



ISTANBUL  
**GELISIM**  
**UNIVERSITY**

**SOFTWARE ENGINEERING**

# SOFTWARE WORLD

Software engineering is a discipline that covers the development and maintenance of software that forms the digital backbone of our modern world. Software engineers contribute to the world of technology by designing software solutions that meet the needs of users, writing code and performing system integrations. This profession requires problem-solving skills, creativity and analytical thinking. Software engineers can work in a wide range of fields, from game development to artificial intelligence, data analytics to cyber security. In today's rapidly developing technological world, software engineers support the digital transformation processes of businesses and individuals by producing innovative solutions.





## **SOFTWARE IN GELISIM**

### Aim of the Department

To educate students who can theoretically analyze, evaluate and interpret the topics in the field of Computer Science, apply scientific research methods and information technology applications effectively in their studies, conduct adequate and competent studies in the field of Computer Science in line with the theoretical knowledge they have acquired, and develop applications for real world problems that can be used with the studies they carry out.





## AKADEMİK KADRO



Head of the Department  
Assist. Prof. Serkan  
GÖNEN (PhD)



Deputy Head of  
Department Assoc. Prof.  
Elham PASHAEI (PhD)



Assoc. Prof. Mehmet  
Fatih TÜYSÜZ (PhD)



Assist Prof. Nihal  
ALTUNTAŞ (PhD)



Assist. Prof. Ziya  
Gökalp ERSAN (PhD)



Assist. Prof. Mehmet  
ARSLAN (PhD)



Research Assistant  
Saim HATİPOĞLU



Research Assistant  
Sevcan BULUT



Research Assistant  
Duygu ÇAĞLAR ÇAY

# PROGRAM AND CURRICULUM

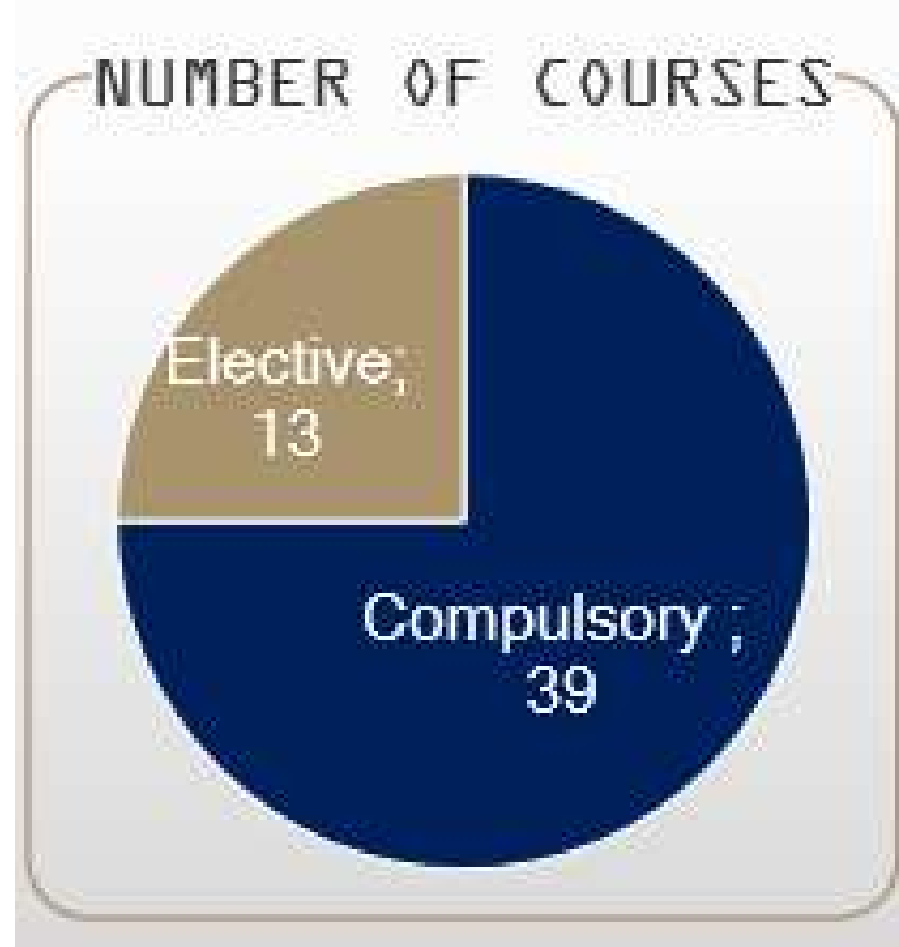
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In order to graduate from Istanbul Gelisim University, Faculty of Engineering and Architecture, Department of Software Engineering, a total course load of 152 credits and 256 ECTS must be completed.

