



ALANYA UNIVERSITY

FACULTY OF ENGINEERING AND NATURAL SCIENCES

Department of Computer Engineering

Undergraduate Program (English-Medium)

Department Overview — 2024–2025 Academic Year



FOUNDED

2019–2020



LANGUAGE

English



DURATION

4 Years + Prep.



CAMPUS

Alanya / Antalya

240 ECTS · 60 Courses · 8 Semesters · Full-Scholarship Track · Foundation University



About the Department

An English-medium program uniting computer science and electronic engineering

The English-medium B.Sc. program in Computer Engineering admitted its first students in the Fall semester of 2019–2020 and graduated its first class in 2024. The program unites computer science with electronic engineering, focusing on the design, development and operation of both hardware and software systems.

With a teaching staff experienced in both academia and the field, the department aims to educate successful computer engineers ready to enter industry and/or pursue academic careers.

Goal: *graduates prepared for professional life through a capstone project, profession seminars and career-preparation study.*



Faculty

Engineering & Natural Sciences

Home faculty of the department



Language

English

Preparatory class available



First Graduates

Class of 2024

First cohort graduated in 2024



Location

Cikcilli & H. Emin Paşa

Alanya / Antalya campuses



Mission, Outcomes & Careers

What the program builds and where it leads



Mission

- A strong foundation uniting computer science and electronic engineering
- Problem-solving skills and hardware–software interface design
- Graduates ready for academia or industry



Competencies Gained

- Databases, programming languages, web & mobile development
- Data communication, computer networks, software engineering
- AI, machine learning, data science and image processing



Career Paths

- Software developer, web/mobile programmer, database specialist
- Network specialist, project lead, application developer
- Data science / AI roles and academic research tracks



Academic Staff

Faculty and research assistants of the department



Prof. Dr. Umut Tosun

Head of Department



Asst. Prof. Naci Er

Vice Head of Department



Asst. Prof. Merve Doğan

Faculty Member



Asst. Prof. Ersin Ersoy

Faculty Member



Asst. Prof. Mehmet Karakoç

Faculty Member



Asst. Prof. Ulduz M. Özel

Faculty Member



Asst. Prof. Alper Kızıl

Faculty Member



Res. Asst. Ali Osman Aydoğdu

Research Assistant



Res. Asst. Burak Keskin

Research Assistant

Staff Composition: 1 Professor · 6 Assistant Professors · 2 Research Assistants



Admission Statistics (Scholarship)

National placement figures for the full-scholarship track

384.28

2025 Base Score

119,143

2025 Success Rank

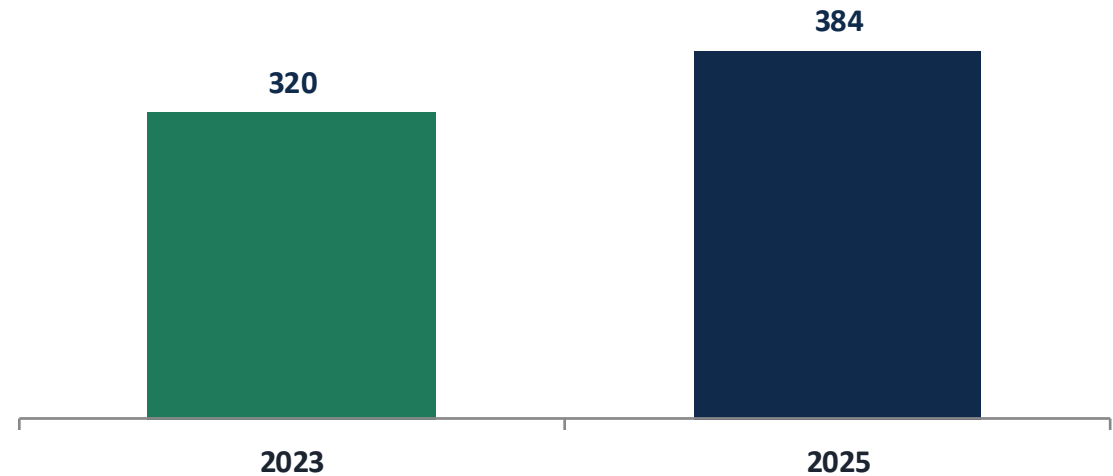
Science

Score Type

English

Language

Base Score by Year (Scholarship)



Rising trend: success rank improved from 261,505 (2023) to 119,143 (2025). This is the highest base-score program university-wide.
Full Scholarship · Foundation University.

Source: YÖK Atlas / ÖSYM (program code 210100297). Figures may change according to the current guide.



