

Azrieli, College of Engineering Jerusalem
The Department of Software Engineering
Total No. of Credits - 160

1st Academic Year

1st Semester

Course Code	Course Title	Weekly Lecture Hours	Weekly Practice Hours	Weekly Laboratory Hours	No. of Credits	Course Code	Prerequisites for Admission	Course Code	Corequisite Courses
10003	Linear Algebra 1	3	2		4.00			93035	Introduction to Programming
10124	Introduction to Calculus	3	2		4.00				
10035	Logic Design and Digital System	2	1		2.50				
10028	Introduction to Computer Programming	3	2	2	5.00				
10078	Discrete Mathematics 1	2	1		2.50				
Total		13	8	2	18.00				

2nd Semester

Course Code	Course Title	Weekly Lecture Hours	Weekly Practice Hours	Weekly Laboratory Hours	No. of Credits	Course Code	Prerequisites for Admission	Course Code	Corequisite Courses
10004	Linear Algebra 2	3	2		4.00	10003	Linear Algebra 1		
10017	Differential and Integral Calculus 1	4	2		5.00	10088	Introduction to Calculus and Analytic Geometry		
10031	Data Structures	3	1		3.50	10028	Introduction to Computer Programming		
10030	Computer Structure and Architecture	3	1		2.50	10035	Logic Design and Digital System		
10059	Object Oriented Software Development	2	2		3.00	10028	Introduction to Computer Programming		
10074	Discrete Mathematics 2	2	1		2.50	10078	Discrete Mathematics 1		
Total		17	9	0	20.50				

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2nd Academic Year

3rd Semester

Course Code	Course Title	Weekly Lecture Hours	Weekly Practice Hours	Weekly Laboratory Hours	No. of Credits	Course Code	Prerequisites for Admission	Course Code	Corequisite Courses
10018	Differential and Integral Calculus 2	4	2		5.00	10017	Differential and Integral Calculus 1		
96007	Physics 1 - Mechanics	3	1		3.50	10017	Differential and Integral Calculus 1	10018	Differential and Integral Calculus 2
10007	Algorithms 1	3	1		3.50	10074	Discrete Mathematics 2		
						10031	Data Structures		
10019	Mathematical Logic	3	1		3.50	10074	Discrete Mathematics 2		
10064	Programming in C and C++	3	2		4.00	10059	Object Oriented Software Development	10031	Data Structures
10034	Microprocessors	2		3	3.50	10030	Computer Structure and Architecture		
Total		18	7	3	23.00				

4th Semester

Course Code	Course Title	Weekly Lecture Hours	Weekly Practice Hours	Weekly Laboratory Hours	No. of Credits	Course Code	Prerequisites for Admission	Course Code	Corequisite Courses
10015	Probability and Statistics 1	2	1		2.50	10074	Discrete Mathematics 2	10018	Differential and Integral Calculus 2
						10017	Differential and Integral Calculus 1		
10072	Physics II - Electricity and magnetism	3	1		3.50	96007	Physics 1 - Mechanics	10018	Differential and Integral Calculus 2
10008	Algorithms 2	3	1		3.50	10007	Algorithms 1		
						10004	Linear Algebra 2		
10036	Databases	3	1		3.50	10019	Mathematical Logic		
						10031	Data Structures		
10040	Themes in Operating Systems	3	3		4.50	10064	Programming in C and C++		
						10031	Data Structures		
						10030	Computer Structure and Architecture		
10077	Introduction to Scientific Computing	3	1		3.50	10018	Differential and Integral Calculus 2		
						10004	Linear Algebra 2		
Total		17	8	0	21.00				

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3rd Academic Year
5th Semester

