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1995 - 1996
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   Nur Sok. 9/11 Beyazıt 212. 517 2014-16
3. Faculty of Economic and Administrative Sciences,
   Bahçeşehir 212. 507 9925
4. Institute of Social Sciences,
   Ressam Namık İsmail Sok.
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   Bahçeşehir 212. 506 4724
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   Sok. No. 6 Nişantaşı 212. 241 2057-59
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   Haydarpaşa 216. 414 2962
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   Department of Public Administration
   (French medium), Tarabya 212. 223 1237
8. Department of Physical Education and Sports,
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9. Faculty of Economic and Administrative Sciences,
   Dep. of Labor Economics,
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10. Institute of Banking and Insurance, Anadoluhisar Campus
    212. 231 9030
11. Faculty of Fine Arts, Küçük Çamlıca, Acıbadem Cad.
    81018 Kadıköy 216. 326 2667
12. Faculty of Divinity,
    Tophanelioglu Cad.
    Bağlarbaşı-Üsküdar 216. 310 5311
13. Vocational School of Divinity,
    Bağlarbaşı-Üsküdar 216. 310 5311
14. University Hospital,
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    No. 13-15 81990
    Altunizade Üsküdar 216. 327 1010
15. Faculty of Law, Tıbbiye Cad.
    81014 Haydarpaşa 216. 338 8903
16. Faculty of Medicine,
    Haydarpaşa 216. 336 0212
17. School of Health Related Services, Haydarpaşa
    81326 Haydarpaşa 216. 336 4766
18. Institute of Health Sciences,
    Haydarpaşa 216. 414 4423
19. Atatürk Faculty of Education, Göztepe
    Campus 81040 Kadıköy 216. 345 9090-2
20. Faculty of Engineering,
    Göztepe Campus 81040
    Kadıköy 216. 347 9403
21. Department of Foreign Languages, Göztepe
    Campus 81040 Kadıköy 216. 345 9090
22. Faculty of Economic and Administrative Sciences,
    English medium
    Departments 216. 336 5273
23. European Community Institute, Jean Monnet
    Building, Göztepe Campus 81040
    216. 338 4196
24. Institute of Science,
    Göztepe Campus 81040
    216. 345 9090
25. ÖZmen Akar Women's Dormitory, Göztepe Campus 216. 336 8006
26. Guest House, Göztepe
    Campus 81040
    216. 349 1679
27. School of Technical Sciences, Göztepe
    Campus 81040 216. 418 2504
28. Institute of Turkology,
    Göztepe Campus 81040
    216. 345 9090/242
29. Faculty of Arts and Sciences, Göztepe
    Campus 81040
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MARMARA UNIVERSITY

CATALOG
OF
UNDERGRADUATE
PROGRAMS

1995 - 1996
Mustafa Kemal ATATÜRK
Samsun, 19 Mayıs 1919
Dünyada her şey için, maddiyet için, maneviyet için, muavvakiyet için en hakiki mürşid ilimdir, fendir. İlim ve fennin hariçinde mürşid aramak gafletir, cehalettir, delalettir. Yalnız ilmin ve fennin yaşadığımız her dakikadaki safhalarının tekmülünü idrak etmek ve terakkiyattını zamanla takip eylemek şarttır*

22 Eylül 1924, Samsun
Samsun'lu Öğretmenlere Hitaben

*"For everything in the world, for material ends, for moral ends, for success the greatest guiding force is knowledge and science. To look for any other guidance outside knowledge and science would be wrong, it would be ignorance. However, as long as we live, we must follow developments in knowledge and science and be aware of their progress through time".

22 September 1924, Samsun
Address to Teachers at Samsun

Mustafa Kemal ATATÜRK
"Hiç bir zaman hatırlarınızdan çıkmasın ki, Cumhuriyet sizden 'fikri hür, vicdani hür, ifrani hür' nesiller ister".

25 Ağustos 1924, Ankara
Muallimler Birliği Kongresi

"We should never forget that the Republic wants generations with independent minds, free consciences and unfettered knowledge".

25 Ağustos 1924, Ankara
Teachers' Association Congress

Mustafa Kemal ATATÜRK
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FOREWORD

We are happy to present the first English catalog of Marmara University.

Marmara University was first founded in 1883 as "The Hamidiye School of Higher Commercial Education" and since its inception it has been prominent in pioneering education in commercial studies at undergraduate and graduate levels. The opening of the school was performed by the Minister of Commerce, Abdullah Suphi Pasha on 16 January 1883, and on the same day lectures were given by the Minister of Education, Münif Tahir Pasha. The school was originally located at a mansion of Babiali, close to Topkapı Palace.

By the end of the first decade, the school had acquired a high reputation for the standard of its courses and the general educational level of its entrants. This reputation was well founded, as the lecturers were prominent people in the government and industry of the time. The courses were given not only in economics and commerce but also included vocational orientation of the courses. As a result of this, many of the past public figures in Turkish society were graduates of the school and this tradition still continues today.

Throughout its century long history, the school underwent various changes in its name and infrastructure until the foundation of Marmara University: After the establishment of the Higher Education Board (YÖK) in 1981 in Türkiye, the decision was made to found three new universities in İstanbul. Marmara University, which is the largest of these, was founded in 1982 on the premises of the Academy of Commercial and Economics Sciences and it merged with other institutions of higher education.

Presently, in 1995 the University has 13 Faculties, 11 Institutes, 8 Schools of Higher Education and 24 Research Centers. It is the fourth largest university in Türkiye. We have 29 396 undergraduate students, 4365 graduate students, and 3482 students in 2 year programs (a total of 37 243 students). There are 2422 academic and 1240 administrative personnel. According to the general order of the citation index, Marmara University ranks 6th in natural sciences and 2nd in the field of life sciences and medicine among Turkish universities.

Thus, even though the University has a tradition dating back to the nineteenth century, at the same time it is a new, modern and forthcoming university that has grown and spread very rapidly, partly in response to the acute demand for institutions of higher education in an expanding city of presently about 10 million people. Türkiye has a young population. University entrance rests on an extremely competitive national examination system. We
take pride in our students, quite a number of whom rank among the first top
1% nationally.

The diversity of the fields offered at Marmara University makes us one
of the uniquely rich universities in the country. Under one academic roof we
contain the fields of administrative, economic and social sciences, arts and
sciences, communication, divinity, education, engineering, health and
medicine, and law. In an era where trans-disciplinary work is becoming the
desired norm, the extent of scientific fields covered provides an attractive
asset for scholarly work at our University.

Furthermore, in addition to the regular academic programs leading to
BA, BS, MBA, MA, MS. Ph.D diplomas through our faculties, institutes and
schools, we also offer evening courses, summer programs and adult educa-
tion courses for the benefit of the larger community. As it will become ap-
parent to anyone who looks at the range of courses, diplomas and certificates
offered by our university, we not only carry a uniquely wide realm of academ-
ic programs representing the spectrum of contemporary scientific
disciplines; but at the same time our programs range from vocational and
technical training to advanced postgraduate education.

An important characteristic of Marmara University is the diversity of lan-
guages of instruction. Naturally, the main language of instruction is Turkish,
but we also have faculties, departments and units where the medium is
English, French and German. On our part, among other considerations,
this is an outreach effort to facilitate the exchange of international scholarly
co-operation. Students in the non-Turkish medium departments spend one
year in the Language Preparatory Schools to gain enough competence in
the above respective languages before entering their freshman year at the
University.

The unifying element and our common spirit rests on our mutual striving
for excellence in the respective fields; professional ambition and a feeling of
responsibility to our community together with friendliness and co-operation
in professional and human relations. To the above, I may add the spirit of
entrepreneurship. In this respect, we owe a great deal to Professor Orhan
Oğuz, our founding rector who worked hard to give the university its initial
onset in the early 1980s. These qualities have contributed and combined to
make us an institution of higher education that makes a difference in the
community.

The University carries both the advantages and some of the shortcom-
ings of being a relatively new university. We also take pride in our highly
qualified and motivated academic staff who have worked to re-shape and
build into a modern university institutions of higher education dating back to
the Ottoman period. Without this dedicated input on the part of our academ-
ic faculty, Marmara University would not have gained its national and
international standing in such a short time.
The university is geographically distributed into seven different campuses on the Asian and the European sides of Istanbul, one of the most beautiful and historically rich cities of the world. Thus, our faculty, staff and students enjoy an extensive range of districts as well as some very handsome and monumental university buildings. But at the same time, administration needs more planning and some of our campuses are still very much under construction.

Marmara University is a Turkish state university. On the positive side, this means tuition fees are lower for the students. At the same time, we function with serious economic shortcomings. We are grateful to the benefactors who have generously supported education at Marmara University through their contributions to various foundations and programs.

Our University carries the fundamental ideal of achieving excellence in undergraduate and graduate education, in research and in public service. We see these as inseparably interrelated areas. For the realization of the above ideal, the University has established several goals, including the following: to educate students to their highest potential of intellectual achievement and personal growth; to develop scholars, professionals, artists, and scientists who will contribute to the advancement of humankind both nationally and internationally; to conduct research that advances the frontiers of knowledge and to engage in public service.

In a world of continuing war, violence, strife and inter-cultural conflict our University embraces ideals of human worth, justice and global peace. We believe that international recognition and co-operation between institutions of higher education contribute not only to the advancement of knowledge, science and education but also to the greatly needed development and strengthening of friendship ties between cultures, regions and nations the world. For the attainment of these objectives, I believe Marmara University makes a difference.

In this catalog we have tried to include as much information as possible, but obviously we could not include everything. We apologize for any omissions the catalog may contain. Nevertheless, we hope that this initial English catalog will be a source of information to you about our University and about the programs available. We are proud of Marmara University and of its programs. We encourage you to become acquainted with us and with the many programs and resources available to the community through our University.

