ADIYAMAN UNIVERSITY
FACULTY OF ENGINEERING
DEPARTMENT OF
COMPUTER ENGINEERING

INTRODUCTORY BOOKLET

2025 - 2026

CONTENTS

Department of Computer Engineering

The department of computer engineering was established in 2012 and will continue to accept students from the 2022-2023 academic year. Computer Engineering Department provides service in the Faculty of Engineering building completed in 2016, the new building with a total area of 4000 m^2 has 8 classrooms for 50 people and one PC laboratory for 60 people other PC laboratory for 50 people.

As of 2024, there are a total of 7 faculty members working in our department, including 1 associate professor, 3 assistant professors, 1 lecturer and 2 research assistant.

Head of Department

Assoc. Prof. Dr. Sercan YALÇIN

Deputy Head of Department

Asst. Prof. Dr. Hüseyin VURAL

Academic Staff

Assoc. Prof. Dr. Sercan YALÇIN

Asst. Prof. Dr. Ferdi DOĞAN

Asst. Prof. Dr. Hüseyin VURAL

Asst. Prof. Dr. Ersan YAZAN

Lec. Dr. Zeynel Abidin SAMAK

Rsc. Asst. Abuzer DOGAN

Rsc. Asst. Arzu SEVİNÇ

Secretary of Department

Kadriye GÜNDÜZ

Mission &Vision

Mission

To train computer engineers who have the potential to shape the information age we are in and are well-equipped in basic computer and informatics subjects; to instil in them a sceptical approach and awareness of ethical behavior and to teach them lifelong learning. To undertake universal studies in all fields of computer engineering; To be an R&D partner where cooperation is sought in all kinds of scientific activities.

Vision

To be a department where qualified academics train globally sought- after graduates in the field of computer engineering in cooperation with industry and government institutions in a synergetic framework, using a highly developed research and teaching infrastructure, and direct academic studies in the field with their publications.

The Importance of Computer Engineering Department

Department of Computer Engineering, with the title of computer engineer gained on a solid foundation and engineering sciences background, can find a qualified job in national or international information institutions or in the academic field, analyze the functioning of an existing system, identify problems and find original and creative solutions, design and implement a new system, able to design projects, to make progress in business life, to make individual and team work, to express himself orally and in writing, to follow the sources written in a foreign language, to be open to innovations and self-confident, as well as sensitive to the problems of our age and fulfilling his profession with the responsibility required by this sensitivity, In order to train computer engineers who can act in accordance with ethical principles, it carries out an education plan that aims to train our students in the best way in both respects by reconciling theory and practice. The program includes compulsory courses related to both basic

engineering sciences and computer engineering. In addition to the compulsory courses in the education plan, there are also optional courses that students can choose according to their own preferences. Thus, the Department of Computer Engineering trains modern engineers who are equipped with the knowledge and skills to serve in all areas of the Computer Engineering profession on a national and international scale, develop themselves by following the developments in their field, are prone to teamwork, are inquisitive, and attach importance to ethical values.

Educational Objectives of the Department include;

- To train researcher graduates who can work in national and international universities and research institutions and do postgraduate studies.
- To train computer engineers who can pursue successful careers and reach leading positions in national and international organizations operating in the field of computer software/hardware.

- To train engineers who can produce professional and scientific projects and take an active role in these projects with the knowledge and skills they have acquired.
- To train engineers who follow current developments, have the ability to think critically and analytically, adopt ethical awareness, and have high communication power, to ensure that they can find qualified jobs in their field.

Why Computer Engineering?

Having a degree in computer engineering gives you the benefits of a broad knowledge, problem-solving and logical thinking ability, no matter what field you're working in. Many universities and employers see success in a computer science course or field as an indicator of versatility.

Job Opportunities for Graduates

Computer Engineering is a sought-after and in-demand field in all fields of technology. Our graduates can work in a wide range of positions, from software development to hardware design, from cyber security to data science.

Graduates of our department has the opportunity to work both in the public and private sectors as;

- Software / Hardware Specialist,
- Data Analyst,
- Database Specialist,
- Business analyst / System analyst
- Quality Control and Testing Specialist,
- Web Design Specialist,
- Graphic Design and Drawing,

- Information System Specialist
- Game engineer
- System programmer,
- Network administrator / System administrator

The Highest and the Lowest Placement Scores According to the Central Placement Results

According to the central placement results announced by the Presidency of Measurement, Selection and Placement Center (OSYS) in 2024 undergraduate students were placed in our department with the highest score of 388.90627 and the lowest score of 300.84943. Our quota for 45 undergraduate students has been filled. A total of 141 undergraduate students continues their education in our department.

