ISTANBUL GELISIM UNIVERSITY SOFTWARE ENGINEERING

THE WORLD OF SOFTWARE

Software engineering is a discipline that encompasses the development and maintenance of software systems, which form the digital backbone of our modern world. Software engineers contribute to the tech ecosystem by designing software solutions tailored to users' needs, writing code, and performing system integrations. This profession requires strong problem-solving skills, creativity, and analytical thinking.Software engineers can work across a wide range of fields—from game development to artificial intelligence, data analytics to cybersecurity. In today's rapidly evolving technological landscape, software engineers play a vital role in supporting the digital transformation of businesses and individuals by producing innovative solutions.

YAZILIM MÜHENDİSLİĞİ

SOFTWARE ENGINEERING AT IGU

The goal of the department is to raise students who:
•Can analyze, evaluate, and interpret theoretical topics in the field of Computer Science,
•Effectively apply scientific research methods and IT applications in their work,
•Conduct competent studies based on their theoretical knowledge,
•And develop applicable solutions for real-world problems.

OUR MISSION

The Software Engineering Department aims to train individuals who can manage software development processes efficiently, produce innovative solutions, adhere to ethical values, and embrace lifelong learning.By offering a contemporary engineering education, the department enhances students' analytical thinking, problem-solving, and project management skills.Furthermore, by providing applied training in collaboration with the industry, the department facilitates students' adaptation to the professional world after graduation.

OUR VISION

The Software Engineering Department aims to be a reputable academic unit that trains engineers who can produce pioneering, innovative, and sustainable solutions in the field of software and IT technologies at national and international levels.The department continually develops its education and research activities to train engineers specialized in advanced software technologies, artificial intelligence, big data, cybersecurity, and the Internet of Things (IoT)..

UNDERGRADUATE PROGRAM

The Software Engineering Department offers both Turkish and English programs.The curriculum is aligned with the ECTS system and consists of 8 semesters.It includes core science courses, departmental courses, technical electives, social electives, and external electives, along with two mandatory summer internships.

Compulsory courses provide students with fundamental professional knowledge, while electives allow them to pursue their individual interests.The department admitted its first students in the 2021–2022 academic year and will graduate its first cohort in 2024–2025.