Overall Structure of the Program

Eight Bologna-compliant semesters across four course categories

8

Semesters

30 ECTS each

240

ECTS Credits

Bologna-compliant

2

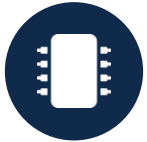
Capstone Projects

CSE 411 & 412

2

Mandatory Internships

Semesters 4 & 6



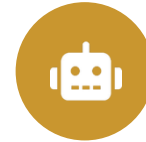
Core Engineering

Programming I–II, Data Structures, Algorithms, Operating Systems, Computer Architecture, Networks



Mathematics & Basic Science

Calculus I–II, Linear Algebra, Differential Equations, Probability & Statistics, Physics I–II



AI & Data

Artificial Intelligence, Machine Learning, Deep Learning, Data Mining, Image Processing



General & Electives

University/departmental electives, foreign languages, ethics, entrepreneurship and internships



First Year — Compulsory Core

Programming, mathematics and basic-science foundations

First Semester — Fall

30 ECTS

Code	Course	T	P	C	ECTS
TKL 111 / YTO 111	Turkish Language I	2	0	2	2
ENG 111	Academic English I	2	0	2	2
GE 111 / GE 105	University Culture / Psychology	3	0	3	5
CSE 101	Introduction to Computer Engineering	3	0	3	5
CSE 103	Computer Programming I	3	2	4	6
MAT 105	Calculus I	3	0	3	5
PHY 101	Physics I	3	2	4	5
Total		19	4	21	30

Second Semester — Spring

30 ECTS

Code	Course	T	P	C	ECTS
TKL 112 / YTO 112	Turkish Language II	2	0	2	2
ENG 112	Academic English II	2	0	2	2
GE 112 / GE 104	City Culture / Sociology	3	0	3	5
CSE 102	Discrete Mathematics	3	0	3	5
CSE 104	Computer Programming II	3	2	4	6
MAT 106	Calculus II	3	0	3	5
PHY 102	Physics II	3	2	4	5
Total		19	4	21	30

T Theoretical P Practice C Local Credit ECTS European Credit Transfer System (C = T + 0.5×P)



Second Year — Compulsory Core

Data structures, databases, electronics and computer organization

Third Semester — Fall

30 ECTS

Code	Course	T	P	C	ECTS
HIST 211 / YTT 211	History of Turkish Revolution I	2	0	2	2
GE 211	Social Responsibility and Ethics	3	0	3	5
CSE 211	Data Structures	3	2	4	5
CSE 203	Electronics for Computer Engineers	3	2	4	5
CSE 215	Digital Circuits and Systems	3	0	3	3
MAT 201	Linear Algebra	3	0	3	5
UE 211	University Elective	3	0	3	5
Total		20	4	22	30

Fourth Semester — Spring

30 ECTS

Code	Course	T	P	C	ECTS
HIST 212 / YTT 212	History of Turkish Revolution II	2	0	2	2
CSE 202	Programming Languages	3	0	3	5
CSE 204	Database Management Systems	3	2	4	6
CSE 206	Computer Organization	3	0	3	4
MAT 202	Differential Equations	3	0	3	5
UE 212	University Elective	3	0	3	5
CSE 210	Internship Work I	0	0	0	3
Total		17	2	18	30

T Theoretical P Practice C Local Credit ECTS European Credit Transfer System (C = T + 0.5×P)



Third Year — Onset of Specialisation

Algorithms, systems, networks and the first electives

Fifth Semester — Fall

30 ECTS

Code	Course	Prereq.	T	P	C	ECTS
CSE 311	Algorithm Design and Analysis	CSE 211	3	0	3	4
CSE 313	Operating Systems	CSE 206	3	0	3	3
CSE 305	Microprocessors and Microcomputers	–	3	2	4	5
CSE 317	Data Communication and Computer Networks	–	3	0	3	3
MAT 301	Probability Theory and Statistics	–	3	0	3	5
UE 311	University Elective	–	3	0	3	5
DE 311	Departmental Elective	–	3	0	3	5
Total			21	2	22	30

Sixth Semester — Spring

30 ECTS

Code	Course	Prereq.	T	P	C	ECTS
CSE 302	Project Design	–	3	0	3	4
CSE 314	Software Engineering	–	3	2	4	5
CSE 306	Computer Architecture	CSE 215	3	0	3	4
CSE 308	Formal Languages and Automata Theory	CSE 102	3	0	3	4
UE 312	University Elective	–	3	0	3	5
DE 312	Departmental Elective	–	3	0	3	5
CSE 310	Internship Work II	–	0	0	0	3
Total			18	2	19	30

