

## Course Structure Diagram with Course Credits

List of courses of taken each year are given below.

### BSc in Computer Engineering

#### 1<sup>st</sup> Year

##### Fall Semester (21/21 credits, 30/30 ECTS)

Course Code	Course Name	(Theory-Application) Credit	ECTS	Category	Prerequisite
YIT101	<u>Turkish I for Foreigners</u>	(2,0) 2	2	ECS	
COM 100	<u>Computer Engineering Orientation</u>	(2,0) 0	1	OCE	
ECC 106	<u>Introduction to Programming</u>	(4,2) 4	6	OCE	
CHM 101	<u>General Chemistry</u>	(4,2) 4	5	BS	
ENG 101	<u>English I</u>	(3,0) 3	4	ECS	
MTH 101	<u>Calculus I</u>	(4,0) 4	5	MT	
PHY 101	<u>General Physics I</u>	(4,2) 4	5	BS	
CAM100	Campus Orientation	(2,0)0	2	BS	

##### Spring Semester (21/42 credits, 32/62 ECTS)

Course Code	Course Name	(Theory-Application) Credit	ECTS	Category	Prerequisite
ECC 104	<u>Discrete Structures</u>	(3,0) 3	4	CS	
ECC 102	<u>Programming &amp; Problem Solving</u>	(4,2) 4	6	OCE	ECC106
ENG 102	<u>English II</u>	(3,0) 3	4	ECS	ENG101
MTH 102	<u>Calculus II</u>	(4,0) 4	5	MT	MTH101
MTH 113	<u>Linear Algebra</u>	(3,0) 3	4	MT	MTH101
PHY 102	<u>General Physics II</u>	(4,2) 4	5	BS	PHY101
CAR100	Career Planning	(2,0)0	2	ECS	
CHC100	Cyprus:History and Culture	(2,0)0	2	EBS	

#### 2<sup>nd</sup> Year

##### Fall Semester (19/61 credits, 28/90 ECTS)

Course Code	Course Name	(Theory-Application) Credit	ECTS	Category	Prerequisite
ECC 001	<u>Logic Design</u>	(4,2) 4	6	OCE	ECC104
ECC 201	<u>Data Structures &amp; Algorithms</u>	(4,2) 4	6	OCE	ECC102
ECC 204	<u>Electrical Circuits</u>	(3,2) 3	6	OCE	PHY102
MTH 201	<u>Differential Equations</u>	(4,0) 4	6	MT	MTH102
AIT 103	Atatürk Principles & Reforms I	(2,0) 2	2	BS	
YIT102	<u>Turkish II for Foreigners</u>	(2,0) 2	2	ECS	

**Spring Semester (20/81 credits, 30/120 ECTS)**

Course Code	Course Name	(Theory-Application) Credit	ECTS	Category	Prerequisite
<u>ECC 202</u>	<u>Database Management Systems</u>	(4,2) 4	6	OCE	ECC201
<u>ECC203</u>	<u>Computer Architecture and Organization</u>	(4,1) 4	6	OCE	ECC001
<u>ECC 205</u>	<u>Basic Electronics</u>	(4,2) 4	6	OCE	ECC204
<u>ENG 201</u>	<u>English Communication Skills</u>	(3,0) 3	4	ECS	ENG102
<u>RE</u>	<u>Introduction to Molecular Biology or any of Mat.&amp; Basic Sciences Electives</u>	(3,0) 3	5	BS	
<u>AIT104</u>	<u>Atatürk Principles &amp; Reforms II</u>	(2,0) 2	2	BS	
<u>COM 200</u>	<u>Summer Training I</u>	–	1	SI	

**3<sup>rd</sup> Year**

**Fall Semester (16/97 credits, 30/150 ECTS)**

Course Code	Course Name	(Theory-Application) Credit	ECTS	Category	Prerequisite
<u>ECC 302</u>	<u>Operating Systems</u>	(3,0) 3	6	OCE	ECC203
<u>COM 362</u>	<u>Signals and Systems for Computer Engineers</u>	(4,2) 4	6	OCE	MTH201
<u>COM 339</u>	<u>Programming Language Concepts</u>	(3,0) 3	6	CS	ECC106
<u>MTH 251</u>	<u>Probability and Statistics</u>	(3,0) 3	6	MT	MTH102
<u>COM 344</u>	<u>Automata Theory</u>	(3,0) 3	6	ECE	ECC 104

**Spring Semester (17/114 credits, 31/181 ECTS)**

Course Code	Course Name	(Theory-Application) Credit	ECTS	Category	Prerequisite
<u>ECC 301</u>	<u>Microprocessors</u>	(4,2) 4	6	OCE	ECC203
<u>ECC 303</u>	<u>Data Communications and Networking</u>	(4,2) 4	6	OCE	
<u>COM 333</u>	<u>Operational Research</u>	(3,0) 3	6	CS	ECC201
<u>COM 382</u>	<u>Real Time Systems</u>	(3,0) 3	6	OCE	MTH201
<u>ECC 002</u>	<u>Systems Simulation</u>	(3,0) 3	6	OCE	MTH251
<u>COM 300</u>	<u>Summer Training II</u>	–	1	SI	

