

SCHOOL OF ENGINEERING AND NATURAL SCIENCES

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Computer Engineering

Bahçeşehir University's Department of Computer Engineering offers the programs listed below at the undergraduate and postgraduate levels in the computer sciences, engineering, and information technologies fields:

- Computer Engineering Undergraduate Program
- Computer Engineering Graduate Program
- Information Technologies Graduate Program (i...

About Program

Attendance	English
Duration	4 Years
Level	Undergraduate

Introduction

Location

Beşiktaş South Campus

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INFORMATION

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Bahçeşehir University's Department of Computer Engineering offers the programs listed below at the undergraduate and postgraduate levels in the computer sciences, engineering, and information technologies fields:

- Computer Engineering Undergraduate Program
- Computer Engineering Graduate Program
- Information Technologies Graduate Program (in conjunction with the Software Engineering Department)
- Artificial Intelligence Engineering Undergraduate Program
- Artificial Intelligence Engineering Graduate Program
- Information Systems Services Graduate Program (along with the Software Engineering Department)

The Computer Engineering Department conducts various research in the field of computer sciences and engineering. Research studies focus on the branches given below:

- Artificial Intelligence
- Embedded Systems
- Information Systems.

Research studies on artificial intelligence focus on data mining, machine learning, pattern recognition, biomedical image processing, artificial neural networks, and cognitive science.

Research studies in the area of embedded systems concentrate on numerical IC/FPGA Design (VLSI), embedded hardware/software design, software/hardware test/verification, machine/computer vision, embedded video systems, industrial automation, and robots.

Research studies about information systems focus on database systems, computer networks, computer graphics, distributed and scientific calculation, online learning, cryptography, and web programming.

DETAILS

STAFF

Details

COMPUTER ENGINEERING			
Bachelor	TR-NQF-HE: Level 6	QF-EHEA: First Cycle	EQF-LLL: Level 6

Course Structure Diagram with Credits

1. Semester

Course Code	Course Name	Language	Prerequisites	Theoretical	Practical	Credit	ECTS
CMP1001	Introduction to Programming (C++)	English		2	2	3	6
ENG1003	Communications Skills and Academic Reporting I	English		2	2	3	4
MAT1051	Calculus I	English		3	2	4	7
MAT2033	Discrete Mathematics	English		3	0	3	6
PHY1001	Physics I	English		3	2	4	7
Total						17	30

2. Semester

Course Code	Course Name	Language	Prerequisites	Theoretical	Practical	Credit	ECTS
CMP1002	Object Oriented Programming (C++)	English		2	2	3	6
CMP1004	Introduction to Digital Logic	English		3	0	3	6
ENG1004	Communication Skills and Academic Reporting II	English		2	2	3	3
LAW1156	Child Law and Child Psychology	English		0	0	0	1
MAT1052	Calculus II	English		3	2	4	7
PHY1002	Physics II	English		3	2	4	7
Total						17	30

3. Semester

Course Code	Course Name	Language	Prerequisites	Theoretical	Practical	Credit	ECTS
CMP2003	Data Structures and Algorithms (C++)	English		3	2	4	7
CMP2007	Digital System Design	English		3	0	3	7
MAT1041	Linear Algebra	English		3	0	3	6
MAT2045	Numerical Methods for Engineers	English		3	2	4	5
	GE-Elective					3	5
Total						17	30

4. Semester

Course Code	Course Name	Language	Prerequisites	Theoretical	Practical	Credit	ECTS
CMP2004	Advanced Programming	English		3	0	3	7
CMP2008	Computer Organization	English		3	0	3	6
CMP2204	Introduction to Computer Networks	English		3	0	3	6
MAT2062	Differential Equations	English		3	0	3	6
	GE-Elective					3	5
Total						15	30

5. Semester

Course Code	Course Name	Language	Prerequisites	Theoretical	Practical	Credit	ECTS
CMP3001	Operating Systems	English		3	0	3	6
CMP3005	Analysis of Algorithms	English		3	0	3	6
HST1001	Atatürk's Principles and History of Turkish Republic I	English		2	0	2	2
SEN2022	Software Engineering Analysis and Design	English		3	0	3	7
SEN2104	Database Management	English		3	2	4	7

	Systems						
TLL1003	Turkish Language and Literature I	Turkish		2	0	2	2
Total						17	30

6. Semester

Course Code	Course Name	Language	Prerequisites	Theoretical	Practical	Credit	ECTS
CMP3008	Formal Languages and Automata Theory	English		3	0	3	6
CMP3010	Embedded Systems Programming	English		2	2	3	6
ENR3001	Non-Technical Aspects of Engineering	English		2	0	2	4
HST1002	Atatürk's Principles and History of Turkish Republic II	English		2	0	2	2
MAT3026	Probability and Statistics	English		3	0	3	6
TLL1004	Turkish Language and Literature II	Turkish		2	0	2	2
	Non-Departmental Elective					3	4
Total						18	30

7. Semester

Course Code	Course Name	Language	Prerequisites	Theoretical	Practical	Credit	ECTS
CMP4991	Capstone Project I	English		1	0	1	1
CMP4993	Summer Training	English		0	0	0	7
	Departmental Elective					3	6
	Departmental Elective					3	6
	GE-Elective					3	5
	GE-Elective					3	5
Total						13	30

8. Semester

Course Code	Course Name	Language	Prerequisites	Theoretical	Practical	Credit	ECTS
CMP4992	Capstone Project II	English		0	4	2	6
	Departmental Elective					3	6
	Departmental Elective					3	6
	Non-Departmental Elective					3	4
	Non-Departmental Elective					3	4
	GE-Elective					2	4
Total						16	30

- TR marked courses are taught in Turkish.
- EN marked courses are taught in English.
- There TR-EN marked section of courses in both English and Turkish.

RELATED
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