

**Department of Computer Engineering**  
**Undergraduate Curriculum**

<u>First Semester</u>			<u>Contact / Credit</u>	<u>Second Semester</u>			<u>Contact / Credit</u>
			<u>Hours</u>				<u>Hours</u>
CHEM	107	Basic Chemistry	(4+0) 4	MATH	102	Calculus II	(4+0) 4
MATH	101	Calculus I	(4+0) 4	MATH	256	Linear Algebra	(3+0) 3
PHYS	101	Physics I	(4+0) 4	PHYS	102	Physics II	(4+0) 4
CSE	100	Intro. to Computer Engineering	(2+0) 2	PHYS	103	Physics Lab	(0+2) 1
CSE	141	Intro. to Computer Programming	(3+2) 4	CSE	142	Intermediate Programming	(3+2) 4
ATA	121	Ataturk's Principles and the History of Turkish Renovation I	(2+0) 2	ATA	122	Ataturk's Principles and the History of Turkish Renovation II	(2+0) 2
TRD	121	Turkish Language I	(2+0) 2	TRD	122	Turkish Language II	(2+0) 2
			<u>(21+2) 22</u>				<u>(18+4) 20</u>

<u>Third Semester</u>			<u>Contact / Credit</u>	<u>Fourth Semester</u>			<u>Contact / Credit</u>
			<u>Hours</u>				<u>Hours</u>
MATH	255	Differential Equations	(3+0) 3	MATH	259	Numerical Methods	(3+0) 3
MATH	257	Discrete Mathematics	(3+0) 3	EE	232	Electronics	(2+2) 3
EE	231	Electric Circuits	(3+0) 3	STAT	253	Intro. to Prob. and Statistics	(3+0) 3
CSE	225	Data Structures	(3+2) 4	CSE	238	Systems Programming	(2+2) 3
ECON	203	Introduction to Economics	(3+0) 3	CSE	246	Analysis of Algorithms	(3+0) 3
			<u>(15+2) 16</u>	ECON	204	Engineering Economy	(2+0) 2
							<u>(15+4) 17</u>

**CSE 300 Summer Practice (Non-Credit)**

<u>Fifth Semester</u>			<u>Contact / Credit</u>	<u>Sixth Semester</u>			<u>Contact / Credit</u>
			<u>Hours</u>				<u>Hours</u>
CSE	315	Digital Design	(3+2) 4	CSE	338	Computer Organization	(3+2) 4
CSE	333	Operating Systems	(3+2) 4	CSE	344	Software Engineering	(3+2) 4
CSE	355	Database Systems	(3+2) 4	CSE	348	Signals and Systems	(3+0) 3
CSE	363	Object-Oriented Software Design	(3+0) 3	CSE	364	Formal Lang. & Auto. Theory	(3+0) 3
NTE	xxx	Non-technical Elective I	(2+0) 2	IE	335	Intro. to Operation Research	(3+0) 3
			<u>(14+6) 17</u>				<u>(15+4) 17</u>

**CSE 400 Summer Practice (Non-Credit)**

<u>Seventh Semester</u>			<u>Contact / Credit</u>	<u>Eighth Semester</u>			<u>Contact / Credit</u>
			<u>Hours</u>				<u>Hours</u>
CSE	417	Microprocessors	(3+2) 4	CSE	453	Info. Sys: Analysis & Design	(3+0) 3
CSE	474	Computer Networks	(3+0) 3	CSE	498	Engineering Project II	(0+4) 2
CSE	497	Engineering Project I	(0+4) 2	LAW	203	Business Law and Ethics	(3+0) 3
IE	381	Modeling and Discrete Simulation	(3+0) 3	TE	xxx	Technical Elective II	(3+0) 3
TE	xxx	Technical Elective I	(3+0) 3	TE	xxx	Technical Elective III	(3+0) 3
NTE	xxx	Non-technical Elective II	(2+0) 2	NTE	xxx	Non-technical Elective III	(2+0) 2
			<u>(14+6) 17</u>				<u>(14+4) 16</u>

Total Credits = **142**

Total Contact Hours = **158**

Total Number of Courses = **47**

**TECHNICAL ELECTIVES (3+0) 3**

CSE 414 VLSI Circuit Design	CSE 432 Distributed Systems
CSE 426 System Dynamics and Control	CSE 434 Advanced Unix Programming
CSE 438 Parallel Processing	CSE 444 Software Project Management
CSE 454 Distributed Databases	CSE 456 Management of Information Systems
CSE 457 Information System Security	CSE 458 Fundamentals of Electronic Commerce
CSE 459 Internet Programming	CSE 460 Principles of Programming Languages
CSE 461 Compiler Design	CSE 466 Introduction to Cryptography
CSE 475 Wireless and Mobile Networks	CSE 482 Artificial Intelligence
CSE 483 Computer Graphics	CSE 484 Multimedia Systems
CSE 488 Machine Learning	CSE 493 Seminar in Computer Engineering
CSE 494 Special Topics in Computer Engineering I	CSE 495 Special Topics in Computer Engineering II

*Courses from other departments or from the graduate programs can be taken as technical electives with the consent of the instructor and the approval of the academic advisor. At most one of the three technical electives can be taken from the other departments. Some technical electives may have prerequisite(s).*