T Theoretical P Practice C Local Credit ECTS European Credit Transfer System (C = T + 0.5×P)



Fourth Year — Capstone & Electives

Two-semester senior design project and specialization electives

Seventh Semester — Fall

30 ECTS

Code	Course	Prereq.	T	P	C	ECTS
CSE 411	Senior Design Project I	CSE 302	0	8	4	5
UE 411	University Elective	–	3	0	3	5
DE 411	Departmental Elective I	–	3	0	3	5
DE 411	Departmental Elective II	–	3	0	3	5
DE 411	Departmental Elective III	–	3	0	3	5
DE 411	Departmental Elective IV	–	3	0	3	5
Total			15	8	19	30

Eighth Semester — Spring

30 ECTS

Code	Course	Prereq.	T	P	C	ECTS
CSE 412	Senior Design Project II	CSE 411	0	8	4	5
UE 412	University Elective	–	3	0	3	5
DE 412	Departmental Elective I	–	3	0	3	5
DE 412	Departmental Elective II	–	3	0	3	5
DE 412	Departmental Elective III	–	3	0	3	5
DE 412	Departmental Elective IV	–	3	0	3	5
Total			15	8	19	30

T Theoretical P Practice C Local Credit ECTS European Credit Transfer System (C = T + 0.5×P)



Departmental Electives (DE)

Technical and non-technical electives grouped by theme



Software Development & Programming

- CSE 351 Web Programming
- CSE 354 Mobile Programming
- CSE 355 Visual Programming
- CSE 353 Technical Programming
- CSE 356 Scientific Programming
- CSE 352 Design Patterns
- CSE 456 Game Programming
- CSE 360 Software Project Management



Systems, Security, Profession & Law

- CSE 357 Human-Computer Interaction
- CSE 453 Computer Graphics
- CSE 466 Information Systems Security
- CSE 451/452 Profession Seminar I-II
- CSE 454 Career Preparation Study
- CSE 459 Engineering Economics
- CSE 461 Business Administration for Eng.
- CSE 468 Engineering & Informatics Ethics
- CSE 470 Informatics Law



Data Science & Image Processing

- CSE 457 Introduction to Data Mining
- CSE 464 Introduction to Data Science
- CSE 465 Introduction to Big Data
- CSE 455 Introduction to Image Processing
- CSE 463 Introduction to Computer Vision



AI & Machine Learning

- CSE 358 Introduction to Artificial Intelligence
- CSE 462 Introduction to Machine Learning
- CSE 474 Introduction to Deep Learning
- CSE 458 Artificial Neural Networks & Applications
- CSE 460 Optimization Theory and Its Techniques



University Electives & Language Pool

Non-departmental electives and the foreign-language offering



University & General Electives

- ENG 211 / 212 Academic English III–IV
- GE 411 Systems Thinking
- GE 412 Innovation and Entrepreneurship
- GE 111 / 105 University Culture / Psychology
- GE 112 / 104 City Culture / Sociology
- GE 211 Social Responsibility & Ethics



Foreign Language Pool

GER 101 / 102

German I–II

5 ECTS

ELG 201–402

German, levels 1–6

3 ECTS

FRC 301–402

French, levels 1–4

3 ECTS

RUS 301–402

Russian, levels 1–4

3 ECTS

Languages and levels are chosen from the Language Pool (Fall / Spring).



Labs, Internship & Internationalisation

Hands-on infrastructure and pathways beyond the classroom



Computer Lab

Equipped software laboratory for applied courses



Physics Lab

Experiment infrastructure supporting basic-science courses



Digital Design Studio

Studio environment for design and project work



Mandatory Internship (×2)

Industry experience via Internship Work I & II



Erasmus+ Mobility

International exchange through bilateral agreements



Career Preparation

Profession seminars and career-preparation study



The Program in Numbers

Key figures of the 2024–2025 curriculum

60

Total Courses

36 compulsory / 24 elective

40%

Elective Rate

8 university + 16 departmental

240

Total ECTS

30 ECTS × 8 semesters

161

Local Credits

$C = T + 0.5 \times P$

144

Theoretical Hours

weekly total

34

Practice Hours

laboratory / applied

178

Workload Hours

total course load

8

Semesters

4 years + prep.

Class hours apply to every week of the relevant semester. | Source: 2024–2025 curriculum.



SUMMARY

Why Computer Engineering at Alanya University?



English-Medium

An internationally-oriented English B.Sc. program



Modern Curriculum

AI, data-science and software-focused electives



Rising Achievement

The university's highest base-score program



Strong Faculty

A professor, faculty members and research assistants