Prof. Dr. Ömer Faruk BATIREL
Rector
OFFICERS OF THE UNIVERSITY

Rector : Prof. Dr. Ömer Faruk BATIREL
Deputy Rectors : Prof. Dr. Beyazıt ÇIRAKOĞLU
                  Prof. Dr. Ömer Ziya CEBECİ
                  Prof. Dr. Fehim ÜÇİŞİK

Deans

Atatürk Faculty of Education : Prof. Dr. Hikmet SAVCI
Faculty of Arts and Sciences : Prof. Dr. M. Çetin VARLIK
Faculty of Communication : Prof. Ateş VURAN
Faculty of Dentistry : Prof. Dr. Nesrin EMEKLİ
Faculty of Divinity : Prof. Dr. İbrahim Kâfi DÖNMEZ
Faculty of Economic and Administrative Sciences : Prof. Dr. Ahmet Hayri DURMUŞ
Faculty of Engineering : Prof. Dr. Nüket YETİŞ
Faculty of Fine Arts : Prof. Erol ETİ
Faculty of Health Education : Prof. Dr. Osman HAYRAN
Faculty of Law : Prof. Dr. Fehim ÜÇİŞİK
Faculty of Medicine : Prof. Dr. Nurdan TÖZÜN
Faculty of Pharmacy : Prof. Dr. Turay YARDIMCİ
Faculty of Technical Education : Prof. Dr. İhsan GÖK

Directors of Schools

School of Banking and Insurance : Prof. Dr. İihan ULUDAĞ
School of Nursing : Prof. Dr. Hediye EKİZLER
School of Physical Education and Sports : Prof. Dr. Bilge AKYKURT
Vocational School of Divinity : Prof. Dr. İsmail Lütfü ÇAKAN
Haydarpaşa Vocational School of Health Services : Prof. Dr. Osman HAYRAN
Zeynep Kamil Vocational School of Health Services : Assist. Prof. Dr. Nuran KÖMÜRCÜ
Vocational School of Health Related Professions : Prof. Dr. Şanda ÇALI
Vocational School of Social Sciences : Prof. Dr. Osman ALTUĞ
Vocational School of Technical Sciences : Prof. Dr. Mete DOĞRUER
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Institute of Educational Sciences : Prof. Dr. Ayla OKTAY
Institute of European Community : Prof. Dr. Aslan GÜNĐÜZ
Institute of Fine Arts : Prof. Dr. Şermin ALYANAK
Institute of Gastroenterology : Prof. Dr. Nurdan TÖZÜN
Institute of Health Sciences : Prof. Dr. Tevfik AKOĞLU

Institute of Middle East and Islamic Countries : Prof. Dr. Ahmet TABAKOĞLU
Institute of Neurological Sciences : Prof. Dr. Necmettin PAMİR
Institute of Social Sciences : Prof. Dr. Orhan SEZGİN
Institute of Technical Sciences : Prof. Dr. Eralp ÖZDİL
Institute of Turkish and Turkic Studies : Prof. Dr. İnci ENGİNÜN

Heads of Departments:

Atatürk Principles and the History of the Turkish Renovation Department : Prof. Dr. Cevdet KÜÇÜK
Turkish Language Department : Prof. Dr. Emine Gürsoy NASKALİ
Foreign Languages Department : Prof. Dr. Nazan AKSOY

ADMINISTRATIVE STAFF

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Directors:

Construction and Technical Department : Vahap ATAÇ
Personnel Department : Seniye ÖZKORAL
Administration and Finance Department : Şaziye ÇOLAK
Student Affairs Department : Coşkun YÜCEDAĞ
Health, Culture and Sports Department : Muhammet ÇİVREKOĞLU
Library and Documentation : Ayten KORAN
Legal Advisor : Doç. Dr. Kamil YILDIRIM
University Hospital : Mustafa KANARYA
Budget Department : Oktay TOPRAKSEVEN

Executive Secretaries:

Atatürk Faculty of Education : İlhami BALOĞLU
Faculty of Arts and Sciences : Ensar ÇAPUK
Faculty of Communication : İfakat ÖZTÜRK
Faculty of Dentistry
Faculty of Divinity
Faculty of Economic and Administrative Sciences
Faculty of Engineering
Faculty of Fine Arts
Faculty of Law
Faculty of Medinece
Faculty of Pharmacy
Faculty of Technical Education
School of Nursing
School of Physical Education and Sports
Vocational School of Divinity
Vocational School of Health Related Professions
Institute of Banking and Insurance
Institute of Educational Sciences
Institute of European Community
Institute of Gastroenterology
Institute of Health Sciences
Institute of Middle East and Islamic Countries
Institute of Social Sciences
Institute of Technical Sciences
Institute of Turkish and Turkish Studies
Vocational School of Social Sciences
Vocational School of Technical Sciences
Haydarpasa Vocational School of Health Services
Zeynep Kamil Vocational School of Health Services

Abbreviations for Faculties and Institutes

AFE Atatürk Faculty of Education
DFL Department of Foreign Languages
DAPHR Department of Atatürk’s Principles and the History of the Turkish Renovation
FAS Faculty of Arts and Sciences
FC Faculty of Communication
FD Faculty of Dentistry
FDI Faculty of Divinity
FEAS Faculty of Economic and Administrative Sciences
FE Faculty of Engineering
FFA Faculty of Fine Arts
FL Faculty of Law
FM Faculty of Medicine
FP Faculty of Pharmacy
FTE Faculty of Technical Education

Şahin AKÇA
Ahmet KAHRAMAN
Yıldırıay ÖZKAN
Nazif TOYBIYIK
Duran ATLI
Mehmet Ali KUDU
Nimet BELEN
Neval EKİÇİ
Tümer BAYLAN
Lale VARAN
Sevin COŞAN
İbrahim GÜNTÜRKÜN
Saniye ÇORLU
Sabiha BALKAN
Aysel KORKMAZ
Ali Ekber BAL
Selami AYDIN
Neval ANDAŞ (Temporary)
Süleyman KOCAOĞLU
Kamuran ORHAN
Fuat CUMA
Ümran ALAFTAN
Neriman MERİÇ
Tümer BAYLAN
Meral AŞMAN
Osman DÜNDAR
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<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>IBI</td>
<td>Institute of Banking and Insurance</td>
</tr>
<tr>
<td>ITS</td>
<td>Institute of Technical Sciences</td>
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<tr>
<td>IEC</td>
<td>Institute of European Community</td>
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<tr>
<td>IHS</td>
<td>Institute of Health Sciences</td>
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<td>ITS</td>
<td>Institute of Turkish and Turkic Studies</td>
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<td>IMEI</td>
<td>Institute of Middle East and Islamic Countries</td>
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<td>IES</td>
<td>Institute of Educational Sciences</td>
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<td>HVSHS</td>
<td>Haydarpasa Vocational School of Health Services</td>
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<tr>
<td>SON</td>
<td>School of Nursing</td>
</tr>
<tr>
<td>VSD</td>
<td>Vocational School of Divinity SPES School of Physical Education and Sports</td>
</tr>
<tr>
<td>VSHRP</td>
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<td>VSSS</td>
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<td>ZKVSHS</td>
<td>Zeynep Kamil Vocational School of Health Services</td>
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I. GENERAL INFORMATION

Government of the University

The Rector, as chief officer of the University, presides over the Senate and
the University Executive Council.
The chief executive body of the University is the University Executive Coun-
cil consisting of Deans, and Members elected by the University Senate.
The Senate is the principal Academic Body, consisting of Deans, Directors
of Institutes, Directors of Vocational Schools, and Members elected by the
Faculties. Senate sub-committees deal with a wide range of subjects: Mat-
ters relating to curriculum and examinations are dealt with by the Board of
Faculties, Schools and Institutes. Each Faculty, School or Institute has its
own Council and Board.

History of the University

1 – Marmara University was founded on January 16, 1883 under the name of
"Hamidiye College of Higher Commercial Education". At the time it was the
only leading higher education institute for studies in Economics and Com-
merce. Until 1923, courses were taught in various buildings in Istanbul. Ho-
wever, in 1923, with the Declaration of the Turkish Republic, the Institutite
was relocated the Rectorate Building in Sultanahmet. This had criminally
been used as the Ministry of Agriculture during the Ottoman Empire. From
1923 to 1959, the college was called the "Higher Educational School of Eco-
nomics and Commerce". In the year 1959 the name was changed to "Acade-
my of Economics and Commercial Sciences".

2 – In accordance with Act 1472, in the year 1972, some of the private
Schools of Higher Education in Istanbul were nationalized and hence incor-
porated into this long established institution. Among these schools were
Dentistry, Pharmacy and Journalism. With the incorporation of six other Ak-
saray, Şişli, Galatasaray Economics and Commerce, Journalism, and Nişan-
taşı, the Istanbul Academy of Economics and the School of Dentistry and
Pharmacy, Commercial Sciences became the third largest institution in the
field of Economics and Commerce, after Istanbul University and Istanbul Te-
chничal University. This expansion accelerated the operational process of the
Academy becoming a University. Ord. Prof. Dr. Nihad S. Sayar, then Direc-
tor of the Academy of Economics and Commercial Sciences, named the
University "Marmara".

4 – In 1979 the Economics, Business Administration, International Relations,
Commercial Sciences, Dentistry, Pharmacy and School of Journalism began
operating as Faculties of the newly formed university. The Faculty of Medicine, began to function when the Vakif Guraba Hospital building was reclaimed.

5 – In accordance with the Act 2800, of November 6, 1981, The Istanbul Academy of Economics and Commercial Sciences was finally recognised as Marmara University in July 25, 1982.

At present there are 13 Faculties, 8 Schools, 11 Institutes and 24 Research Centers. MU with its 3748 students, 3482 which are from 2 year programs, is the fourth biggest University in Turkey. There are 2422 Academic and 1240 Administrative staff.

1. STUDENT SERVICES AND FACILITIES

A network of services, programs, and resources provided by knowledgeable and caring staff members is available to the students at Marmara University. The University has a unique location, as its faculties are spread out on both sides of the Bosphorus. This makes MU the only University in the world located on two continents, Asia and Europe. As a result the many social facilities are also widely dispersed.

Accommodation

Campus housing is available for 1850 students. One residence hall in Bağlarbaşı district houses 800 male undergraduate students and a second residence hall in Anadoluhisarı campus houses 600 female undergraduates. The residence hall on Göztepe Campus houses 450 female graduate and undergraduate students. The residence halls have several facilities such as common recreation rooms, game areas, laundrettes and small kitchens. Meals are served regularly and residents also have the opportunity to do their own cooking.

The Hostel on Göztepe Campus has been in service since the 1991-1992 academic year for visiting foreign teaching staff and the academic staff from other cities of Turkey.

There is also another residence hall near the Göztepe Campus for the nurses in Marmara University Hospital.

Staff and Students

In the academic year 1995 - 1996 the number of students enrolled totals 32,878 for the undergraduate programs and 4365 for the graduate programs.

In 1995-1996 the University boasts 2422 full-time faculty members. In addition there are 69 foreign academic staff from a variety of countries.
Computer Facilities

To equip university graduates with the knowledge and skills necessary to be competitive in modern society presents a formidable challenge. Marmara University is facing up to this challenge with a firm commitment to provide a wide range of computational services and a comprehensive computer education.

The difficulty of providing the University community with uniform computational services is due to the fact that Marmara University has 7 different campuses spread all over metropolitan Istanbul.

Personal computers are being used as the main computational tool in education and research. In some technical departments, the number of students per machine is as low as 5. Several unix workstations of various models are also in use for graduate research and specialized education such as CAD/CAM.

Internet connection is available through a number of personal computers and dial-up modems. Faculty members can be reached with the e-mail address "marun.edu.tr", independent of the machine they log on. Work is in progress for extending these services to the faculties where a high demand exists.

Libraries

Marmara University library system holds a total of 217,831 books and about 8,000 periodicals in Turkish, English, French, German and other languages, distributed among 16 different libraries situated on both the Asian and European sides of Istanbul.

All books, periodicals and magazines are bought or classified by the main library on Bahçelievler Campus. The collections at the libraries are organized according to the Dewey Decimal Classification scheme and catalogued in accordance with AACR 2. The Library of Congress Subject Headings are used. Each book is listed in the catalogue by author, title, and subject.

The services of the libraries are available to the faculty, students and administrative staff, as well as to users from other national universities and institutions. Books can be borrowed for one week by the students and two weeks to one month by the academic staff.