SOFTWARE ENGINEERING

ACADEMIC STAFF

Head of Department:
Dr. Serkan GÖNEN

Assoc. Prof. Dr.
Mehmet Fatih TÜYSÜZ

Dr. Deniz DAHMAN

Dr. Ziya Gökalp ERSAN

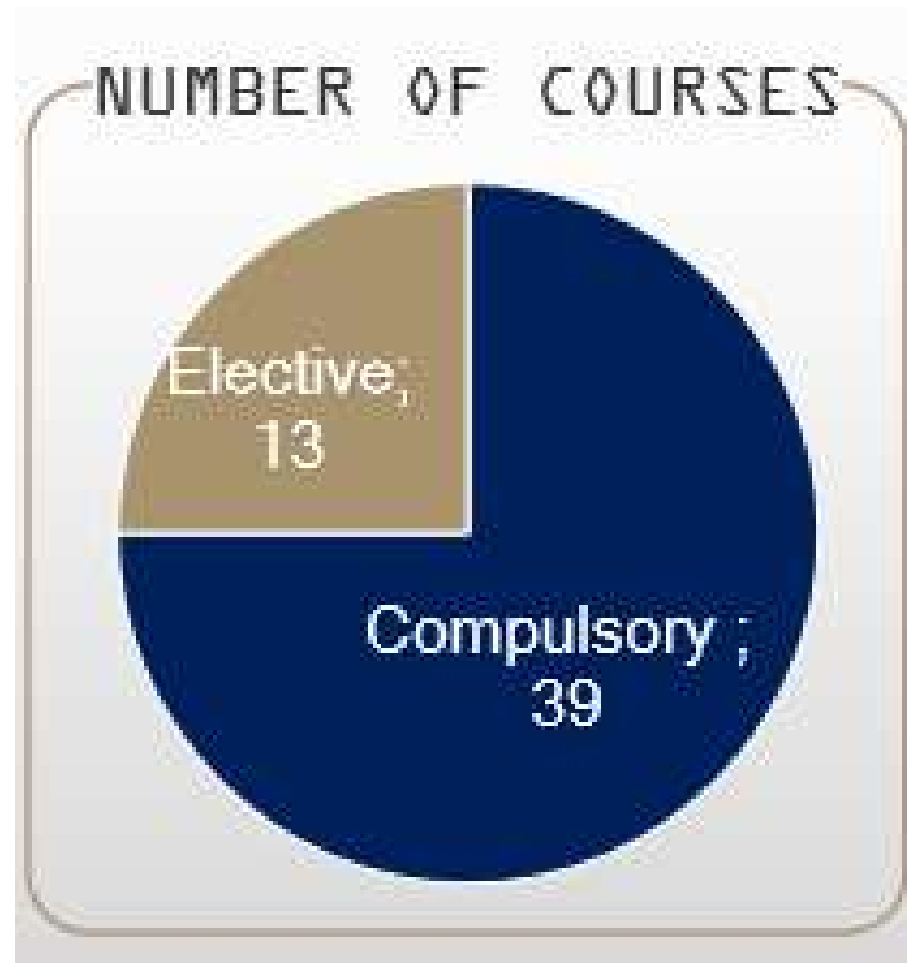Dr. Mehmet ARSLAN

Res. Assist. Saim
HATİPOĞLU

Res.Assist.
Sevcan BULUT

CURRICULUM

To graduate from Istanbul Gelişim University's Faculty of Engineering and Architecture, Software Engineering Department, students must complete a total of 152 credits and 240 ECTS.In the 1st and 2nd years, students mainly study programming and basic science courses. In the 3rd and 4th years, they focus on elective courses and capstone projects tailored to their desired career paths.
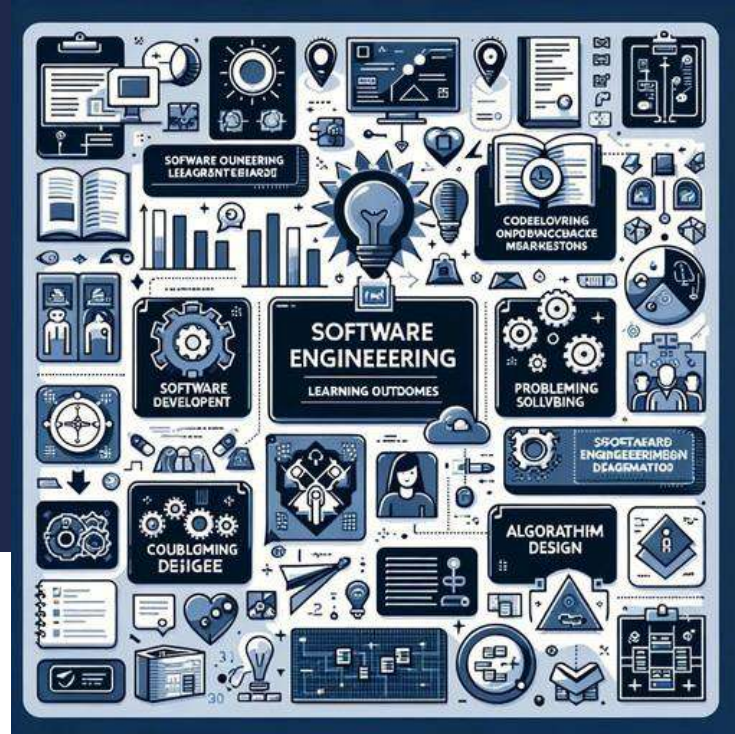
NUMBER OF COURSES

Elective;
13

Compulsory ;
39

- Mobile Programming
- Introduction to Artificial Intelligence
- Machine Learning
- Data Mining
- Cryptography
- Cybersecurity

- Network Technologies and Operating Systems
- Artificial Neural Networks
- Database Management
- Internet and Web Programming