Course Code	Course Title	Weekly Lecture Hours	Weekly Practice Hours	Weekly Laboratory Hours	No. of Credits	Course Code	Prerequisites for Admission	Course Code	Corequisite Courses
10016	Probability and Statistics 2	2	1		2.50	10015	Probability and Statistics 1		
10046	Engineering Mathematics	3	1		3.50	10018	Differential and Integral Calculus 2	10004	Linear Algebra 2
10106	Software Project management	3			3.00	10040	Themes in Operating Systems		
						10064	Programming in C and C++		
10091	Programming over the Internet	2	1		2.50	10036	Databases		
						10064	Programming in C and C++		
10061	Computer Communication	3	1		3.50	10040	Themes in Operating Systems		
10054	Object Oriented Design	3	1		3.50	10064	Programming in C and C++		
10039	Communication Laboratory	2		1	2.50	10040	Themes in Operating Systems	10061	Computer Communication
10087	Automata and Formal Languages	2	1		2.50	10007	Algorithms 1		
						10019	Mathematical Logic		
Total		20	6	1	23.50				

6th Semester

Course Code	Course Title	Weekly Lecture Hours	Weekly Practice Hours	Weekly Laboratory Hours	No. of Credits	Course Code	Prerequisites for Admission	Course Code	Corequisite Courses
10108	Signal Processing	3	2		4.00	10072	Physics II - Electricity and magnetism		
						10004	Linear Algebra 2		
						10046	Engineering Mathematics		
10014	Software Engineering	3	2		4.00	10091	Programming over the Internet		
						10106	Software Project management		
10111	software systems security	3			3.00	10008	Algorithms 2		
						10039	Communication Laboratory		
						10061	Computer Communication		
10115	Software Engineering for Community	2			2.00	10014	Software Engineering		
10076	Computability and Complexity	2	1		2.50	10087	Automata and Formal Languages		
	Elective courses	6			6.00				
Total		19	5	0	21.50				

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4th Year
7th Semester

Course Code	Course Title	Weekly Lecture Hours	Weekly Practice Hours	Weekly Laboratory Hours	No. of Credits	Course Code	Prerequisites for Admission	Course Code	Corequisite Courses
96024	Introduction to Economics	2	1		2.50				
	Elective courses	7			7.00				
10051	Final Project		10		5.00				
Total		9	11	0	14.50				

8th Semester

Course Code	Course Title	Weekly Lecture Hours	Weekly Practice Hours	Weekly Laboratory Hours	No. of Credits	Course Code	Prerequisites for Admission	Course Code	Corequisite Courses
10099	Enterprises Management	3			3.00				
	Elective courses	6			6.00				
10051	Final Project		10		5.00				
Total		9	10	0	14.00				

Elective courses

Course Code	Course Title	Weekly Lecture Hours	Weekly Practice Hours	Weekly Laboratory Hours	No. of Credits	Course Code	Prerequisites for Admission	Course Code	Corequisite Courses
10107	Compilers Structure	3	1		3.50	10008	Algorithms 2		
						10087	Automata and Formal Languages		
10041	Distributed Systems	3	1		3.50	10061	Computer Communication		
10050	Image Processing	3	1		3.50	10108	Signal Processing		
10513	usability and user computer interface	3			3.00			10051	Final Project
10010	Artificial Intelligence	3			3.00	10007	Algorithms 1		
10117	Managing Software Product development - from POC to product	3			3	10014	Software Engineering		
10094	Software Testing	3			3.00	10091	Programming over the Internet		
10110	Information Retrieval	3			3.00	10014	Software Engineering		
10019	Big Data Storage Systems					10040	Themes in Operating Systems		
						10061	Computer Communication		
10093	Mobile Systems Programming	2		2	3.00	10039	Communication Laboratory		
						10014	Software Engineering		
10097	Advanced Topics in Computer Systems	3			3.00	10039	Communication Laboratory		
						10061	Computer Communication		
10101	Cloud Computing Technologies	3			3.00	10040	Themes in Operating Systems		
						10041	Distributed Systems		
10122	Deep Learning	3			3.00			10050	Image Processing
								10023	Machine Learning
10123	Machine Learning	3				10016	Probability and Statistics 2		
						10018	Differential and Integral Calculus 2		
						10004	Linear Algebra 2		