When the books needed are not available, other libraries in Turkey and abroad are contacted to supplement the resources. The main library can obtain any reference material needed from abroad through YÖK, which is connected to the Dialogue Center.
Besides the main library in Bahçelievler, most of the departments have their own libraries. In addition, photocoppy units are available to provide photocopies of any source for a reasonable fee.

Construction of the new Main Library Building, which will unite all the library units of Marmara University, is underway on Göztepe Campus.

**Galleries**

Marmara University Art Gallery displays a fine collection of 20th century art. These regular works of art are complemented by special exhibitions from across the nation and from Marmara University faculty and students. Faculty members and students are frequent exhibitors of handcraft in the gallery of the Department of Fine Arts.

**Student Services Office**

The Office is responsible for matters concerning enrollment, scholarships, financial aid, counselling, identity cards and graduation requirements. The alumni office is connected to this office and coordinates communication between graduates and student, faculty and administration; keeps updated information of graduates; makes arrangements to let graduates benefit from facilities of the University.

**Health Care and Sports Office**

The Health Care and Sports office provides and coordinates a number of vital services to students. Fully accredited health care is available through the University Health Care Center and Marmara University Research Hospital. At the University Health Care Centers which are located on the campuses there is no charge for students during regular hours and it is open 8 hours daily. Basic tests, medication, consultants, physicians, registered nurses, dentists and mental health professionals are available 8 hours a day. For more severe cases Marmara University Research Hospital is on duty for 24 hours. This office is also responsible for accommodation and social and athletic activities carried out during the academic year.

Students who wish to stay in residence halls must complete the appropriate application forms and return them to the office.

**Activities and Sports**

There are many extracurricular activities on the various campuses. Intramural sports are played throughout the year and a student may choose any of the major sports. The University participates in a variety of intercollegiate sports. The representative teams are organized by University Sports Clubs.
Student activities take place on a national and international scale. On the campuses there are a total of 3 gyms, 8 open-air basketball and volleyball fields, 2 football fields, 5 tennis courts and 3 intramural sports centers.

Students can also participate in cultural activities like Turkish Folk Dancing, Turkish Folk Music, Turkish Classical Music, Lecturing, Drama and Guitar and Bağlama courses. Lectures are held on a variety of subjects throughout the academic year at the İbrahim Üzümcü Cultural Center at the Göztepe Campus.

There are Student Services Representatives in each of the Faculties. Students interested in participating in the activities of the organizations listed below, should contact the related clubs.

Communications Club
Culture Club
Education Technology Club
Economists Club
Folklore Club
Industrial Engineering Club
International Relations Club
Management Club
Marmara Society
Music Club
Political History Club
Philosophical Arts Club
Photography Club
Science and Technology Club
Teaching of Science Club
Yakamoz Art and Science Club
2. ACADEMIC POLICIES

Marmara University offers the degree of Bachelor of Arts or Science upon completion of a course of study lasting a minimum of eight semesters. The degree of Master of Arts or Master of Science is given to students of graduate standing who complete a course of study lasting ordinarily four semesters. Further information concerning the programs of study required by each department for a Bachelor’s degree can be found in each department.

Admission Requirements and Procedures

All applicants, both Turkish and foreign high school graduates, are required to take a selection examination, held annually by the Turkish Student Selection and Placement Center. This examination is open for all high-school graduates who wish to continue their education in any faculty.

For further information, please apply to:

Yüksek Öğretim Kurulu
Öğrenci Seçme ve Yerleştirme Merkezi
Bilkent, Eskişehir Yolu, Ankara, TURKEY

Necessary Documents for Registration

1 – A lycée (high school) or equivalent school diploma (Diplomas issued by foreign schools must be submitted together with a document from the Board of Education of the Ministry of Education, Ankara, Turkey, certifying the equivalency for Turkish educational institutions.)

2 – A certified copy of the birth certificate
   (Passport for foreign students)

3 – Residence certificate
   (Residence permission for foreign students)

4 – Statement of criminal record (only for Turkish students)

5 – Health report either from the University Hospital or another approved hospital

6 – A student visa (for foreign students)

7 – Receipt for fees paid

8 – Twelve passport-size recent photographs

Admission of new student is carried out by the Faculty Registrar’s Office.

Transfer From Other Institutions

1 – There must be a vacancy in the appropriate place.

2 – The student’s academic level must be approved by the Faculty.

3 – The student’s previous academic record must be satisfactory
4 - For some faculties, the student must take a proficiency examination in English. (The date of these examinations will be announced yearly within the first week of September)

5 - The relevant faculty Executive Committee will make the final decision for transfer students.

6 - For the Faculty of Medicine, Transfers from Premedical Schools are not accepted. It is necessary to be a student of any Medical School with equivalent education programmes.

The documents should reach the Dean's Office within the first half of August.

Tuition Fees and Re-Registration

All currently registered students are required to pay tuition fees. The amount and dates for payment are announced at the beginning of each academic year. Those students who fail to pay tuition fees at the announced times will be dismissed from the University.

Payments should be made to the bank accounts indicated below:

For Turkish Students:
Account Number 30459-311600
T.C. Ziraat Bankası
Bahçelievler Şubesi
İSTANBUL

For Foreign Students:
Account Number US $ : 30103/31344
DM : 30103/31345
UK Sterling : 30103/31346
Swiss Franks : 30103/31349-9
Austrian Shillings : 30103/31759-4

T.C. Ziraat Bankası
Çemberlitaş Şubesi
İSTANBUL

Registration of the students is carried out by the Registrar’s Office.

3. BACHELOR'S DEGREE COURSES

A. Atatürk Faculty of Education
   i) Adult Education
   ii) Arts and Crafts
   iii) Early Childhood Education
   iv) Educational Sciences
   v) Elementary Teacher Training
   vi) Foreign Language Education
vii) Music Education  
viii) Science Education  
ix) Social Science Education  
x) Turkish Language and Literature

B. Faculty of Arts and Sciences
   i) Archive Studies  
   ii) Biology  
   iii) Chemistry  
   iv) History  
   v) Mathematics  
   vi) Physics  
   vii) Turkish Language and Literature

C. Faculty of Communication

D. Faculty of Dentistry

E. Faculty of Divinity

F. Faculty of Economics and Administrative Sciences
   i) Business Administration  
   ii) Business Administration (English)  
   iii) Business Administration (German)  
   iv) Business Informatics (German)  
   v) Econometrics  
   vi) Economics  
   vii) Economics (English)  
   viii) International Relations (English)  
   ix) Labor Economics and Industrial Relations  
   x) Public Administration (French)  
   xi) Public Finance

G. Faculty of Engineering
   i) Computer Engineering  
   ii) Environmental Engineering  
   iii) Industrial Engineering

H. Faculty of Fine Arts
   i) Ceramics and Glass  
   ii) Cinema-TV  
   iii) Graphic Design  
   iv) Industrial Design  
   v) Interior Design
vi) Painting
vii) Photography
viii) Sculpture
ix) Textile
x) Traditional Turkish Handcrafts

I. Faculty of Law

J. Faculty of Medicine

K. Faculty of Pharmacy

L. Faculty of Technical Education
   i) Education
   ii) Electrical Education
   iii) Electronics and Computer Education
   iv) Mechanical Technology Education
   v) Metals Technology Education
   vi) Printing Education
   vii) Textile Education

4. INSTITUTES THAT OFFER GRADUATE PROGRAMS AT THE M.S. M.A. AND Ph. D. LEVELS

A. Institute of Medical Studies
   i) Audiology (M.S., Ph.D.)
   ii) Analytical Chemistry (M.S., Ph.D.)
   iii) Biochemistry (M.S., Ph.D.) (FM, FP)
   iv) Biophysics (M.S., Ph.D.)
   v) Gastroenterology and Endoscopy Nursing (M.S.)
   vi) Immunology (M.S., Ph.D.)
   vii) Medical Biology and Genetics (M.S., Ph.D.)
   viii) Microbiology (M.S., Ph.D.)
   ix) Morphology (M.S., Ph.D.)
   x) Nephrology (M.S., Ph.D.)
   xi) Obstetrics and Gynecologic Nursing (M.S., Ph.D.)
   xii) Oral Surgery (Ph.D.)
   xiii) Operative Dentistry, Endodontics and Oral Diagnosis (Ph.D.)
   xiv) Orthodontics (Ph.D.)
   xv) Pharmaceutical Technology
   xvi) Pharmacology (M.S., Ph.D.) (FM; FP)
   xvii) Physiology (M.S., Ph.D.)
   xviii) Public Health (Ph.D.)
   xix) Pathology (M.S.)
   xx) Prosthodontics (Ph.D.)
xxi) Periodontology (Ph.D.)
xxii) Pedodontics (Ph.D.)
xxiii) Pharmacognosy (M.S., Ph.D.)
xxiv) Pharmaceutical Toxicology (M.S., Ph.D.)
xxv) Pharmaceutical Technology (M.S., Ph.D.)
xxvi) Pharmaceutical Chemistry (M.S., Ph.D.)
xxvii) Physical Education and Sports (M.S., Ph.D.)
xxviii) Shoulder and Hand Rehabilitation (M.S.)

B. Institute of Banking and Insurance
   i) Banking CMA
   ii) Capital Market and Stock Exchange
   iii) Insurance

C. Institute of Educational Sciences

D. Institute of European Community Studies (MA and Ph.D.)

E. Institute of Fine Arts

F. Institute of Gastroenterology

G. Institute of Middle East and Islamic Studies
   i) Economics in Middle East and Islamic Countries (M.A., Ph.D.)
   ii) Law Systems in Middle East and Islamic Countries (M.A.)
   iii) Political History and International Relations of Middle East and Islamic Countries (M.A.)

H. Institute of Neurological Sciences

I. Institute of Social Sciences
   i) Art (FFA)
   ii) Art Education (AFE)
   iii) Basic Islamic Sciences (FDI)
   iv) Business Administration (FEAS)
   v) Business Administration (English) (FEAS)
   vi) Business Administration (German) (FEAS)
   vii) Econometrics (FEAS)
   viii) Economics (FEAS)
   ix) Economics (English) (FEAS)
   x) Educational Sciences (AFE)
   xi) Elementary Teacher Training (AFE)
   xii) Finance (FEAS)
   xiii) Foreign Languages (AFE)
   xiv) History (FAS)
   xv) Human Resources Management and Development
   xvi) Industrial Design (FFA)
xv) Interior Design (FFA)
xvi) International Relations (English) (FEAS)
xvii) Islamic History and Arts (FDI)
xviii) Journalism (FC)
xix) Labor Economics and Industrial Relations (FEAS)
x) Performing Arts (FFA)
xxi) Philosophy and Religious Sciences (FDI)
xxii) Politics and Social Sciences
xxiii) Private Law (FL)
xxiv) Public Law (FL)
xxv) Public Relations (French) (FEAS)
xxvi) Public Relations and Publicity (FC)
xxvii) Radio-TV and Cinema (FC)
xxviii) Sculpture (FFA)
xxix) Social Sciences Education (AFE)
xxx) Stage and Visual Arts (FFA)
xxxii) Traditional Turkish Handcraft (FFA)
xxxii) Western Languages and Literature (FAS)

J. Institute for Graduate Studies in Science and Technology
   i) Biology
   ii) Chemistry
   iii) Electrical Technology and Education
   iv) Electronics and Computer Technology Education
   v) Engineering Management
   vi) Industrial Engineering
   vii) Mathematics
   viii) Mechanical Technology Education
   ix) Metal Technology and Education
   x) Music Education
   xi) Physics
   xii) Printing
   xiii) Social Sciences Education
   xiv) Technology Education
   xv) Textile Technology Education

K. Institute of Turkish and Turkic Studies
   i) Archive Studies (MA)
   ii) Atatürk Principles and the History of the Turkish Renovation
       (MA, Ph.D.)
   iii) Contemporary Turkish Literature (MA, Ph.D.)
   iv) General Turkish History (MA)
   v) History of the Turkish Republic (MA, Ph.D.)
   vi) Late Ottoman History (MA, Ph.D.)
vii) Medieval History (MA, Ph.D.)
viii) Ottoman History (MA, Ph.D.)
ix) Ottoman Literature (MA, Ph.D.)
xii) Turkish Art (MA, Ph.D.)
xii) Turkish Philology (MA, Ph.D.)
xii) Turkish History (Ph.D.)