In the 1st and 2nd year, our students are mainly educated in 'Programming and Basic Science Courses'. In the 3rd and 4th year, they complete their education life with 'Graduation Projects' and field courses for the fields they want to work in.

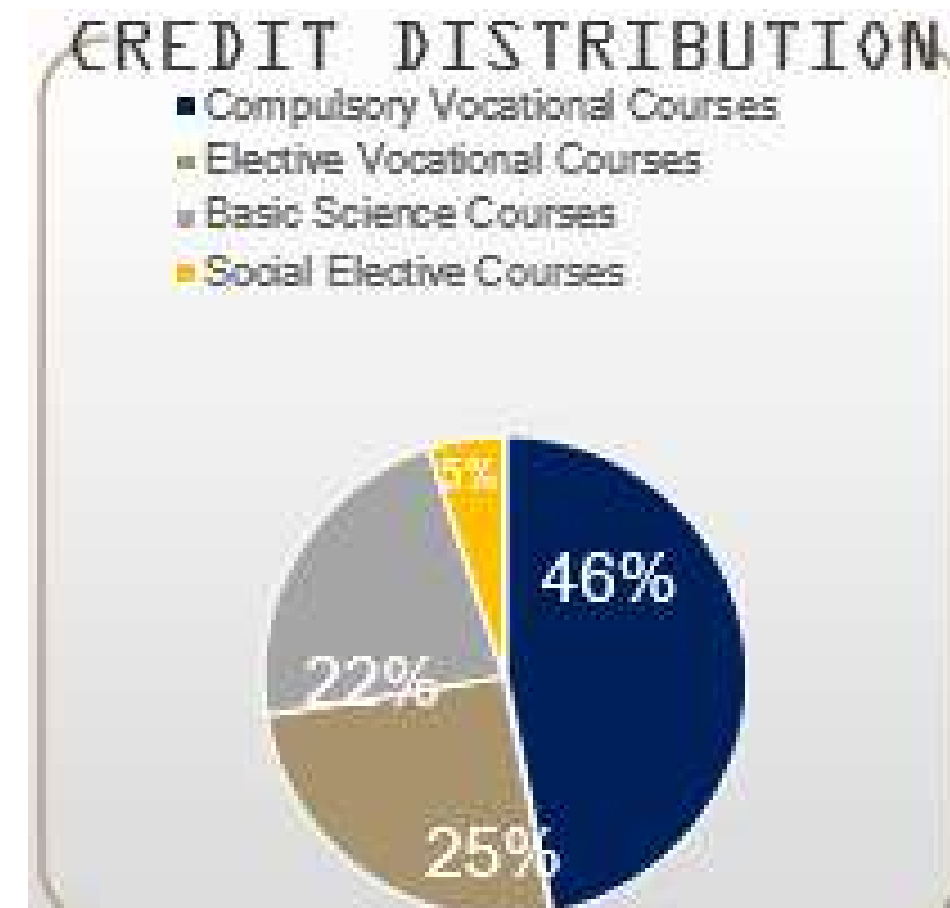


## SOME FIELD COURSES

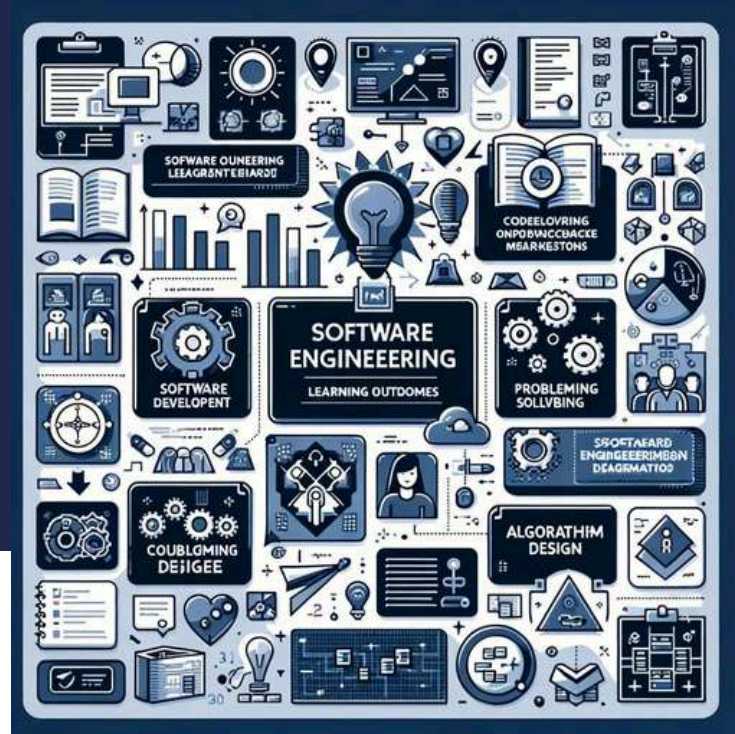


- Cyber Security
- Network Technologies and Operating Systems
- Artificial Neural Networks
- Database Management
- Internet and Web Programming

