

General Information About the Faculty

The Faculty of Engineering at Istinye University was founded to train the next generation of engineers for Turkey and to create a premier institution in engineering education and research. Established by the founders of Liv Hospital and Medical Park, the university aims to rank among the most prestigious universities in Turkey and worldwide.

Our faculty collaborates across departments to foster an integrated approach to research and education, supporting innovation and excellence as Istinye University moves toward its ultimate goals.

Software Engineering

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General Information

The Software Engineering program aims to provide students with a strong theoretical and practical foundation, preparing them to excel in modern software development processes. The curriculum imparts fundamental knowledge in computer science, algorithms, data structures, and software engineering principles, while also fostering skills in project management, software design, and quality assurance. Furthermore, students are encouraged to cultivate innovative and creative thinking abilities to adapt to the constantly evolving technological landscape.



Career Prospects After Graduation

Graduates have diverse career opportunities in fields such as software development, systems analysis and design, artificial intelligence, and data engineering. With the high demand in the software engineering sector, they are well-prepared to work for local and international technology companies or even establish their own software enterprises. Armed with advanced software skills and strong problem-solving abilities, graduates are exceptionally well-equipped to excel as leaders in the IT industry.



What Makes the Department of Software Engineering Unique?

Practical projects designed to equip students with software development skills aligned with industry standards.

A comprehensive curriculum enhanced by a highly qualified academic team.

Provides students with a broad technical knowledge base, emphasizing emerging technologies, artificial intelligence, and big data.

An educational curriculum recognized internationally.

A diverse selection of elective courses and research opportunities for students aiming to specialize in various areas of software engineering.

Real-world experience opportunities through projects, hackathons, and other extracurricular activities.



General Information

Rooted in the foundations of the First Industrial Revolution, Industrial Engineering focuses on the design, implementation, and improvement of integrated and complex systems comprising people, data, equipment, energy, and materials in today's Industry 4.0 era. Embracing interdisciplinary collaboration, industrial engineers graduate with essential skills such as analytical thinking, systems-based approaches, modeling, and optimization. These skills enable them to specialize in various fields, including manufacturing, healthcare, information technology, transportation, and financial markets. Solutions developed by industrial engineers significantly contribute to the automation and optimization of processes and systems across these and other domains.

The Industrial Engineering Department at Istinye University is dedicated to nurturing confident individuals equipped with specialized expertise by offering opportunities for interdisciplinary engagement throughout their education, supported by a flexible curriculum structure.

The department's curriculum starts with a solid foundation in basic sciences, integrated with a rigorous engineering education that develops modern technical skills such as software development, algorithm design, and graphic design. In the following years, students engage with a comprehensive program that allows them to explore core aspects of Industrial Engineering, including production processes, probability and statistics, modeling and optimization, data analytics, engineering economics, system design, quality engineering, and production planning.

Moreover, students have the opportunity to specialize in diverse areas through a broad selection of elective courses, such as supply chain management, logistics planning, artificial intelligence and machine learning, or financial engineering.



Career Prospects After Graduation

Our graduates embark on careers in roles such as engineers, specialists, data scientists, and business analysts across various departments, including Planning, Sales, R&D, Logistics, Human Resources, and Operations Management. Alternatively, they may choose to pursue academic careers or establish their own ventures. The industries employing our graduates cover a broad spectrum, including retail, energy, banking, software development, enterprise resource planning consultancy, airlines, automotive, and home appliances.



What Makes the Department of Industrial Engineering Unique?

Young and highly skilled academic staff.

Broad and diverse academic expertise.

Opportunities for one-on-one project collaboration with students.

Personalized mentorship for students.

Ongoing support and tracking of students after graduation.



General Information

The Istinye University Mechanical Engineering Program is a 4-year program with English as the medium of instruction. In the first year, students take foundational courses in physics, mathematics, computer programming, and computer-aided design, laying the groundwork for their engineering education. In the second and third years, they study core mechanical engineering subjects, including thermodynamics, dynamics, strength of materials, fluid mechanics, manufacturing methods, and machine elements. During the third and fourth years, students enhance their skills in design, analysis, teamwork, and leadership through elective courses tailored to their interests.

