

Istanbul Technical University - Faculty of Science and Letters

The Faculty of Science and Letters consists of Mathematics, Physics, Chemistry, Molecular Biology and Genetics and Sociology Departments and, as is the case in all major technical universities, has the important task of providing training in elementary basic science education to nonmajors in their first and second years at the university. It also provides Humanities and Social Sciences courses for the whole university.

The faculty's courses and general contributions to the university's other faculties can be summed up in three main groups. The first group consists of foundational science courses taken by freshmen students from almost all departments. These courses are offered by the Departments of Mathematics, Physics, and Chemistry. While providing a scientific foundation to engineering students, they also support the further development of problem solving skills and analytical thinking. The second group of courses aims to support other departments with elective courses or classes designed for specific departments. Finally, there are elective Humanities and Social Sciences courses offered by the Sociology Department. The annual number of students registered for the above courses surpasses 30,000 students.

In the first group, the Mathematics Department offers two sequential calculus courses, namely MAT103-104 (course language Turkish) or MAT103E-104E (course language English) – 4 credits. Each year, over 9100 freshmen attend these courses. Calculus I course MAT103 covers calculus of single variable functions, differential and integral calculus with applications. Calculus II course MAT104 covers infinite series, calculus of vectors, multivariable functions and multiple integrals. The two-semester long Calculus sequence is mandatory throughout the university with the exception of the Faculty of Architecture, which requires only the single variable Calculus I. The Calculus sequence is usually completed in the first year and, for many departments, is a prerequisite for other courses.

Within the first group, the Physics Department offers two courses. Physics I (covers mechanics) and Physics II (covers electricity and magnetism) courses: FIZ101-102 (course language Turkish) or FIZ101E-102E (course language English) are required courses in the curriculum of all the engineering departments and are offered to freshmen in both Fall and Spring terms. Each year, over 8300 freshmen attend these courses.

The Chemistry Department offers the General Chemistry I course KIM101 (course language Turkish) or KIM101E (course language English), a required course in the curriculum of all the engineering departments, to freshmen in both Fall and Spring terms. Each year, over 4200 freshmen attend these courses which cover the principles of chemistry.

Since 2003, the Faculty of Science and Letters has given the above courses with parallel sections; i.e. students are free to register for any section of their required course regardless of their department and program. All students registered in the same course, regardless of the course language, take the same exams on the same day, and are considered in the same grading distribution.

Each semester, a course coordinator is appointed to each course. The course coordinator is responsible for planning and coordinating the delivery of the course and for ensuring its appropriate assessment together with the relevant Head of Department, who has the final responsibility. The coordinator is also responsible for organizing the grading of examination papers.

Lecturers are available in their offices for a minimum of two hours per week to address student questions. Each semester, an exam committee is appointed for each course. Each committee consist of faculty members that are not assigned to that particular course. The committee assists with determining exam's content, writing new exam questions, and editing exam questions to maintain a high standard of exam quality.

The second group consists of 20 courses offered by the Physics, Chemistry, and Molecular Biology and Genetics Departments. Each year, over 3000 students attend these courses.

The third group consists of elective courses offered to all undergraduate students by the Sociology Department with the code ITB. Each term, the department offers about 60 courses, including different sections of the same course. These courses aim at enhancing general knowledge and learning capacity of students.

All ITB courses are offered as social science and humanities electives for undergraduate students. There is no department restriction on these courses; i.e. students from all departments are free to choose any ITB course they wish. The number of ITB courses required of each student varies according to the graduation scheme of each department.

Including different sections of the same course, the department offers more than 60 courses per semester which serve approximately 1,600 students. All ITB courses are offered in both English and Turkish.