Undergraduate Course Catalogue

1. Semester

Course Code	Course Name	C/E	T	P	L	Credit	ECTS
AİİT101	Ataturk's Principles and History of Revolutions I	C	2	0	0	2	2
FİZ101	Physics I	C	2	0	2	3	4
KİM101	Chemistry	C	2	0	2	3	4
MAT101	Calculus I	C	3	1	0	4	5
TD101	Turkish Language I	C	2	0	0	2	2
YD101	English Language I	C	2	0	0	2	3
BIL101	Algorithm and Programming I	C	3	0	2	4	6
BIL103	Introduction to Computer Engineering	C	2	2	0	3	4
Total			**18**	**3**	**6**	**23**	**30**

2. Semester

Course Code	Course Name	C/E	T	P	L	Credit	ECTS
AİİT102	Ataturk's Principles and History of Revolutions II	C	2	0	0	2	2
FİZ102	Physics II	C	2	0	2	3	4
MAT102	Calculus II	C	3	1	0	4	5
MAT104	Linear Algebra	C	2	0	0	2	3
TD102	Turkish Language II	C	2	0	0	2	2
YD102	English Language II	C	2	0	0	2	3
BIL102	Algorithm and Programming II	C	3	0	2	4	6
BIL104	Computer Hardware	C	2	1	0	3	5
Total			**18**	**2**	**4**	**22**	**30**

3. Semester

Course Code	Course Name	C/E	T	P	L	Credit	ECTS
MUH201	Statistics for Engineers	C	2	0	0	2	3
BIL201	Discrete Mathematics	C	3	1	0	4	5
BIL203	Database	C	2	0	1	3	5
BIL205	Object Oriented Programming	C	3	0	1	4	6
BIL207	Data Structures	C	3	0	1	4	6
BİL209	Professional English Language I	C	3	0	0	3	3
SOSSEC1	Social Elective Course	E	2	0	0	2	2
Total			**18**	**1**	**3**	**22**	**30**

4. Semester

Course Code	Course Name	C/E	T	P	L	Credit	ECTS
MAT202	Differential Equations	C	3	0	0	3	4
MUH204	Occupational Health and Safety	C	2	0	0	2	3
BIL202	Electrical Circuits and Electronics	C	3	0	1	4	5
BIL204	Digital Design	C	3	0	1	4	5
BIL206	Principles of Programming Languages	C	4	0	0	4	6
BIL208	Professional Foreign Language II	C	3	0	0	3	3
BIL210	Internship I	C	0	2	0	1	2
SOSSEC2	Social Elective Course	E	2	0	0	2	2
Total			**20**	**2**	**2**	**23**	**30**

5. Semester

Course Code	Course Name	C/E	T	P	L	Credit	ECTS
BIL301	Numerical Methods	C	3	0	0	3	4
BIL303	Computer Organization and Architecture	C	2	1	0	3	5
BIL305	Internet Programming	C	3	1	0	4	5
BIL307	Formal Languages and Automata Theory	C	3	0	0	3	5
BIL309	Software Engineering	C	3	0	0	3	5
BILSEC1	Technical Elective Course	E	3	0	0	3	4
SOSSEC3	Social Elective Course	E	2	0	0	2	2
Total			**19**	**2**	**0**	**21**	**30**

6. Semester

Course Code	Course Name	C/E	T	P	L	Credit	ECTS
BIL302	Algorithm Analysis	C	3	0	0	3	4
BIL304	Computer Networks	C	2	1	0	3	4
BIL306	Operating Systems	C	3	0	0	3	4
BIL308	Microprocessors and Controllers	C	2	0	1	3	5
BILSEC2	Technical Elective Course 1	E	3	0	0	3	4
BILSEC2	Technical Elective Course 2	E	3	0	0	3	4
SOSSEC4	Social Elective Course	E	2	0	0	2	2
BIL310	Internship II	C	0	2	0	0	3
Total			**18**	**3**	**1**	**20**	**30**