Our students are encouraged to focus on research, development, and continuous self-improvement throughout their careers. They are motivated to participate in initiatives that advance the department, faculty, university, and the mechanical engineering profession, while also working on projects aimed at improving societal welfare and fostering global leadership skills.

Students engage in industry-oriented capstone projects that combine experimental and numerical studies with mechanical design. Graduates leave the program with a strong scientific and engineering mindset, a commitment to lifelong learning, excellent communication skills, high ethical standards, and the ability to develop innovative and sustainable technological solutions.



Career Prospects After Graduation

Graduates of the Istinye University Mechanical Engineering Department have access to diverse career opportunities across various industries. They can work in engineering firms operating both locally and globally, as well as in sectors such as automotive, energy, defense, manufacturing, and construction. Armed with the theoretical knowledge and practical experience acquired during their studies, graduates excel in areas such as product design, production processes, mechanical system analysis, and optimization, making them highly sought-after engineers. They also stand out as professionals capable of adapting to new technologies, developing sustainable engineering solutions, and demonstrating leadership.

Istinye University's experienced academic staff and strong industry partnerships offer significant advantages to its graduates in the job market. The department prepares students for their careers through project-based learning, internship programs, and career counseling services. As a result, graduates are well-equipped to implement engineering solutions effectively and assume managerial roles. Additionally, alumni have the opportunity to launch their own ventures or pursue careers in technology and engineering consulting, providing them with greater flexibility and independence in their professional journeys.



What Makes the Department of Mechanical Engineering Unique?

Advanced Laboratory Facilities: Modern and comprehensive labs where students can apply their theoretical knowledge in practice.

Strong Industry Collaborations: Close ties with the industry provide opportunities for internships, projects, and employment.

Innovative Educational Program: Combines theoretical and practical training to lay a solid foundation for students' careers.

Career Counseling and Employment Support: Professional career services that help graduates transition smoothly into the workforce.

Continuously Updated Curriculum: Educational content is regularly updated in line with technological advancements and industry needs.



General Information

Biomedical engineering is an interdisciplinary field that merges engineering principles with biological and medical sciences to solve healthcare challenges. This field develops technological solutions to improve human health, offering diverse opportunities ranging from device design and biomaterial production to medical imaging and tissue engineering. The creation of innovative products, such as prosthetics, implants, and artificial organs, significantly enhances patients' quality of life.

Technological advancements in biomedical engineering have a transformative impact on the healthcare sector. Innovations such as modern biomaterials, advanced imaging devices, and robotic surgical systems are revolutionizing disease diagnosis and treatment. Additionally, research in emerging fields like nanotechnology and genetic engineering is paving the way for personalized medicine and regenerative therapies. This dynamic, ever-evolving discipline is shaping the future of healthcare through multidisciplinary approaches.



Career Prospects After Graduation

Biomedical engineering graduates have diverse career opportunities in the rapidly advancing field of healthcare technologies. They can work in research and development (R&D), design, and production within companies manufacturing medical devices and equipment. Their expertise in areas such as prosthetics, implants, biomaterials, and robotic surgery allows them to contribute to innovative projects. Additionally, they can serve as technical support engineers in hospitals and clinics, managing and maintaining medical devices to improve the efficiency of healthcare services.

Graduates interested in academia can pursue master's or doctoral degrees, leading to careers as researchers or faculty members at universities. Biomedical engineering also offers opportunities across various sectors, including pharmaceutical and biotechnology companies, quality control laboratories, and regulatory agencies. Rapidly growing fields such as artificial intelligence, medical imaging, nanotechnology, and regenerative medicine provide graduates with unique opportunities to shape the future of healthcare technologies.



What Makes the Department of Biomedical Engineering Unique?

A young academic team and faculty members (both national and international) actively engaged in R&D projects.

Opportunities for undergraduate students to manage their own projects (TÜBİTAK 2209A/B and TÜSEB programs).

Experienced faculty members with entrepreneurial backgrounds, including company ownership and expertise in supporting young entrepreneurs.