5. EDUCATION in VOCATIONAL SCHOOLS

Education In the Haydarpaşa Vocational School of Health Services

Education in the School of Nursing

The School of Nursing offers a four-year Bachelor’s degree program.

Education in the School of Physical Education and Sports

The School of Physical Education and Sports offers a four-year Bachelor’s degree program.

Education In the Vocational School of Divinity

The Vocational School of Divinity offers a two-year program in Divinity.

Education In the Vocational School of Health Related Professions

The Vocational School of Health Related Professions offers the following two-year programs in the following subjects:

i) Medical Laboratory
ii) Nursing
iii) Pathology
iv) Radiology
v) Tooth Prosthesis

Education in the Vocational School of Social Sciences

The Vocational School of Social Sciences offers the following two-year programs in the following subjects:

i) Accounting
ii) Sales Management
iii) Office Management and Secretariat
iv) Tourism and Hotel Management
v) Tourist Guiding
vi) Foreign Trade
vii) Banking

Education in the Vocational School of Technical Sciences

The Vocational School of Technical Sciences offers the following two-year programs in the following subjects:
6. **ACADEMIC CALENDAR**

The University officially begins the 1995/96 academic year on **October 2, 1996**. The Fall Semester lasts from October to February and the Spring Semester Lasts from March to July. Faculties and Institutes differ slightly in their official days of opening and closure for each semester. The exact dates can be obtained from the relevant institutions.

The University is closed on Saturdays and Sundays. Please also note that the following days are national or religious days of celebration in Türkiye and the University is officially closed:

<table>
<thead>
<tr>
<th>Dates</th>
<th>Occasion of Celebration</th>
<th>Total Number of Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 29, 1995</td>
<td>Independence Day</td>
<td>One day</td>
</tr>
<tr>
<td>January 1, 1996</td>
<td>New Year's Day</td>
<td>One day</td>
</tr>
<tr>
<td>February 20 - 22, 1996</td>
<td>End of Ramadan Holiday</td>
<td>3.5 days (Beginning afternoon of February 19)</td>
</tr>
<tr>
<td>April 23, 1996</td>
<td>Children's Day</td>
<td>One day</td>
</tr>
<tr>
<td>April 28 - May 1, 1996</td>
<td>Religious Holiday</td>
<td>4.5 days (Beginning afternoon of April 27)</td>
</tr>
<tr>
<td>May 19, 1996</td>
<td>National Youth and Sports Holiday in Memory of Atatürk</td>
<td>One day</td>
</tr>
<tr>
<td>August 30, 1996</td>
<td>Victory Day</td>
<td>One day</td>
</tr>
</tbody>
</table>
7. UNIVERSITY DIRECTORY

- Administrative Departments
  Rectorate
  Tel: (212) 518 16 00 (9 lines)
  Fax: (212) 518 16 15/216 330 6022
  Student Services:
  Fax: (212) 518 16 08
  Personnel Department:
  Fax: (212) 518 16 11

- Faculties
  Atatürk Faculty of Education:
  Fax: (216) 345 90 90 (3 lines)
  Faculty of Arts and Sciences:
  Fax: (216) 346 45 53
  Faculty of Communication:
  Fax: (212) 233 04 47
  Faculty of Dentistry:
  Fax: (212) 246 74 28
  Faculty of Divinity:
  Fax: (216) 310 53 11 (9 lines)
  Faculty of Economic and Administrative Sciences
  a) Turkish Medium Departments:
  Fax: (212) 507 99 25
  Fax: (212) 505 93 32
  b) English Medium Departments:
  Fax: 336 52 73
  c) French Medium Departments:
  Fax: (212) 223 12 37
  Fax: (212) 262 96 44
  d) German Medium Departments:
  Fax: (216) 332 99 29
  Fax: (216) 332 53 71
  Faculty of Engineering:
  Fax: (216) 348 02 92
  Fax: (216) 348 02 93
  Faculty of Fine Arts:
  Fax: (216) 326 26 67 (4 lines)
  Fax: (216) 339 18 83
  Faculty of Health Education:
  Fax: (216) 399 93 84
  Fax: (216) 399 93 71
  Faculty of Law:
  Fax: (216) 349 84 00 (3 lines)
  Faculty of Medicine:
  Fax: (216) 336 02 12
  Fax: (216) 414 47 31
  Faculty of Pharmacy:
  Fax: (216) 414 29 62 (3 lines)
  Fax: (216) 345 29 52
  Faculty of Technical Training:
  Fax: (216) 336 57 70
  Fax: (216) 337 89 87
Schools

Vocational School of Divinity: (216) 342 61 80
Haydarpaşa School of Health Services: (216) 418 23 85
Fax: (216) 336 51 00

Vocational School of Health Related Professions: (216) 338 27 98
Zeynep Kamil Vocational School of Health Services: (216) 342 69 18
School of Nursing: (216) 418 16 06 - 07
Fax: (216) 418 37 73

School of Physical Education and Sports: (216) 308 56 61
Fax: (216) 332 16 20

Vocational School of Social Studies: (216) 517 20 14
Fax: (216) 517 20 12

Vocational School of Technical Studies: (216) 336 57 70
Fax: (216) 337 89 87

Other Institutions

- Department of Atatürk Principles and the History of the Turkish Renovation: (216) 346 45 53
- Department of Turkish Language: (216) 345 11 86
- Department of Foreign Languages: (216) 338 20 87 - (216) 348 76 33
Fax: (216) 348 07 42

Telephone information: International code for Turkey: 90. Istanbul area codes: European side: 212, Asian side: 216. Local numbers on the European side begin with 2, 5 or 6, those on the Asian side with 3 or 4. For intercity calls within Turkey first dial "0", then the area code, and then the local number. For international calls first dial "00".
II. FACULTIES

1. ATATÜRK FACULTY OF EDUCATION

Dean: Prof. Dr. Hikmet SAVCI
Assistant Deans: Prof. Dr. İsa EŞMEN
                Assoc. Prof. Dr. Hüseyin GÜMÜŞ

Professional education in the Atatürk Faculty of Education is based on the technical and intellectual disciplines characteristic of each profession; disciplines which go beyond the idea of training for competence into the more intricate problems of education for growth and creative maturity.

Instruction in all departments of the Faculty is designed to equip students with basic skills and fundamental knowledge and to engage them deeply in the activities and modes of behavior of three broad intellectual and creative areas, enabling them to identify more surely their own interests, talents, and competences in mathematics, science, and technology, in the social and educational sciences, and in the arts and humanities.

The Faculty consists of ten departments, namely, the Department of Adult Education, the Department of Art and Craft Education, the Department of Early Childhood Education, the Department of Elementary Teacher Training, the Department of Educational Sciences, the Department of Foreign Languages Education, the Department of Music Education, the Department of Science Education, the Department of Social Sciences Education, the Department of Turkish Language and Literature. All departments have their own programs leading to B.A. and B.S. degrees, Graduate programs are offered by the Institute of Educational Sciences in the fields of Adult Education, Early Childhood Education, and Elementary Teacher Training and by the Institute of Social Sciences in the other fields of the Faculty.

The Atatürk Faculty of Education also offers a Teaching Certificate program. Upon its completion students are awarded a Teaching Certificate which qualifies them to teach at the secondary school level. Students begin this program in the sophomore year and continue to take vocational courses each semester until the second semester of the senior year when they are required to do a one-month field practice in a local secondary school to be awarded the Teaching Certificate.

In the Department of Music Education and the Department of Art and Crafts Education, students are selected by a proficiency exam depending on their score in the National University Entrance Examination.
DEPARTMENT OF ADULT EDUCATION

Head of Department : Prof. Dr. Adnan KULAKSIZOĞLU
Associate Professor : Güneysel MALKOÇ
Assistant Professor : Sefer ADA
Instructors : M. Cihangir DOĞAN, Ozana URAL,
Mehmet YAHYGİL,

Language of Instruction: Turkish

The Department of Adult Education was founded in 1992 as the first Adult Education Department in Istanbul and the second one in Turkey. The department conducts an undergraduate program leading to a B.A. degree in Adult Education. The Department also cooperates with the Graduate School (Institute of Educational Sciences) offering graduate programs leading to M.A. and Ph.D. degrees. Since Adult Education is a multi-disciplinary field of study, the Department has necessarily cooperative ties with many of the other Schools in the University.

The studies of the Department are concentrated on the foundations and philosophy of adult education both in Turkey and in world wide scope as well. The theory and practice are both emphasized and special attention is paid on the problems and solutions of the field. Since Adult Education is a relatively new field of study, contributing to the development of the field both at home and abroad is a major concern.

The main objective of the Department is to train educators of adults who will work as organizers, coordinators and administrators in Adult Education Centers, in the in-service Training Departments of public and private sectors. The Department also offers a Teaching Certificate Program for the ones who will teach adults, and in-service training programs for various institutions.