7. Semester							
Course Code	**Course Name**	**C/E**	**T**	**P**	**L**	**Credit**	**ECTS**
BIL401	Graduation Project	C	0	2	0	1	8
BIL403	IT Law	C	3	0	0	3	4
BILSEC3	Technical Elective Course 1	E	3	0	0	3	4
BILSEC3	Technical Elective Course 2	E	3	0	0	3	4
BILSEC3	Technical Elective Course 3	E	3	0	0	3	4
BILSEC3	Technical Elective Course 4	E	3	0	0	3	4
SOSSEC5	Social Elective Course	E	2	0	0	2	2
Total			**17**	**2**	**2**	**18**	**30**

8. Semester							
Course Code	**Course Name**	**C/E**	**T**	**P**	**L**	**Credit**	**ECTS**
BIL402	Adaptation to Engineering	C	0	2	0	1	15
MUHSEC	Engineering Elective Course 1	E	2	0	0	2	5
MUHSEC	Engineering Elective Course 2	E	2	0	0	2	5
MUHSEC	Engineering Elective Course 3	E	2	0	0	2	5
Total			**6**	**2**	**0**	**7**	**30**

Technical Elective Courses

BILSEC1 (5. Semester)							
Course Code	**Course Name**	**C/E**	**T**	**P**	**L**	**Credit**	**ECTS**
BIL311	Signals and Systems	E	3	0	0	3	4
BIL313	Information Systems	E	3	0	0	3	4
BIL315	Data Mining	E	3	0	0	3	4
BIL317	Computer Graphics and Animation	E	3	0	0	3	4
BIL319	Research Methods and Techniques	E	3	0	0	3	4
BIL321	Simulation and Modeling	E	3	0	0	3	4
BIL323	Advanced Programming	E	3	0	0	3	4
BIL325	Human Computer Interaction	E	3	0	0	3	4

BILSEC2 (6. Semester)							
Course Code	**Course Name**	**C/E**	**T**	**P**	**L**	**Credit**	**ECTS**
BIL312	Artificial Intelligence	E	3	0	0	3	4

BIL314	Data Science and Big Data Analysis	E	3	0	0	3	4
BIL316	Game Programming	E	3	0	0	3	4
BIL318	Wireless and Cellular Networks	E	3	0	0	3	4
BIL320	Deep Learning	E	3	0	0	3	4
BIL322	Automated Data Collection Techniques	E	3	0	0	3	4
BIL324	Graph Theory	E	3	0	0	3	4
BIL326	Cloud Computing	E	3	0	0	3	4
BIL328	System Programming	E	3	0	0	3	4
BIL330	Industrial Communication Systems	E	3	0	0	3	4
BIL332	Robotics	E	3	0	0	3	4
BIL334	Artificial Neural Networks	E	3	0	0	3	4
BIL336	Model Based Software Development	E	3	0	0	3	4
BIL338	Web Services	E	3	0	0	3	4
BIL340	Non-Relational Databases	E	3	0	0	3	4
BIL342	Electronic Commerce Applications	E	3	0	0	3	4
BIL344	Quantum Computing	E	3	0	0	3	4
BIL346	Server Based Operating Systems	E	3	0	0	3	4
BIL348	Open-Source Operating Systems	E	3	0	0	3	4
BIL350	Medical Image Processing	E	3	0	0	3	4
BIL352	Introduction to Cryptography	E	3	0	0	3	4

BILSEC3 (7. Semester)

Course Code	Course Name	C/E	T	P	L	Credit	ECTS
BIL405	Distributed Systems and Parallel Programming	E	3	0	0	3	4
BIL407	Blockchain and Digital Currencies	E	3	0	0	3	4
BIL409	Sensor Networks	E	3	0	0	3	4
BIL411	Embedded Systems	E	3	0	0	3	4
BIL413	Information Retrieval Systems	E	3	0	0	3	4
BIL415	Natural Language Processing	E	3	0	0	3	4
BIL417	Text Classification	E	3	0	0	3	4
BIL419	Image Processing	E	3	0	0	3	4
BIL421	Bioinformatics	E	3	0	0	3	4
BIL423	Voice Processing and Recognition	E	3	0	0	3	4
BIL425	Social Network Analysis	E	3	0	0	3	4
BIL427	Pattern Recognition	E	3	0	0	3	4
BIL429	Internet of Things	E	3	0	0	3	4
BIL431	Machine Learning	E	3	0	0	3	4
BIL433	Forensics	E	3	0	0	3	4
BIL435	Mobile Programming	E	3	0	0	3	4
BIL437	Computer and Network Security	E	3	0	0	3	4