ERASMUS exchange opportunities for international academic and cultural experiences.

Highly qualified faculty, graduates of Turkey's top universities and/or holders of Ph.D. degrees from prestigious international institutions.

An above-average number of academics involved in experimental research and project work.



General Information

Computer engineering focuses on the design, development, analysis, and management of computer systems. It combines the fundamental elements of software and hardware to deliver innovative solutions across various technological fields. Key areas of study in computer engineering include programming, algorithm design, data structures, artificial intelligence, network security, and embedded systems.

Computer engineering education integrates theoretical knowledge with practical experience. Along with studying basic sciences such as physics and mathematics, students gain technical skills in fields like software development, data analytics, and network architecture.



Career Prospects After Graduation

Computer engineering graduates can pursue job opportunities in various fields, including software engineering, data science, cybersecurity, artificial intelligence, machine learning, and cloud computing. Additionally, technology-focused roles in industries such as finance, healthcare, automotive, e-commerce, and gaming provide platforms for graduates to apply their skills effectively. They also play pivotal roles in areas such as software development, data analysis, and system integration.



What Makes the Department of Computer Engineering Unique?

Analytical Thinking Skills: The ability to analyze problems and develop optimal solutions.

Creativity: The capacity to innovate and approach problems from different perspectives to find solutions.

Attention to Detail: Precision and care in coding, system design, and debugging processes.

Advanced Technical Knowledge: A deep understanding of programming languages, algorithms, databases, and network systems.

Teamwork Skills: The ability to collaborate effectively with engineers and experts on various projects.

Openness to Learning: A willingness to continually acquire new knowledge to adapt to rapid technological advancements.

Problem-Solving Ability: The skill to develop logical, systematic, and innovative methods for addressing complex problems.

Mathematics



General Information

The Mathematics Department at Istinye University was established to create a common language and set of tools for researchers and educators in the Faculties of Medicine, Pharmacy, Engineering, and Social Sciences. Researchers at Istinye University particularly favor computational methods for solving research problems. For this reason, the Mathematics Department focuses closely on algorithms, algebra, graph theory, and the numerical solutions of ordinary and partial differential equations.

Thanks to a collaborative culture fostered among the faculties, members of the Mathematics Department have developed undergraduate courses in partnership with researchers and educators from across the university.



Career Prospects After Graduation

Graduates of the Mathematics Department can contribute to national and international projects related to mathematics, engage in original and interdisciplinary research activities thanks to their strong scientific foundation, and pursue master's and doctoral programs at an international level. In addition to advancing in the field of mathematics, students can explore professional opportunities in related sectors through minor or double major programs in departments such as Software Engineering, Economics, and Business Administration during their undergraduate studies.



What Makes the Department of Mathematics Unique?

The faculty members of the Mathematics Department are researchers with high potential for conducting research and projects and possess international recognition.

Molecular Biology



General Information

Molecular biology and genetics is a crucial scientific field that investigates the fundamental molecules and pathways that constitute life—such as DNA, RNA, proteins, and metabolites—while exploring the interactions among these molecules to understand entire living systems. Today, molecular biology and genetics, through the application of high-throughput omics and cellular technologies, provides solutions for diagnosing and treating significant issues such as monogenic and multifactorial hereditary traits, cancer, and aging.

Furthermore, it enables diverse applications, limited only by imagination, such as breeding high-quality plants and animals or utilizing microorganisms to address environmental challenges. With current technologies, the genetic material of living organisms can be modified for specific purposes, either through gene transfers or molecular tools like CRISPR-Cas9, Cpf1, or prime editing.

Key research areas include the diagnosis and treatment of genetic and epigenetic traits, the creation of disease models in animal systems, tailoring plant traits for specific objectives, and producing desired secondary metabolites, particularly in plant and microorganism systems.



Career Prospects After Graduation

Our graduates can conduct research and build careers in various fields of health and biotechnology. In addition to those working in genetic diagnostic laboratories, we have graduates who excel in entrepreneurial skills and actively participate in start-up projects. Furthermore, a significant number of our graduates are pursuing their education at the master's level.