The Adult Education Department gives personal attention to its students and uses creative approaches in the development of study to meet the needs of prospective teachers and educators of adults. In addition, the Department is formed to carry out research and to contribute to the dissemination of knowledge in the field.
## UNDERGRADUATE PROGRAM

### Freshman Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>HE 101 Introduction to Education</td>
<td>HE 113 Educational Sociology</td>
</tr>
<tr>
<td>HE 102 Introduction to Sociology</td>
<td>HE 114 Introduction to Management</td>
</tr>
<tr>
<td>HE 103 Introduction to Psychology I</td>
<td>HE 104 Introduction to Psychology II</td>
</tr>
<tr>
<td>HE 105 Introduction to Economics</td>
<td>HE 115 Librarianship</td>
</tr>
<tr>
<td>HE 106 Adult Education I</td>
<td>HE 107 Adult Education II</td>
</tr>
<tr>
<td>HE 108 Introduction to Law</td>
<td>HE 116 Turkish Constitutional Law</td>
</tr>
<tr>
<td>HE 109 Introduction to Communication</td>
<td>HE 110 Communication</td>
</tr>
<tr>
<td>HE 111 Introduction to Computer Science</td>
<td>HE 112 Computer Science II</td>
</tr>
</tbody>
</table>

### Sophomore Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>HE 201 Developmental Psychology</td>
<td>HE 212 Psychology of Learning</td>
</tr>
<tr>
<td>HE 202 Program Areas in Adult Education</td>
<td>HE 213 History of Culture</td>
</tr>
<tr>
<td>HE 203 Art and Education</td>
<td>HE 214 Adult Psychology</td>
</tr>
<tr>
<td>HE 204 Public Relations I</td>
<td>HE 205 Public Relations II</td>
</tr>
<tr>
<td>HE 206 Optimal (Banking) I</td>
<td>HE 207 Optional (Banking) II</td>
</tr>
<tr>
<td>HE 208 Computer Applications I</td>
<td>HE 209 Computer Applications II</td>
</tr>
<tr>
<td>HE 210 Communication Techniques I</td>
<td>HE 211 Communication Techniques II</td>
</tr>
<tr>
<td></td>
<td>HE 215 Research Methods I</td>
</tr>
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</table>

### Junior Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>HE 301 Principles and Methods of Teaching</td>
<td>HE 309 Group Dynamics</td>
</tr>
<tr>
<td>HE 302 Measurement and Evaluation</td>
<td>HE 310 Guidance</td>
</tr>
<tr>
<td>HE 303 Social Psychology</td>
<td>HE 311 Statistics</td>
</tr>
<tr>
<td>HE 304 Social Change</td>
<td>HE 312 Service Management</td>
</tr>
<tr>
<td>HE 305 Research Methods II</td>
<td>HE 313 Curriculum Development in Education</td>
</tr>
<tr>
<td>HE 306 Social and Cultural Structure of Turkey</td>
<td>HE 314 Principles and Methods of Adult Education</td>
</tr>
<tr>
<td>HE 307 Optional (Accounting) I</td>
<td>HE 308 Optional (Accounting) II</td>
</tr>
</tbody>
</table>
## Senior Year

### First Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HE 401</td>
<td>Industrial Psychology</td>
</tr>
<tr>
<td>HE 402</td>
<td>Technical and Vocational Adult Education</td>
</tr>
<tr>
<td>HE 403</td>
<td>Educational Administration</td>
</tr>
<tr>
<td>HE 404</td>
<td>Philosophy of Education</td>
</tr>
<tr>
<td>HE 405</td>
<td>Action Research in Adult Education (Seminar I)</td>
</tr>
<tr>
<td>HE 407</td>
<td>Optional (Sociology of Public Health)</td>
</tr>
<tr>
<td>HE 408</td>
<td>Planning in Adult Education</td>
</tr>
</tbody>
</table>

### Second Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HE 409</td>
<td>Organisation and Management in Adult Education</td>
</tr>
<tr>
<td>HE 410</td>
<td>In-Service Training</td>
</tr>
<tr>
<td>HE 411</td>
<td>Mass Communication and Adult Education</td>
</tr>
<tr>
<td>HE 406</td>
<td>Action Research in Adult Education (Seminar II)</td>
</tr>
<tr>
<td>HE 412</td>
<td>Optional (Family Education)</td>
</tr>
<tr>
<td>HE 413</td>
<td>Techniques in Supervision</td>
</tr>
<tr>
<td>HE 414</td>
<td>Application (1 month)</td>
</tr>
</tbody>
</table>

## COURSE DESCRIPTIONS

**HE 101 Introduction to Education:** Education as a field of study. Systems approach to Education. Turkish educational system, conceptual models for instructional design and implementation. Teaching and other professions in Education.

**HE 102 Introduction to Sociology:** A brief survey of the field. Culture and society, the group and the individual in terms of social processes. The workplace as a social setting. Urban-rural differences, urbanization, stratification and status, social change, the contribution of major figures to the field.

**HE 103 Introduction to Psychology:** An introduction to Psychology including knowledge of the basic psychological processes, such as perception, learning motivation and theories of development, intelligence, personality, social relations and psycho-pathology. Research methods and experimental design in psychology are briefly discussed.

**HE 105 Introduction to Economics:** The course is designed to provide a basic knowledge of economics. Describing economic concept, tools and models. A general view of the demand, supply, price system, consumer behavior, national income.

**HE 106 Adult Education I:** The place and purposes of adult education in contemporary societies. Selected programs and fundamental education, citizenship, general education and occupational skills. On-the job training in-services industry and agriculture. Organization and administration of adult education programs with reference to Turkey.

**HE 108 Introduction to Law:** Social relations and law, different legal systems, branches of law, sources of law, application of law and interpretation, rights, capacity, mentally disordered persons and minors.
HE 109 Introduction to Communication: Introducing the functions, uses of audio-visual equipment and how to use them for educational purposes. (Cinema-TV-Video, Photograph-Graphics).

HE 111 Introduction to Computer Science: Introduction to computers and their use in education as an instructional, managerial, and research tool. (General concepts of information processing, components of computers and operations.)

HE 113 Educational Sociology: Education and the process of socialization. School as a social agency and as a social system, Analysis of teacher's role in the school and the community.

HE 114 Introduction to Management: Organizations and management; study of basic managerial functions, the decision making process, organization structure and design: classical concepts and contingency approaches.

HE 115 Librarianship: This course concentrates on developing students abilities in reaching and using library resources.

HE 116 Turkish Constitutional Law: This course aims to investigate the emergence and the development of parliamentarianism in Turkey. The final section of the 1982 Constitution will be given.

HE 201 Development Psychology: An introduction to stages and processes of human development with reference to major psychological theories of development.

HE 202 Program Areas in Adult Education: Familiarity with the institutions that provide educational opportunities for adults, their roles, distinctive features and inter-relationships. The multiplicity of organizations and educational programs for adults.

HE 203 Art and Education: Explorations in the visual description and the construction of objects and ideas; problems in form and composition in relation to the conceptual models for instructional design and implementation.

HE 204 Public Relations: The concept and importance of public relations in modern organizations and institutions of Adult Education.

HE 206 Optional (Banking): Organizational structure of Turkish banking system, capital budgeting, man power planning in banking sector, budgeting, fund and liquidity management, credit systems and various monetary applications.

HE 212 Psychology of Learning: Acquisition and learning in terms of role of teaching, exposure, age, motivation, understanding patterns, school behaviour.

HE 213 History of Culture: The course is designed to familiarize the student with the knowledge from ancient history and civilization to the transformation of modern history and civilization. A comparison of diverse cultures and societies from the view-point of methods and findings of social anthropology.
HE 214 Adult Psychology: Theory and psychological factors in adulthood with particular attention to personality and learning.

HE 215 Research Methods: An introduction to the methodology and research techniques used in the social sciences. The logic of social scientific inquiry. Formulating research problems, hypotheses; defining concepts. Selecting research types and research design. Data collection techniques.

HE 301 Principles and Methods of Teaching: A study of instructional theories and methodologies, basic concepts and principles in planning, implementing and evaluating teaching.


HE 303 Social Psychology: Basic psychological factors such as motivation and attitudes which shape the behavior of human beings in relation to their groups. Social and cultural habits of human beings with reference to conformity, communication and group dynamics are discussed. Special reference is made to research techniques.

HE 304 Social Change: Review of various approaches to the study of social change with emphasis upon evolutionary, neo-evolutionary and conflict-consensus theories of social changes and development. Review of studies designed to assess the causal relationship between various aspects of development.

HE 305 Research Methods: Further knowledge for data collection techniques, general principles of sample technique, analysis and interpretation of social science data. Principles of writing research reports.

HE 306 Social and Cultural Structure of Turkey: A survey describing and interpreting Turkish society at present and social transformation with reference to different perspectives.

HE 307 Optional (Accounting): Accounting as an information system, accounting concepts and related theories, accounting process, steps in the accounting cycle and some basic knowledge about cash-flow systems and analysis of financial statements.

HE 309 Group Dynamics: Characteristics of small groups; interrelationships between the individual, the group and social setting, Interaction processes in small groups and the emergence of group structure. Theories of group dynamics.
HE 310 Counselling: Introducing guidance and giving theory and practice in adult education programs.

HE 311 Statistics: Designed as an introduction to statistical methods in terms of basic descriptive techniques, theoretical distributions, regression, correlation and problems of estimation and tests of hypotheses, analysing research findings.

HE 312 Service Management: Essentials of service management in adult education programs; functions of management, planning, organizing, controlling and leading; problems and procedures of service management.

HE 313 Curriculum Development in Education: A study of instructional theories and methodologies, basics and principles in planning, implementing and evaluating strategies in particular learning tasks.

HE 314 Principles and Methods of Adult Education: An overall view of the principles and methods used in Adult Education and their application.

HE 401 Industrial Psychology: Psychological variable-roles, norms and values in the operation of production and technical subsystems in organizations. Effective utilization of individuals for production. Analysis of human behaviour at different levels, individual, group, organization and in different functions of industry.

HE 401 Technical and Vocational Education: Assumptions, principles, approaches and techniques of vocational development and choice. Identification of individual characteristics in career decision-making, occupational information and opportunities.


HE 404 Philosophy of Education: The evaluation of different philosophy streams and their influence on Turkish educational system.

HE 405 Action Research in Adult Education: Individual research projects in the fields of interest and a final research report is required.

HE 407 Optional (Sociology of Public Health): Health and disease in the community. A complex interrelation of biological, social and enviromental factors, and the teaching of community health with emphasis on the promotion of health in addition to the prevention of disease.

HE 408 Planning in Adult Education: Theory and research in educational administration, leadership behavior in school administration and administrative tasks.
HE 409 Organisation and Management in Adult Education: General framework of educational administration. Planning, organization and management issues in adult education institutions.

HE 410 In-Service Training: The definition, content and the importance of in-service training in modern institutions. Variations and the development of in-service training programs.

HE 411 Mass Communication and Adult Education: The use of mass-media in adult education including radio, television, printing press and films. Integration of mass communication productions with newly developed adult education programs.

HE 412 Optional (Family Education): The relationship of family structure, process and the child’s socio-emotional and cognitive development. Particular attention is given to different interaction styles and the development of personality.

HE 413 Techniques in Supervision: Examination of the work of the inspectors in education with an emphasis on standards of fieldwork and reporting.
DEPARTMENT OF ART and CRAFTS EDUCATION

Head of Department : Prof. Dr. İsmail AVCI
Professors : Dinçer ERİMEZ, M. Zeki KUŞOĞLU, Nüzhet KUTLUĞ, İsmail AVCI, Ramiz AYDIN
Associate Professors : isa BAŞLIOĞLU, Basri Erdem,
Ali CANDAŞ, İ. Hakkı DEMİRTAŞ, Ayla ERSOY,
Mustafa GÜRÜNLU, Berika İPEKBAYRAK,
Tülin ONAT, Erol ÖZDEN, Ahmet ÖZOL
Mehmet ÖZET, Tayfun AKKAYA
Muammer ÖNER, Veli SAPAZ, Nevhz TANYELİ
Assistant Professors : Yunus GÜNEŞ, Bahattin ODABAŞI,
Vural YILDIRIM, Ayşe ÖZEL, Keriman TÜZÜN
Instructors : Engin AKDOĞAN, Erol BULUT, Pesent DOĞAN,
Şerif GÜNYAR, Neše SAYIL, İnci YENIHAYAT,
Avni ÖZTOPCU

Language of Instruction : Turkish

The Department of Art and Crafts Education has the responsibility of maintaining the quality of graduate, master, doctoral programs and training in the fields of art and design. The purpose of the department is to train highly competent research, design and performance oriented artists having a deep understanding of basic concepts, modern design and performance methods.