SOFTWARE ENGINEERING

CREDIT DISTR Grafik Alanı
- Compulsory Vocational Courses
- Elective Vocational Courses
- Basic Science Courses
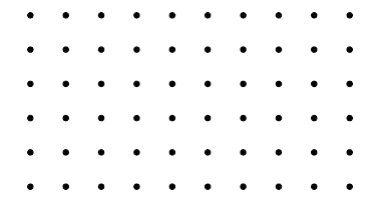- Social Elective Courses

46%
22%
25%

LEARNING OUTCOMES

☑ Ability to identify, formulate, and solve complex engineering problems based on the principles of engineering, science, and mathematics.

☑ Ability to apply engineering design to produce solutions that meet specified needs considering public health, safety, welfare, and global, cultural, social, environmental, and economic factors.
Çeşitli paydaşlarla etkili bir şekilde iletişim kurma becerisi

☑ Ability to communicate effectively with a range of audiences.

☑ Ability to recognize ethical and professional responsibilities and make informed decisions considering the global, economic, environmental, and societal impacts of engineering solutions.

☑ Ability to function effectively on a team that provides leadership, creates a collaborative and inclusive environment, sets goals, plans tasks, and meets objectives.

LABORATORIES

The department offers a contemporary engineering education closely aligned with scientific and technological developments.

The faculty hosts 11 computer laboratories, all designed for comprehensive training in both hardware and software.

FIRST STEP INTO THE INDUSTRY: INTERNSHIP!

Students must successfully complete two mandatory internships of 30 working days each.The first internship is typically done after the second year and the second after the third year.
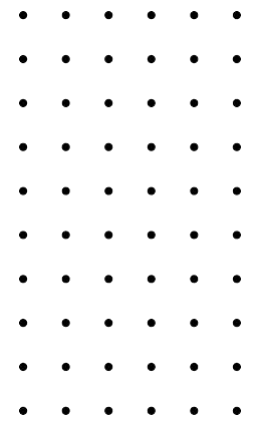
Gaining experience in different sectors during internships plays a crucial role in developing students' technical skills and identifying their industry interests.

Our goal is to equip students with interdisciplinary skills so they can apply software engineering knowledge to real-world problems.
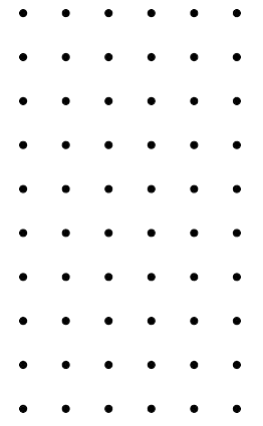
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The aim of the DMP is to allow academically successful students to study in a second major and earn a second degree free of charge.Students who rank in the top 20% of their cohort and have a GPA of at least 2.72 out of 4.00 can enroll in a second major program.

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ÇİFT ANADAL

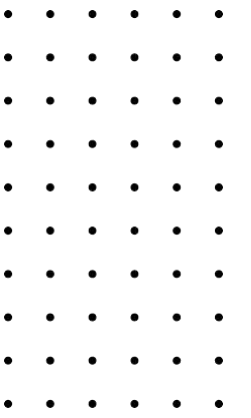Available DMP Options for Software Engineering Students

- Industrial Engineering

- Electrical – Electronics Engineering

- Mechatronics Engineering

- Aeronautical Engineering

ERASMUS+ PROGRAM

The Erasmus+ Program (European Region Action Scheme for the Mobility of University Students) has facilitated international student exchanges since 1987.Through Erasmus+, you can study in another European country for 3-12 months and receive a grant from the EU during your exchange.The courses you complete abroad will be accredited upon your return, enabling you to study abroad for one or two semesters without delaying your graduation.In addition to study mobility, students can also benefit from Erasmus+ internship mobility.

