the Computer Science Department requires a minimum of 55 credits in computer science and 12 credits in mathematics. All computer science students must pass each of CSC 202 and MAT 201 with a minimum grade of 70 in order to register in higher level courses in the major.

The Department also offers a minor. A minor in Computer Science requires 18 credits: CSC 202, CSC 204, CSC 236, MAT 270, and any two CSC courses (excluding CSC 266). Students minoring in Computer Science should complete at least 9 credits of their minor at Haigazian University. Students minoring in Computer Science should score a minimum grade of 70 in CSC 202. For more details regarding minors, kindly refer to the Minors section of the catalog.

General Education

(30 cr.)

Core requirements for all HU students are listed on page 58.

Required Courses	(43 cr.)
CSC 200 Introduction to Computing	1 cr.
CSC 202 Computer Programming	3 cr.
CSC 204 Advanced Computer Programming & Data Structures	3 cr.
CSC 233 Logic Design of Digital Systems	4 cr.
CSC 236 Design and Analysis of Algorithms	3 cr.
CSC 238 Discrete Structures	3 cr.
CSC 239 Concepts of Programming Languages	3 cr.
CSC 240 Computer Architecture and Assembly Language	3 cr.
CSC 256 Database Systems	3 cr.
CSC 263 Software Engineering	3 cr.
CSC 271 Operating Systems	3 cr.
CSC 274 Data Transmission and Computer Networks	4 cr.
CSC 281 Theory of Computation	3 cr.
CSC 291 Computer Internship	1 cr.
CSC 299 Capstone Project	3 cr.

Elective Courses (12 cr.)

To be chosen in consultation with the student's advisor from the following:

CSC 237 Design and Analysis of Object-Oriented Programming	3 cr.
CSC 251 Numerical Analysis	3 cr.
CSC 278 Web Programming and Design	3 cr.
CSC 279 Mobile Application Development	3 cr.
CSC 280 Advanced Database Management Systems	3 cr.
CSC 282 Introduction to Artificial Intelligence	3 cr.
CSC 283 Computer Graphics	3 cr.
CSC 285 Compiler Design	3 cr.
CSC 286 Systems Programming	3 cr.
CSC 288 Operations Research	3 cr.
CSC 289 GIS for Computer Science	3 cr.
CSC 290 Advanced Computer Networks	3 cr.
CSC 295 Foundations of Parallel and Distributed Systems	3 cr.
CSC 297 Selected Topics in Computer Science	3 cr.
CSC 298 E-Commerce Technology	3 cr.

Mathematics Requirements

(12 cr.)

MAT 201 Calculus and Analytic Geometry III

3 cr.

MAT 202 Differential Equations

3 cr.

MAT 219 Linear Algebra

3 cr.

MAT 233 Statistics

3 cr.