The students are expected to go through the phases of research, recognition, experience, and production of original works of art. They are continuously encouraged to develop their own artistic and critical formation.

The curriculum is designed so as to prepare the students for teaching in secondary schools. The students are also awarded with a Teaching Certificate after completion of compulsory education courses, enabling them to teach at secondary schools.
# UNDERGRADUATE PROGRAM

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<td>Introduction to Arts and Aesthetics I</td>
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<td>Ceramic I</td>
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## Junior Year

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<td>Lettering I</td>
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<td>Art History III</td>
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<td>Arts Education Methods I</td>
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<td>Traditional Turkish Arts I</td>
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## Senior Year

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List of Optional Courses for Junior and Senior Years

Painting Education
Printing-Wall Painting
Graphic Education
Graphic Design
Printmaking Techniques
Typography
Illustration
Artistic Photography
Video Film TV
Printmaking Painting
Printing Painting
Sculpture Education
Sculpture Design

Ceramic Education
Ceramic Design
Ceramic Form
Ceramic Technology
History of Turkish Ceramics and
    Ceramic Tile
Textile Design Education
Textile Design
Textile Construction
Textile Technology
Textiles as Public Arts
Artistic Design Education
Painting Techniques
Form and Building

COURSE DESCRIPTIONS

Basic Plastic Arts Education: This course constitutes the basics of all main Art Branches. It introduces the principles and elements of Plastic Arts.

Drawing: This course introduces the quality and drawing peculiarities by examining and accepting all types of objects in nature as art objects.

Painting: This course takes the objects into account through their lines, light-dark colour levels, starting from simple to the complex one.

Printmaking Pictures: Evolutionary history of print techniques, design-making techniques, taught aquatint, cool print, ofort, schrott and mixed colour techniques are tried.

Graphic Design: The applications such as symbol, logo, pictogram, book-cover, brochures, poster, covers which are within the field of promotional graphics are made.

Perspective: The knowledge of seeing and displaying. The course contains the ways to display in the design of setting and observation through an open and plain focus point as if it is akin to eye.

Printmaking Techniques: They are means of having more than one piece by using a prototype which it aims at a widespread work in painting. High print, low print, print, plain print techniques are taught.

Contemporary Printmaking Techniques: Engraving (aquatint, cool print, act print) and silk screen techniques are taught.
Illustration: By using painting aspects like composition, colour perspective, etc, it leads to works of visual perspectives, thoughts through plastic communication.

Lettering: It teaches fine script in its full sense by using materials like rapido, trilin, brush on white and colourful papers, etc.

Photography: History of photography, introduction to camera and accessories, photograph taking and light control, rinse formula for negatives, card prints, dark room usage are taught.

Artistic Photography: This is a program for students who know Basic Photography. Photographic poster, solarization, tone separation, effective photography works are made.

Typography: The course leads to fields like promotion graphics where graphical expression is a must and students are expected to have their own style of script.

Video Film Television: General information about video, designs for recording are prepared. Television graphics, playback techniques, scenario design, video recording are designed and made.

Modelling: Three-dimensional design pieces are made by clay.

Sculpture Design: With materials like clay, plaster form-volume-light-shadow the relationship between concepts and plastic values are taught, moreover, functional sculptures, interior and exterior space, and sculpture are taught.

Free Ceramic Design: The works which connect art and industry are made by examining the aesthetical and technical aspects of industrial and environmental products.

Ceramic Technology: Introduction to ceramic as a material, clay forming, laboratory and application qualifications are presented.

Textile Design: In order to present an art formation, needed for textile design, multidimensional designs are made.

Textile Construction: Fibres, simple woven textile design, etc which constitute the basic theoretical and technical grounds of textiles are taught.

Textile Technology: A multidimensional introduction and relevant applications of various print and painting techniques are introduced.

Textile as Public Arts: To present introductory and technical information depending on the regional characteristics and their applications.

Work and Design: The shaping of the designed subject with material and tool through theoretical and applied works.
Form and Building (Up): To develop three dimensional thinking by using natural forms. (To do this using various within artistic values by materials and techniques.)

Aesthetics and Introduction to Arts: Artistic concepts are dealt with in a detailed way. Basics of aesthetics is presented.

Art History: The evolution of the history of art is taught theoretically, starting from the primitive ages up to the 20th century within chronological order.

Methods Art Education: The methods of Art Education, the History of Art Education, the growing up stages of child paintings, the aspects which affect creativity and obstacles to creativity are taught.

Painting Education: Plastical arts, drawing, painting, printing, perspectives, etc. Technical or compositional surveys at the specialization level. Explorations of new elements related to painting by individual experiment. The main course subjects are drawing and painting.

Graphic Design Education: These courses cover conceptual thinking and solutions to graphic problems for organizing and communicating messages to establish the nature of a product or idea.

Sculpture Education: An introductory studio course on the basic concepts, materials and processes of sculpture, with an emphasis on the understanding of perception and representation of three dimensional objects for students from other disciplines.

Ceramic Education: Creation of form using red, white and colored clay. Decoration techniques using glaze in accordance with design principles is emphasized. The course aims to develop free ceramics and artistic ceramic techniques.

Textile Education: Students create their own textile design. These courses aim to provide the students with the knowledge on designing their own designs and to enable the students to find jobs in the private sector.

Artistic Design Education: Introduces design concepts of form, pattern, color, composition, texture and shade, as well as the principles of two and three dimensional design without emphasizing function as a determinant. The creativity of the students are developed and their technical success in the fields is encouraged.
DEPARTMENT OF EARLY CHILDHOOD EDUCATION

Head of Department: Prof. Dr. Ayla OKTAY
Assistant Professors: Fatma ŞAHİN, Rengin ZEMBAT, Müzeyyen SEVİNÇ
Instructors: Filiz ÖKÇÜN, İclal KUŞİN, Alev ÖNDER,
Yıldız GÜVEN, Leyla FATHİ,
Ercan MERTOĞLU, Alev SINAR,
Tosun YALÇINKAYA

Language of Instruction: Turkish

The Department of Early Childhood Education offers a B.A. program with the purpose of developing the ability of the graduates to undertake roles in the professional life as kindergarten teachers. The students are also encouraged to develop social and scientific attitudes in relation to national issues in education. Field practice is among the requirements for a successful completion of the program.

UNDERGRADUATE PROGRAM

Freshman Year

First Semester
- General Psychology
- Introduction to Education
- Biology
- Mathematics
- Civilization & Hist. of Art
- Introduction to Sociology
- Atatürk Principles
- Turkish I
- Foreign Language I

Second Semester
- Developmental Psychology I
- Human Anatomy & Physiology
- Turkish II
- Health Ed. & First Aid
- Statistics in Education
- Int. to Philosophy
- Int. to Economics
- Atatürk Principles
- Turkish II
- Foreign Language II
### Sophomore Year

**First Semester**
- Developmental Psychology II
- *Int. to Early Childhood Ed.*
- Research Methods
- Nutrition

**Second Semester**
- Turkish Literature
- General Biology
- Math. for Elementary Schools
- Learning Psychology
- Research Techniques
- Arts, Crafts & Calligraphy
- Music II
- Physical Ed. & Games
- Atatürk Principles II
- *Int. to Preschool Ed.*
- Elementary Curriculum

### Junior Year

**First Semester**
- Teaching of Literacy
- Science & Nature for Elementary Schools I
- Teaching of Mathematics
- Teaching of Arts, Crafts & Calligraphy
- Teaching of Music
- Health & First Aid
- Teaching of Turkish

**Second Semester**
- Composition
- Social Sciences for Elementary Schools II
- Measurement & Evaluation
- Religion & Ethics
- Turkish Educational System
- Teaching of Physical Ed. & Games

### Senior Year

**First Semester**
- Introductory Methods of Music I
- Preparation to School in Early Childhood Education
- Measurement & Evaluation in ECE
- Research Project I
- Field Practice & Seminar I
- Development of Instructional & Play Material in ECE

**Second Semester**
- Instructional Methods of Music II
- Research Project II
- Instructional Methods of Physical Ed. & Play
- Field Practice & Seminar II
- Development of Instructional & Play Material in ECE
- Mental Health & Adaptation Problems in ECE
- Management & Supervision in ECE
- Drama & Dramatic Activities in ECE
COURSE DESCRIPTIONS

Turkish Language I (1st year 1st term): This is an introductory course to Turkish Language. The description and content of languages, structure of Turkish Language, writing a composition audiology, word categories (types of words).

Introduction to Sociology (1st year, 1st term): Definition of sociology, its topics and purpose are covered. Basic sociological concepts and processes like individual and society, social structure, sociological change, social relations are emphasized.

Mathematics (1st year, 1st term): A review of algebra and set theory; mathematical functions; linear equations; systems of linear equations; application of linear function and systems of equations.

History of Civilization and Fine Arts (1st year, 1st term): Theoretical basis, main concepts and development of civilization and art. Biographies of some famous artists.

Biology (1st year, 1st term): Living organisms, cells, organic structures, photosynthesis, reproduction and development, heredity, human biology, circulation system, healthy development, morphology of plants, physiology of plants, ecology of plants, techniques of growing plants, ecology of animals are studied.

Introduction to Education (1st year, 1st term): Social, psychological, philosophical foundations of education, history of education; relationship of education with other sciences; early childhood education centers and their aims; developments in the field of Early Childhood Education in Turkey are covered in this course.

General Psychology (1st year, 1st term): This is an introductory course. Topics like perception, learning, motivation, intelligence, personality and social relations are covered in this course.

Turkish Language II (1st year, 2nd term): Oral and written discourse; writing compositions; grammar, punctuation, talking and discussion principles and techniques; oral and written discourse disorders. Petition, report, invitation and telegram writing, analysis and criticism on some selections from Turkish literature.

Health Education and First Aid (1st year-2nd term): Concepts of health and first aid; public health and its importance; health education; family planning; immunization; basic health services; nutrition of students; development of basic hygienic habits; accidents and first-aid for school settings.

Statistics in Education (1st year-2nd term): This course lays the foundation for the course research methods. Statistical methods for the definition and summarization of data are introduced in the course.

Introduction to Philosophy (1st year, 2nd term): The definition and content of philosophy; the basic concepts. Historical development of philosophy; the relation between science and philosophy; characteristics of scientific and philosophical ap-
proaches; the basic disciplines of philosophy. The theory of knowledge, metaphysics, logic, ethics and esthetics; today’s philosophy and its topics.

**Introduction to Economics (1st year, 2nd term):** Definition of economy, basic concepts in economy, historical development of economy, economic systems, national income, development, education economy.

**Human Anatomy and Physiology (1st year, 2nd term):** Control systems, nervous system, human reproduction system, birth and development after birth, hormones, metabolism and nutrition are studied.

**Developmental Psychology I-II (1st year, 2nd term; 2nd year, 3rd term):** Covers the period from infancy to old-age. Basic theories of development are covered.

