

Efi Arazi School of Computer Science

B.Sc. in Computer Science

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A great deal of effort has been expended in preparing this handbook, in order to ensure that its content is complete and accurate. However, changes and alterations to the information are possible. Such changes, which will be published during the course of the year via various means, such as, the handbook on the IDC Herzliya website, and notifications, will obligate the entire student body.

The IDC Herzliya Academic Authorities are at liberty to cancel, alter or add studies subjects and /or specialization programs, and to generate changes in the times of lectures or in the manning of the subject instructor posts, at its discretion. These changes apply to all IDC Herzliya students, including students of the Raphael Recanati International School, unless specified otherwise.

Introduction

The curriculum of the undergraduate degree (B.Sc.) in Computer Science includes:

- 17 mandatory and elective courses in Computer Science
- 7 mandatory courses in Mathematics
- 2 English courses
- 4 Business administration or Entrepreneurship courses
- 4 general elective courses

The computer science curriculum includes a business administration or entrepreneurship cluster.

First Year

First-year students are required to take basic courses in Computer Science, Mathematics, and English. This year is dedicated to mandatory courses only, comprising 48 credits (including English courses).

Second Year

Second-year students are required to take mandatory courses in Computer Science, as well as a Business Administration or Entrepreneurship cluster. Students are also required to take one Computer Science elective course. This year comprises 44 credits.

Third year

Third-year students are required to complete their mandatory Computer Science and English requirements, and take additional Computer Science elective courses. This year comprises 26 semester hours.

In addition to the above, each student is required to take general elective courses comprising 8 credits (as detailed in each year's curriculum), to expand their general knowledge throughout their studies.

Students may choose general elective courses out of all courses offered on campus, providing courses are available and students meet their prerequisites. Registration for cross-campus courses will be done by applying to the Student Administration.

Overall, students are required to take 126 credits.

Program of Studies

First Year

Course Code	Course Name	Lecture Hours	Recitation Hours	Total Credit Points	Prerequisites	Final Course Assignment
Fall Semester Courses						
52	Calculus I Dr. Yossi Shamai	4	2	6		Exam
54	Linear Algebra I TBA	4	2	6		Exam
56	Discrete Mathematics Dr. Elette Boyle	3	2	5		Exam
417	Introduction to Computer Science Prof. Shimon Schocken	4	2	6		Exam
3111	English for CS Advanced 1 Dr. Daniel Portman	3		0		Exam
110	English for CS Advanced 2 Dr. Miriam Symon	3		2		Exam
Spring Semester Courses						
53	Calculus II Dr. Yossi Shamai	3	2	5	Calculus I	Exam
55	Linear Algebra II TBA	3	2	5	Linear Algebra I	Exam
59	Data Structures Dr. Zohar Yakhini	3	2	5	Int. to CS	Exam
69	Logic and Set Theory Dr. Elette Boyle	3	2	5	Discrete Math	Exam
3144	System Programming in C Dr. Jessica Cauchard	3		3	Intro. to CS Data Structures (simultaneously)	Exam
110	English for CS Advanced 2 Dr. Daniel Portman	3		2	English for CS Advanced 1	Exam
	Total Credits			48		

In addition to the mandatory courses, all CS students are required to take 8 credits of General Elective Courses during the course of their studies. The courses can be chosen from the General Studies Unit and from other IDC schools.

Second Year

Course Code	Course Name	Lecture Hours	Recitation Hours	Total Credit Points	Prerequisites	Final Course Assignment
Fall Semester Courses						
77	Algorithms Prof. Tami Tamir	3	2	5	Discrete Math Data Structures Logic and Set Theory	Exam
79	Digital Architectures Dr. Danny Seidner	3	2	4	Int. to CS, Discrete Mathematics	Exam
109	Introduction To Probability Dr. Elette Boyle	3	2	4	Discrete Math Calculus I	Exam
3144	System Programming in C Mr. Dvir Netanely	3		3	Int. to CS Data Structures	Exam
Spring Semester Courses						
80	Functional And Logic Programming Mr. Yotam Harchol	3	1	4	Int. to CS Data Structures	Exam
84	Operating Systems Mr. Omer Kochba	3	1	4	Data Structures Digital Architectures System Programming in C	Exam
3141	Machine Learning from Data Dr. Zohar Yakhini	3	2	4	Calculus I, II Algebra I, II Algorithms Int. to Probability	Exam

Cluster

As part of the Computer Science program, all students are required to choose between two clusters: Business Administration and Entrepreneurship

Business Administration Cluster

Fall Semester Courses						
76	Business Law Adv. Joel Slawotsky	3		3		Exam
152	Introduction to Microeconomics Dr. Carolina Silva	3		3		Exam
Spring Semester Courses						
81	Principles Of Marketing Management Dr. Michal Serr	3		3	Int. to Micro.	Exam
89	Fundamentals Of Finance Mr. Erez Levy	3		3		Exam

Course Code	Course Name	Lecture Hours	Recitation Hours	Total Credit Points	Prerequisites	Final Course Assignment
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Entrepreneurs Cluster

Fall Semester Courses

2280	Psychology, Creativity, Innovation and Entrepreneurship Dr. Mel Rosenberg	2		2		Paper
2281	Strategy and Marketing for Entrepreneurs Dr. Gali Einav	2		2		Paper
2312	Product Design and User Experience Mr. Ronel Mor	2		2		Paper

Spring Semester Courses

2282	Financial and Legal Principles for Entrepreneurs Mr. Daniel Pomerantz	2		2		Paper
2284	Final Project: Venture Creation Dr. Gali Einav	4		4		Project

Computer Science Elective Courses¹

Please choose one Computer Science elective course.

Prerequisites for each Computer Science elective course are a passing grade in all of the first year mandatory courses in CS and Mathematics, in addition to the specific prerequisites of each course, as detailed below:

Fall Semester Courses

3004	Securing Information Systems Dr. Ron Rymon	3		3	Algorithms (simultaneously)	Exam
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Spring Semester Courses

287	Digital Systems Construction Prof. Shimon Schocken	3		3		Exam
3125	Object Oriented Programming with C# and .NET Mr. Guy Ronen	3				Middle Semester Exam (date will be published)
3128	Build your own computer Dr. Danny Seidner	3		3	Digital Architectures	Project

Total Credits

43

In addition to the mandatory courses, all CS students are required to take 8 credits of General Elective Courses during the course of their studies. The courses can be chosen from the General Studies Unit (see file on the IDC website) and from other IDC schools.

¹ The above courses are offered in English. Students are welcome to select a course offered in Hebrew, as detailed in the handbook of the Hebrew program.

Exam Schedule

The dates of the examinations can be found on the IDC Herzliya website under Students > Student Information > Course Catalog, Student Regulations and Syllabus > Search Exams

A personal examinations schedule is published at the Student's Information website (My IDC).