What Makes the Department of Molecular Biology Unique?

Opportunities to work/research in healthcare: This field is particularly appealing to young individuals who did not choose or gain admission to medical school but wish to pursue research in areas such as disease diagnosis, treatment, and drug design.

Diverse areas of specialization: It encompasses a wide range of specialties, offering extensive research and educational opportunities.

Multidisciplinary structure: Provides opportunities for collaboration with various departments, particularly within the Faculties of Medicine, Pharmacy, Engineering, and Natural Sciences.

Wet and in silico research opportunities: Alongside research in wet laboratories, the availability of in silico research options enables individuals with reservations about working in a lab environment to still actively engage in the field.

Electrical and Electronics Engineering



General Information

The Department of Electrical and Electronics Engineering (EEE) at Istinye University's Faculty of Engineering and Natural Sciences launched its first undergraduate program in Electrical and Electronics Engineering in 2018. The department features highly knowledgeable and dedicated academics who provide students with a strong combination of theoretical and practical knowledge in electrical and electronics engineering. The department's fully equipped laboratories enhance the learning process, keep it current, and expose students to professional and research environments in the field, fostering innovative approaches and broadening their perspectives.

The primary objectives of the department are:

To deliver internationally recognized engineering education, producing highly qualified, objective, confident, creative, and entrepreneurial graduates.

To achieve excellence in engineering education and applied research.

To make engineering education more relevant to the local context.

To strengthen collaborations with industrial organizations to develop applied research solutions for technical, problems on a national scale.



Career Prospects After Graduation

The department offers an undergraduate program in Electrical and Electronics Engineering with core specializations in Analog and Digital Electronic Circuits, Communication Systems, Electrical Energy Systems, and Control and Automation. The curriculum is designed according to international education standards, combining theoretical knowledge with practical experience to train professionals equipped with the skills and competencies needed to tackle modern technological challenges. Graduates of Istinye University's EEE department, equipped with up-to-date knowledge, can secure employment in various sectors within public and private organizations.

Potential career fields for graduates include:

- Electrical distribution companies
- Energy firms
- The Ministry of Energy and Natural Resources
- Television and radio stations
- The automotive industry
- Robotics
- Communication (telecommunication) systems
- Control and automation sectors
- Manufacturing factories, and more.



What Makes the Department of Electrical and Electronics Engineering Unique?

It features highly knowledgeable and dedicated academics.

It includes various educational laboratories equipped with modern devices.

It offers extensive opportunities for conducting projects and research work.

Chemistry



General Information

The Department of Chemistry offers a dynamic and innovative program designed to teach students the fundamental principles and applications of modern chemistry. Our department provides an education enriched with both theoretical knowledge and modern laboratory experiences, helping students develop analytical thinking and problem-solving skills. With our research-focused approach, students stay up-to-date on the latest developments in the field of chemistry and have opportunities to apply this knowledge in practice. Additionally, through multidisciplinary collaboration opportunities, our students broaden their knowledge and skills across different fields, gaining a comprehensive perspective. As the Department of Chemistry, we aim to foster scientific curiosity in our students and prepare them to become the leading scientists and professionals of the future.



Career Prospects After Graduation

Our department offers personalized mentoring and guidance to students through its expert and experienced academic staff. Additionally, through national and international collaborations, we provide students with an extensive network and diverse career opportunities. As the Department of Chemistry, we are proud to support your scientific curiosity and look forward to seeing you among the leading scientists and professionals of the future.



What Makes the Department of Chemistry Unique?

Our Chemistry Department distinguishes itself with its innovative and comprehensive educational programs. With modern laboratories and advanced research facilities, students can apply their theoretical knowledge in practice.

Our department places a strong emphasis on interdisciplinary studies, encouraging the integration of chemistry with other scientific fields such as biology, physics, and engineering.

We provide undergraduate students with opportunities to participate in projects and work in research and development (R&D) laboratories, even at the undergraduate level. This enables students to gain early research experience and apply their scientific curiosity in practice.

Our expert academic staff, internationally recognized in their fields, offer personalized mentoring and guidance to students.