BIL439	Advanced Internet Programming	E	3	0	0	3	4
BIL441	Autonomous Systems	E	3	0	0	3	4
BIL443	Python Programming	E	3	0	0	3	4
BIL445	Java Programming	E	3	0	0	3	4
BIL447	C# Programming	E	3	0	0	3	4
BIL449	.Net Programming	E	3	0	0	3	4
BIL451	Network Programming	E	3	0	0	3	4

Social Elective Courses

SOSSEC1 (3. Semester)

Course Code	Course Name	C/E	T	P	L	Credit	ECTS
SOS201	Communication	E	2	0	0	2	2
SOS203	Environment Management Systems	E	2	0	0	2	2
SOS205	Engineering Economy	E	2	0	0	2	2
SOS207	Critical Analytic Thinking	E	2	0	0	2	2
SOS209	History of Science	E	2	0	0	2	2
SOS211	Volunteering Study	E	2	0	0	2	2

SOSSEC2 (4. Semester)

Course Code	Course Name	C/E	T	P	L	Credit	ECTS
SOS202	Public Relations	E	2	0	0	2	2
SOS204	First Aid	E	2	0	0	2	2
SOS206	Environmental Pollution and Control	E	2	0	0	2	2
SOS208	Artificial Intelligence Methods	E	2	0	0	2	2
SOS210	Research and Investigation Techniques	E	2	0	0	2	2

SOSSEC3 (5. Semester)

Course Code	Course Name	C/E	T	P	L	Credit	ECTS
SOS301	Patent and Industrial Design	E	2	0	0	2	2
SOS303	Environment and Ecology	E	2	0	0	2	2
SOS305	History of Art	E	2	0	0	2	2
SOS307	Sign Language	E	2	0	0	2	2
SOS309	Operations Research	E	2	0	0	2	2
SOS311	Technology and Innovation Management	E	2	0	0	2	2

SOSSEC4 (6. Semester)							
Course Code	**Course Name**	**C/E**	**T**	**U**	**L**	**Credit**	**ECTS**
SOS302	Entrepreneurship	E	2	0	0	2	2
SOS304	Akhism and Professional Ethics	E	2	0	0	2	2
SOS306	Production Planning	E	2	0	0	2	2
SOS308	Ergonomics	E	2	0	0	2	2
SOS310	Climate Change and Sustainable Management	E	2	0	0	2	2
SOS312	Career Planning and Development	E	2	0	0	2	2
SOS314	International Relations	E	2	0	0	2	2

SOSSEC5 (7. Semester)							
Course Code	**Course Name**	**C/E**	**T**	**P**	**L**	**Credit**	**ECTS**
SOS401	Occupational Law	E	2	0	0	2	2
SOS403	Intellectual and Industrial Property	E	2	0	0	2	2
SOS405	Energy Saving in Industry	E	2	0	0	2	2
SOS407	Business Administration and Management	E	2	0	0	2	2
SOS409	Factory Organization and Facility Planning	E	2	0	0	2	2
SOS411	Productivity Measurement and Analysis	E	2	0	0	2	2
SOS413	Risk Management	E	2	0	0	2	2
SOS415	Energy and Environment	E	2	0	0	2	2

Engineering Elective Courses

MUHSEC (7. Semester)							
Course Code	**Course Name**	**C/E**	**T**	**P**	**L**	**Credit**	**ECTS**
MUH402	Innovation and Product Development	E	2	0	0	2	5
MUH404	Quality Control and Standards	E	2	0	0	2	5
MUH406	Productivity Management	E	2	0	0	2	5
MUH408	Organizational Behavior for Engineers	E	2	0	0	2	5
MUH410	Business Establishment and Government Supports	E	2	0	0	2	5

C: Compulsory **E:** Elective **T:** Theoretical **P:** Practical **L:** Laboratory **Credit:** National Credit **ECTS:** European Credit Transfer and Accumulation System

Activities

The Computer Engineering Department organizes Tea Talk events annually, where informative seminars on new research topics are held. These Tea Talk seminars are open to all faculty and students. The goal is to increase students' interest in academia and to create a scientific discussion environment. In addition, Career Talks are held regularly every year, where experts in the field give seminars. The aim of these talks is to inform students about job opportunities and market conditions.

FACULTY OF ENGINEERING

DEPARTMENT OF COMPUTER ENGINEERING

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