**4<sup>th</sup> Year**

**Fall Semester (14/128 credits, 30/211 ECTS)**

Course Code	Course Name	(Theory-Application) Credit	ECTS	Category	Prerequisite
<u>COM 490</u>	<u>Engineering Design I</u>	(2,2) 2	6	BT	
<u>ECC 003</u>	<u>Software Engineering</u>	(3,0) 3	6	OCE	COM339
<u>TE</u>	<u>Technical Elective</u>	(3,0) 3	6	ECE	
<u>TE</u>	<u>Technical Elective</u>	(3,0) 3	6	ECE	
<u>TE</u>	<u>Technical Elective</u>	(3,0) 3	6	ECE	

### Spring Semester (14/142 credits, 29/240 ECTS)

Course Code	Course Name	(Theory-Application) Credit	ECTS	Category	Prerequisite
COM 491	<u>Engineering Design II</u>	(2,2) 2	6	BT	COM490
ECC426	<u>Economics For Engineers</u>	(3,0) 3	6	ECS	
FE	<u>Free Elective</u>	(3,0) 3	5	ECS	
TE	<u>Technical Elective</u>	(3,0) 3	6	ECE	
TE	<u>Technical Elective</u>	(3,0) 3	6	ECE	

YIT101, YIT102, AIT103, AIT104 are designated for oversee students (foreigners). AIT101, AIT 102, TUR101, TUR102 are designated for the students of Turkish nationality.

MT: Mathematics, BS: Basic Science, ECS: English Composition and Social Sciences, CS: Computer Science, OCE: Obligatory Computer Engineering Courses, ECE: Elective Computer Engineering Courses, BT: Bachelor's Thesis, SI: Summer Internship.

#### Restricted Technical Elective

- Microbiology
- Biochemistry
- MTH323 Numerical Analysis 3 credits

#### Free Elective

- One of Technical Electives or ECC427 Management for Engineers (3 Credits) 6 ECTS

#### Technical Electives (Category I)

Code	Title	Prerequisite	(Theory-Application) Credit	ECTS
ECC 401	<u>Microprocessor Systems</u>	ECC 301	(3,0) 3	6
ECC 402	<u>Computer Graphics</u>		(3,0) 3	6
COM 410	<u>Parallel Computer Architecture</u>		(3,0) 3	6
COM 414	<u>Digital Control Systems</u>	COM 382	(3,0) 3	6
COM 416	<u>Computer Networks</u>	ECC 303	(3,0) 3	6
ECC 404	<u>Neural Networks</u>		(3,0) 3	6
ECC 405	<u>Computer Hardware</u>	ECC 301	(3,0) 3	6
ECC 406	<u>System Programming</u>	ECC 106	(3,0) 3	6
COM 430	<u>Programming Languages I</u>	ECC 106	(3,0) 3	6
ECC 407	<u>Programming Languages II</u>	ECC 004	(3,0) 3	6
ECC 005	<u>Internet Programming</u>	ECC 102	(3,0) 3	6
ECC 408	<u>Advanced Object Oriented Programming</u>	ECC 106	(3,0) 3	6
ECC 409	<u>Object Oriented Programming II</u>	ECC 302	(3,0) 3	6
COM 447	<u>Advanced Operating System</u>	COM 360	(3,0) 3	6
ECC 411	<u>Digital Signal Processing</u>	ECC 202	(3,0) 3	6
ECC 412	<u>Database Applications</u>		(3,0) 3	6
ECC 413	<u>Introduction to Artificial Intelligence</u>	ECC 203	(3,0) 3	6

<b>Code</b>	<b>Title</b>	<b>Prerequisite</b>	<b>(Theory-Application) Credit</b>	<b>ECTS</b>
<u>COM 452</u>	<u>Introduction to Parallel Computing</u>		(3,0) 3	6
<u>ECC 415</u>	<u>Decision Making</u>	ECC 203	(3,0) 3	6
<u>COM 454</u>	<u>Advanced Computer Architecture and Organization</u>	ECC 303	(3,0) 3	6
<u>ECC 417</u>	<u>Mobile Computing</u>	ECC 303	(3,0) 3	6
<u>ECC 419</u>	<u>Digital Image Processing</u>		(3,0) 3	6
<u>COM 471</u>	<u>Hardware Design using FPGAs</u>	ECC 301	(3,0) 3	6
<u>ECC 006</u>	<u>Web Design and Programming</u>		(3,0) 3	6
<u>ECC 007</u>	<u>Multimedia Systems</u>	ECC 102	(3,0) 3	6
<u>ECC423</u>	<u>Introduction to Robotic Systems</u>	COM382	(3,0) 3	6