**Introduction to Early Childhood Education (2nd year, 3rd term):** Importance of early childhood education, aims and purposes of early childhood, functions of early education centers. Family as an educational surrounding, parents’ attitudes. Development of basic skills in early childhood. Mass Media and Early Childhood Education are covered.

**Research Methods (2nd year, 3rd term):** Topics like planning a research, data collection, analysis of data, different methods of analysis are covered in the course.

**Nutrition (2nd year, 3rd term):** Definition of nutrition, healthy nutrition, purpose of nutrition, various types of food, organic and inorganic food, energy levels of various food, food groups, diseases of children, vaccination, malnutrition are discussed.

**Learning Psychology (2nd year, 3rd term):** Theories and research on this topic are discussed. The definitions of learning and philosophical approaches to learning. Physiological fundamentals of learning. Forgetting, memory, perception. Theories of learning and teaching practices according to those theories are covered.

**Principles and Methods in E.C.E. (2nd year, 4th term):** Definition of early childhood education, developmental characteristics of children, play, early childhood education settings, approaches in early childhood education, role of mass media on early childhood education, role of early childhood education on school maturity are studied.

**Development of Language (2nd year, 4th term):** Psychological processes related to language development are covered. Periods of language development, semantic, phonological and syntactical development are discussed.

**Writing Skills (2nd year, 4th term):** Teaching writing skills, differences between the processes of speech and writing; types of writing and their characteristics; exercises on various writing methods.

**Child Literature (2nd year, 4th term):** Characteristics of publications for children, some examples from children’s literature, and some examples from Turkish children’s literature are covered.
Mother and Child Health (2nd year, 4th term): Child death in Turkey, wrong traditions, nutrition with mother milk, physical and psychological development of children, malnutrition, diseases of upper-respiratory system, tuberculosis, vitamin deficiency are covered. Visits to crèches. Vaccinations, contagious diseases are discussed.

Development of Play in Early Childhood (2nd year, 4th term): Importance of play, theories of play, encouraging play in nursery school settings are covered.

Art and Craft I - II (2nd year, 3rd-4th terms): Importance of art education, introducing Turkish and foreign artists, drawing techniques, characteristics of children's drawings in early childhood education, and colors are discussed.

Music I - II - III - IV (2nd year, 3rd-4th terms; 3rd year, 5th-6th terms): Hearing training, solfege, voice limits of preschool children, minor-major notes, teaching singing, dramatization of songs, choice of musical instruments, sense of rhythm, songs of children in play in Turkey and in the world, use of music in early childhood education, knowing about and practising various musical instruments.

Field-Practice (2nd year, 3rd-4th terms; 3rd year, 5th-6 th terms): This course provides the students with an opportunity to apply what they have learnt in a preschool setting. During the field practice students are supervised by faculty staff.

Adult Psychology (3rd year, 5th term): Basic concepts in developmental psychology, child development, adolescent development, young-adulthood are covered. Relations of adult with his/her family and with the community, marriage, divorce, working mother and problems associated with it, personality, middle-age, old-age, death are studied.

Program Development in Early Childhood Education I - II (3rd year, 5th-6th terms): Approaches on the development of early childhood education programs and their evaluation are discussed. How to select materials appropriate to the purposes of the program, arrangement of the activities, developing skills on the application of programs in school settings are covered.

Physical Education and Play I - II (3rd year, 6th term; 4th year, 7th term): Aims of physical education course are discussed. Musical games, rondos and folk dances are taught. Characteristics of a physical education instructor, program planning.

Group Processes and Communication (3rd year, 6th term): Group processes and dynamics among children in the kindergarten. Group cohesiveness, leadership, conflict resolution, setting rules. The role of communication in teaching. Effective communication with children and parents. Communicational skills, T-group experiences with students during one semester.

Special Education I - II (3rd year, 5th - 6th terms): Identification and education of physically and mentally handicapped children and children with superior-level of intelligence and talents are discussed. Special education methods in early childhood centers are discussed.
Creativity in Children and Creative Child Activities (3rd year, 6th term): Role of creativity in early childhood education, factors related to creativity, importance of developing creativity in education, methods of fostering creativity, creative activities in various topics are studied.

Development of Movement in Children and Movement Education (3rd year, 5th term): Motoric development, maturation, learning, play, socialization and physical exercise concepts are discussed. The relationship of intelligence with motoric development, social environment conditions and self-esteem triangle are covered. Importance of movement for children, coordination, strength, power concepts in early childhood education are covered.

Math and Science in Early Childhood Education (3rd year, 5th term): Definition of science, importance of science in early childhood education, questions of preschool age - children related to science and answers, experiments of science, definition of math, importance of math in early childhood education, teaching numbers by means of play, teaching concepts like less, more, small, large etc.

Art Techniques I - II (3rd year; 5th - 6th terms): Teaching several art techniques, such as water-color, skrafitto, clay, vitry, mosaic, painting etc.

Computers (3rd year, 5th-6th term): Computers and their applications; historical perspective; hardware-software; computers in education; methods of computer-based instruction; development of computer-based instruction; package programs and their applications for administrative purposes and in the classroom.

Preparation to School in Early Childhood Education and Basic Principles of Primary School Education (4th year, 7th term): Definition of the term "readiness", factors related to readiness to school and to reading, activities for preparing children to reading and writing in the period of early childhood education importance of primary school education in the lives of children.


Drama and Dramatic Activities Early Childhood Education (4th year, 8th term): Definition of drama pedagogy; its principles and goals, drama as a way of expressing feelings and self, dramatic activities in groups, role-play, games, engravingizations etc.), to increase social skills of children drama as a way of knowing about children and evaluating them.

Management and Supervision in Early Childhood Education (4th year, 8th term): Definition of management and its principles, management of a school, characteristics of a manager, laws, and instructions of school management, supervision principles.
Mental Health and Adaptation Problems in Early Childhood (4th year, 8th term): Definition of mental health, importance of mental health in education, mental adaptation and personality concepts, adaptation and behavioral problems in preschool children.

Instructional Methods of Physical Education and Play (4th year, 8th term): In this course, it is taught how musical games, rondos and folk dances can be instructed to preschool children.

Field Practice and Seminar I - II (4th year, 7th - 8th terms): During the seminar, students discuss their observations and problems related to field practice with their instructors.

The Development of Instructional and Play Material in Early Childhood Education I - II (4th year, 7th - 8th terms): The importance and place of educative play material in early childhood education, construction of these instruments and their use.

Instructional Methods of Music: Principles of music education; objectives of music education; telling tales by using music; relationship of music with other disciplines; creativity in music; some examples of national and international songs.
DEPARTMENT OF EDUCATIONAL SCIENCES

Head of Department: Prof. Dr. Muhsin HESAPÇIOĞLU
Professors: Betül AYDIN, Nurder ERTURAN, Hoşcan ENSARİ, Ezel TARKUN
Assistant Professors: Hasan ÇELİKKAŞ, Osman SEZGİN, Ethem LEVENT, Ayşen BAKİOĞLU, Nevin ERGİN
Instructors: Kanlye GÛVEN, Münevver G. ÖLÇÜM, Canan SAVRAN, Ahmet ŞİRİN, Nurhayat ÖZDAYI, Esra ASLAN, Nezihe ÖZGÜR, Levent DENİZ Sabiha MUTLU, Mustafa KANDIL, Elgiz AY, İbrahim T. ALBAYRAK, Zeynep IŞIK

Language of Instruction: Turkish

The Educational Sciences Department is organized for giving undergraduate degree in 4 years (8 semesters) on various fields of educational sciences.

The Department's main studies are carried out on education problems of Turkey and the world, finding solutions for these problems and contributing to the development of educational sciences.

The department is formed of 3 sections. The sections are:

- Planning and Economy of Education Management and Inspections Section.
- Education Programs and Teaching Section.
- Psychological Services in Education Section.

The graduates of this undergraduate program on psychological counselling and guidance work as a school counsellors in schools of Ministry of National Education, as Psychologists in hospitals and at children courts as a psychological counsellor, in industrial organizations, special counselling, and education organizations.

Graduate program on psychological services in education since 1987-1988 Academic Year, and a Ph.D.program on Educational Sciences since 1990-1991 Academic Year have been given by the Educational Sciences Department.
From 1986 Academic year the Education Science Department also gives a pedagogy course to people with 4 year tertiary degrees for a pedagogy certificate for teaching in secondary schools. In addition to the above activities, the Department organizes in-service education activities for different organizations.

**COURSE outline**

**Freshman Year**

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<th>First Semester</th>
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<tbody>
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<td>General Psychology I</td>
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<tr>
<td>Introduction to Education</td>
<td>Educational Sociology</td>
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<tr>
<td>Sociology</td>
<td>Social Anthropology</td>
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<tr>
<td>Human Anatomy and Physiology</td>
<td>Human Anatomy and Physiology</td>
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<tr>
<td>Introduction to Economics</td>
<td>Introduction to Philosophy</td>
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<tr>
<td>Mathematics I</td>
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<tr>
<td>Atatürk Principles I</td>
<td>Atatürk Principles II</td>
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**Sophomore Year**

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<tr>
<th>First Semester</th>
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<tr>
<td>Psychological Counseling and Guidance</td>
<td>Individual Assessment Techniques</td>
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<tr>
<td>Child Psychology</td>
<td>Adolescence Psychology</td>
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<tr>
<td>Educational Philosophy</td>
<td>Psychology of Learning</td>
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<tr>
<td>Statistics I</td>
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<tr>
<td>Pre-School Education</td>
<td>Logic</td>
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**Junior Year**

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<td>Principals and Techniques of Psychological Guidance</td>
<td>Vocational Guidance</td>
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<tr>
<td>Social Psychology</td>
<td>Research Techniques II</td>
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<tr>
<td>Measurement and Evaluation</td>
<td>Exceptional Children’s Education</td>
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<tr>
<td>Research Techniques I</td>
<td>Educational Administration</td>
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<tr>
<td>Principles and Methods of Teaching</td>
<td>History of Education</td>
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<tr>
<td>Theories of Psychology</td>
<td>Personality and Adjustment Problems</td>
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</tbody>
</table>
Senior Year

First Semester
Organization and Personnel in Guidance
Psychological Tests
Guidance Seminars
Psychological Seminars
Introduction to Computers

Second Semester
Development of Tests in
Psychological Guidance
Behavioral Disorders
Psychological Guidance Seminars
Fieldwork in Counseling
Education of Hearing and Visual
Impairment Sufferers

COURSE DESCRIPTIONS


Introduction to Education: The meaning, clarification and characteristics of education. The relation between education and society, education and Philosophy, education and psychology, education and economy, education and administration. Turkish education system in different periods.

Sociology: Concepts of sociology and definitions of society. Social event and social phenomenon. Social structure and its characteristics. Social status, social roles, social changes, development and institutions.

Human Anatomy and Physiology I: Cells and their parts, layers and skins, skeleton, bones, joints, skeleton muscles, blood, physiology of blood, circulation, lungs, human metabolism and health.


Mathematics I: Trigonometry, logarithm, algebraic equations, divisons, arithmetic sequences, geometrical sequences, definitions of maximum and minimum curves.