- Haute Ecole Libre de Bruxelles-Ilya Prigogine Belçika
- International University of Vision Makedonya
- Universitatea Nationala de Stiinta si Tehnologie Politehnica Bucuresti Romanya
- Technical University of Sofia Bulgaristan
- Todor Kableshkov University of Transport Bulgaristan
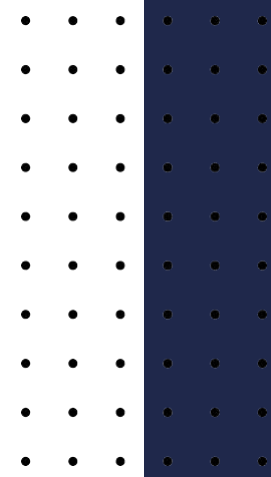
College of Dunaujvaros Macaristan

- Bronislaw Markiewicz State Higher School of Technology and Economics in Jaroslaw Polonya
- Radom Academy of Economics Polonya
- University of Beira Interior Portekiz
- Stefan Cel Mare University of Suceava Romanya
- Technical University of Sofia Bulgaristan
- University of American College Skopje Makedonya
- Univerzitet Singidunum Sırbistan

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CAREER OPPORTUNITIES

☑ Software Development: Software engineers develop computer programs and applications. From large tech companies to startups, many businesses require software developers.

☑ Data Science: Data scientists analyze large datasets to extract meaningful insights. They support strategic decision-making by utilizing technologies like machine learning and artificial intelligence.

☑ Cybersecurity: Cybersecurity specialists protect computer systems and networks against threats. They develop security policies and design defense strategies.

☑ Artificial Intelligence: AI engineers create algorithms that enable machines to perform human-like tasks. This field includes applications such as automation and natural language processing.

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SECTORS WHERE OUR GRADUATES CAN WORK

- Information and Communication Technologies
- Finance and Banking
- Healthcare
- E-Commerce and Retail
- Automotive and Transportation
- Aviation and Defense Industry
- Public Sector and Government Institutions
- Education
- Entertainment and Media

- Science and R&D
- Construction and Architecture
- Manufacturing and Industrial Automation
- Energy and Environment
- Security and Defense
- Marketing and Advertising
- Data Science and Artificial Intelligence

DEPARTMENTAL EVENTS

- CyberShield Innovators: Shaping the Future of Digital SecurityIn collaboration with the Germany-based Proficiency Institute and supported by the European Institute of Innovation and Technology (EIT), Istanbul Gelişim University has launched the "CyberShield Innovators" program, offering high-quality training in cybersecurity. The participation of the Computer Engineering Department in this prestigious program provides students access to cutting-edge technologies, an international learning environment, and global career development opportunities.Date: 01/06/2025

- BİLMÖK 2024 The "National Computer Engineering Students Congress" (BİLMÖK), focusing on the Future of Information Technologies, was hosted by Istanbul Gelişim University on March 9-10. This two-day event brought together computer engineering students and leading industry professionals.Date: 09/03/2024

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MORE EVENTS ORGANIZED BY THE DEPARTMENT

- IGUCTF'24A comprehensive information security competition known as a Capture The Flag (CTF) event, offering participants a platform to practice and enhance their skills in various cybersecurity topics.(Organized by the Cybersecurity Applications Club)Date: 22/06/2024

- Reverse Software Engineering 101Focused on reverse software engineering, this event offers students a chance to develop skills in this specialized area.(Cybersecurity Applications Club)Date: 19/05/2024

- Cloud 10115:00–15:30: Cloud and Network TechnologiesPurpose: To introduce fundamental concepts of cloud computing and its significance, explore widely used cloud technologies, and examine their impact on business. It also discusses how network technologies integrate with cloud computing and the advantages this provides to enterprises.(Cybersecurity Applications Club / Google Developer Student Club)Date: 29/12/2023

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TERSİNE MÜHENDİSLİK 101

FATİH YILMAZ

25 MAYIS   CUMARTESİ   SAAT : 19.00

"Görünmezden görünüre, tersine mühendislikle ilham ver!"

Google Meet

MÜHENDİSLİK
VE
MİMARLIK
FAKÜLTESİ

İSTANBUL GELİŞİM ÜNİVERSİTESİ
2008

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