- Mobile Programming
- Introduction to Artificial Intelligence
- Machine Learning
- Data Mining
- Encryption







## LEARNING OUTCOMES

- ☑ Ability to identify, formulate and solve complex engineering problems based on fundamentals of engineering, science and mathematics
- ☑ Ability to apply engineering design to produce solutions that meet specific needs, taking into account global, cultural, social, environmental and economic factors, as well as public health, safety and welfare
- ☑ Ability to communicate effectively with various stakeholders
- ☑ Ability to recognize ethical and professional responsibilities in engineering and to make informed decisions considering the impact of engineering solutions on global, economic, environmental and societal contexts
- ☑ Ability to work effectively in a team whose members provide co-leadership, create a collaborative and inclusive environment, set goals, plan tasks and meet objectives

# LABORATORIES

There are 11 computer laboratories in our faculty. These laboratories are designed to provide comprehensive training in hardware and software.



The Department of Software Engineering provides a modern engineering education by closely following scientific and technological developments.

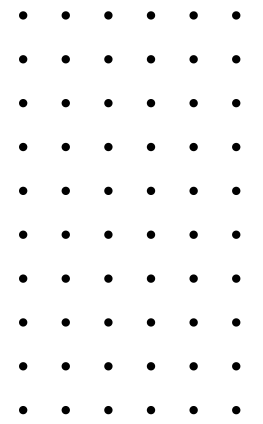




## DOUBLE MAJOR AND MINOR



The purpose of the double major program is to enable students who have successfully completed their major programs to study in a second major program for FREE. Students who have a GPA of 2.72 out of 4.00 in their major program and who are in the top 20% of their undergraduate/graduate program can start the second major diploma program free of charge.





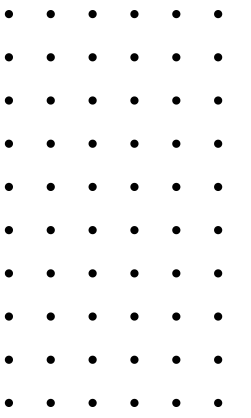


## ERASMUS

The Erasmus (European Region Action Scheme for the Mobility of University Students) Program is a student exchange program between European countries and has been running since 1987.

With the Erasmus Program, you can continue your education in another country for 3-12 months. During this exchange period, the European Union supports you with a grant in line with its resources. The courses you will take during the program will be adjusted when you return, so you can spend 1 or 2 semesters in another European country without losing a semester.

In addition to the study mobility program, our students can benefit from the Erasmus Program for internships.





## • PARTNER UNIVERSITIES

- 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 Kableskov 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





## CAREER OPPORTUNITIES



- ☑ Software Development: Software engineers develop computer programs and applications. Many businesses, from large technology firms to start-ups, need software developers.
- ☑ Data Science: Data scientists analyze large data sets to extract meaningful insights. They help make strategic decisions using technologies such as machine learning and artificial intelligence.
- ☑ Cyber Security: Cybersecurity experts protect computer systems and networks against threats. They develop security policies and create defense strategies.
- ☑ Artificial Intelligence: Artificial intelligence engineers develop algorithms for machines to perform human-like tasks. This field has application areas such as automation and natural language processing.



## ACTIVITIES ORGANIZED IN THE DEPARTMENT

- IGUCTF'24/IGUCTF'24 is a Capture The Flag (CTF) event, a comprehensive information security competition. This event provides a platform for participants to increase practice and improve their skills in various information security topics. (Cybersecurity Applications Club) Date: 22/06/2024
- Reverse Software Engineering 101/This event will focus on reverse software engineering and will provide an opportunity for students to develop themselves in this field. (Cybersecurity Applications Club) Date: 19/05/2024
- Cloud 101/ 15.00-15.30: Cloud Technologies and Network Technologies Objective: To explain the basic concepts and importance of cloud computing. To examine the cloud technologies that are widely used today and their impact on the business world. To discuss how network technologies are integrated with cloud computing and the advantages of this integration for businesses.(Cyber Security Applications Club/Google Developer Community) Date: 29/12/2023



# Faculty of Engineering and Architecture

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## SOFTWARE ENGINEERING DEPARTMENT