General Psychology: Person and anxiety, characteristics of anxiety, its sources, conflicts, defence mechanisms affect of anxiety, methods to reduce it, self, ideal self, definition of it, development of self, aggression, its physiology, aggression according to social learning, aggression and self, therapy of aggression. Characteristics of adjusting persons, abnormal behaviors, assessment of psychological disorders, methods of therapy, assessment scales.
Sociology of Education: Briefing in sociology and education. Methods of educational sociology. Particulars shaping social life, socialisation. Relations between culture-society, and education, school culture and culture, social responsibility and education, social changes and school as a social institution, social needs and education, curriculums, social politics and education, social control of education, educational activities in different social structures.

Social Anthropology: The difference between social and biological sciences. How social anthropology began, basic disciplines in it. Differences in terminologies, methods of anthropology, culture concept, sources of culture, contexts of culture, cultural shock, language and communication, beliefs, attitudes, cultural evaluation, civilizations population, demographic problems, Turkish Moslem Civilization and Western Civilization.

Human Anatomy and Physiology II: Digestive system, discharge system, digestive glands, nervous system, brain spinal cord, glands, system of generation in males and females, embryology, sensory organs.

Introduction to Philosophy: Humans and ways of thinking patterns. Knowledge, learning and thinking. Dogmatic and irregular knowledge, scientific knowledge and its way of thinking, philosophic knowledge and its way of thinking, philosophy and society, individual and society, philosophical problems and ways of solving, dogmatism, scepticism, scholastic thinking, critical thinking, positive thinking, source of knowledge matters, rationalism, empiricism, pragmatism, moral codes, liberty values, determinism, aesthetics.

Mathematics II: Definition of integral, methods of integration, exponents, radicals, lowest common multiple (LCH') highest common divisor (HCF') matrices, matrices and equations, determinants, determinants and equations, estimation of percent, probability.

Psychological Counseling and Guidance: Student individual services, psychological services in education, fields in counseling and guidance, variations, group activities, organization in guidance and personnel, characteristics of counseling and guidance in primary and secondary education. Characteristics of different school ages and their needs.


Statistics I: Basic concepts and definitions. Showing datas on tables and graphics, central tendency measures, distribution, cumulative distribution, simple structure, normal distribution, normal-probability curve, correlation, regression.


Assessment Technics of an Individual: Methods and scales for assessment. Its importance within counselling. Principles of applying and evaluating these technics. Questwnare, questin list, wants eist, comparing abilities and success, interviews, sosymetry, sosyodrama, psychodrama, play theraphy. Psychological tests, their characteristics, choosing, applying and evaluating.

Adolescence Psychology: Relavent terms, development of embryo, as a baby and a child, characteristics of adolescence, development of body, gender characteristics, relating problems and anxieties, periods, self concept. Culture and becoming a stranger as an adolescent. Classroom teacher and adolescents.


Statistics II: Correlation, phi, tetrachoric, point bi serial, bi serial, concordance coefficient, partial, multiple, regression. Inferential statistics estimation, point estimation interval testing hypothesis.


Measurement and Evaluation: Scales, nesessary elements, validity and reliability, objectivity, selectiveness, representativeness, practicality, sampling, categorising,
preparing. Tests and scales used in education. Statistical evaluation of scores, graphics, analysing test items.

Technics of Research I: Science and research and their relevance Classification of research in education models of research.

Principles and Methods of Teaching: Education programmes, historical development, education, teaching, and class process definitions, functions, aims, programmes' content, and planning, teaching principles, individual study methods, evaluation of success and its functions.

Psychological Theories: 1. Phylosophical basic to contemporary psychology platon, a) The nature of reality, b) Characteristics of soul, 2) Aristo, soul, perceptions, memory, thinking, common sense, 3) Middle ages and Renaissance; Thomas Aquinas and Aristo, union of soul and body, 4) Rene Descartes, Mechanical view of body, parts of the intelligence, 5) Wilhelm Wundt, analysing concious, theory of senses, field of consciousness, 6) William James, autagenic will, dynamics of consciousness, self concepts, 9) Behaviorism, conditionings, 10) Edward Thorndike, try and error, theories of learning, 11) Gestalt psychology Max Wertheimer phenomenon, perceptual organization, 12) Contemporary psychology/mind-body determinism.


Research Technics II: Scientific research and education. Education of research. Research in education. Research process and technics, problem, aim, importance, hypothesis, boundaries, definitions, types of research model, sampling, datas and collection of datas, solving findings and commentary, preparing to document research.


Personality and Adaptation Problems: Psychoanalysis and Freud’s doctrine, defence mechanisms, individualist psychology, Alfred Adler, analytical psychology Carl Gustav Jung, typology and oligophrenia, pathological personality structures, Otto Rank Karen, horney, eclectic approach. Carl Rogers, neurotic anxiety, hysteria. Ericson and his development periods, existenial psychology, psychosomatics, phobias, neurotic depression, obsessive-compulsive neurosis.

Organising Psychological Counselling and Guidance and Administration of Personnel: Study of the system within Turkish education system Ministerial, town and school level. Study some other countries systems. Within the organization aims, principles, areas, boundaries, organizational dimentions. Preparing the plan and administring. Personnel, their qualities, as a proffession.

Psychological Tests: Binet and early intelligence tests. How to apply (STAI, CATA) Study meechster. Bellevue Scale, using CattellBeck, I-Q Scales free of cultural influence, ability scales, scales for special groups, study and apply Louisa Düss scale, intelligence theories, projective technique, TAT, tests for infants and preschool children. Rorschach test study on MHPI.


Introduction To Computer Class: The aim of this class is to allow the students to learn the basic theories and skills of computers. With this objective of the class, the basic theories and skills are as follows:
a) To introduce the equipment and software dimensions of the computer;
b) To improve the skills of DOS operating system;
c) To teach the language of BASIC programming.
Development of Test in Psychological Guidance: To develop Test and Scales in Guidance Tests and scales used in psychological counselling and guidance. Principles in applying and interpreting data. Materials to gather information and to give information. And some others. Tests can be prepared by the class. Planning to develop tests. Name the test; purpose; introduction, essential points during preparation; preparing the test, essential points during the administration of the test. Evaluation of the results. Comments on the results, evaluation of the test, references.


Psychological Counselling Seminar: Psychological difficulties and problems of undergraduate students. Psychological counselling services to those students are to be discussed, complaints, symptoms and therapy technics. Educational sciences students, social backgrounds, why have they chosen this profession, and how is it affecting their success. Characteristics of being a successful teacher, guidance duties. Motivation, its effects on success. The effect of teaching methods on students success. The socio-economic backgrounds of the students of the Dept-of preschool and primary school teaching, and their views of being a teacher for preschool, Primary school.

Field work of Psychological Counselling and Guidance: In this course students are required to carry out an individual counselling and a group guidance problems related to these practise are to be discussed within the class.

Fieldwork in Teaching: Fieldwork takes place within the 8. semester for a month. Undergraduate students in psychological counselling and guidance do their practise in secondary schools in Istanbul.

Education of People With Hearing and Visual Impairment: The aim of the course is acquisition of basic knowledge about people with hearing and visual impairment. Definition and classification, measurement of abilities, cause of the disability, psychological and behavioural characteristics, and educational considerations will be discussed. Students are expected to make observations in schools and family environments.
DEPARTMENT OF ELEMENTARY TEACHER TRAINING

Head of Department : Doç. Dr. Osman ÖZCAN,
Associate Professors : Adil ÇAĞLAR, Ayla GÜRDAL
Assistant Professors : Cemil ÖZTÜRK, Vîcdan TAŞDEMİR,
                      Cemal TÜRER
Instructors : Oya ABAC, Nilüfer ÇEPOĞLU, Mehmet İNAN,
              Ayşen ARSLAN, Orhan Melih SERMUTLU,
              Nilgün ULUSER, Oktay AYDIN,
              Esra MACAROĞLU, Cafer VELİOĞLU,
              Ahmet Şükrü ÖZDEMİR, Mustafa AKSOY,
              Ertuğrul ORAL, Nermın ÖZCAN,
              Raziye ALTINÖZ

Language of Instruction : Turkish

The Department of Elementary Teacher Training offers a 4-year teacher education program which prepares students for teaching in 8-year schools as well as 5-year elementary schools.

The students are provided with a firm theoretical and practical foundation in education to prepare them to carry out the elementary education in the highest scope.

The students are also encouraged to develop social and scientific attitudes in relation to national issues in education.
# UNDERGRADUATE PROGRAM

## Freshman Year

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<th>First Semester</th>
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<tbody>
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<td>General History</td>
<td>Turkish History I</td>
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<tr>
<td>General Geography</td>
<td>Geography of Turkey</td>
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<tr>
<td>Citizenship</td>
<td>Basic Mathematics II</td>
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<tr>
<td>Basic Mathematics I</td>
<td>General Biology</td>
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<tr>
<td>Int. to Education</td>
<td>Educational Sociology</td>
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<td>Int. to Psychology</td>
<td>Developmental Psychology</td>
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<tr>
<td>Int. to Sociology</td>
<td>History of Civilization and Art</td>
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<td>Int. to Philosophy</td>
<td>Foreign Language II</td>
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<td>Turkish I</td>
<td>Turkish II</td>
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<tr>
<td>Atatürk Principles I</td>
<td>Atatürk Principles II</td>
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## Sophomore Year

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<th>First Semester</th>
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<tr>
<td>Turkish History II</td>
<td>Turkish Literature II</td>
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<tr>
<td>Turkish Literature II</td>
<td>Mathematics for Elementary Schools</td>
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<tr>
<td>World Geography</td>
<td>Learning Psychology</td>
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<tr>
<td>Philosophy of Education</td>
<td>General Teaching Methods</td>
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<td>Basic Chemistry</td>
<td>Arts and Crafts and Calligraphy II</td>
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<tr>
<td>Basic Physics I</td>
<td>Music II</td>
</tr>
<tr>
<td>Arts and Crafts and Calligraphy I</td>
<td>Physical Education and Sports II</td>
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<tr>
<td>Music I</td>
<td>Primary School Programs and Their</td>
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<tr>
<td>Int. to Special Education</td>
<td>Development</td>
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<td>Physical Education and Games I</td>
<td>Int. to Early Childhood Education</td>
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<tr>
<td>Atatürk Principles III</td>
<td>Basic Physics II</td>
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<td>Composition</td>
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<td>Atatürk Principles IV</td>
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## Junior Year

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<tr>
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<td>Statistics</td>
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<tr>
<td>Teaching of Science and Nature for</td>
<td>Teaching of Social Sciences</td>
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<tr>
<td>Elementary Schools</td>
<td>Measurement and Evaluation</td>
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<tr>
<td>Teaching of Mathematics</td>
<td>Religion and Ethics</td>
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<tr>
<td>Teaching of Arts and Crafts and</td>
<td>Turkish Educational System</td>
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<td>Calligraphy</td>
<td>Research Methods</td>
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<tr>
<td>Teaching of Music</td>
<td>Group Dynamics and Communication</td>
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<td>Teaching of Turkish</td>
<td>Field Practice</td>
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<td>Field Practice</td>
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<tr>
<td>Teaching of Physical Education and</td>
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<td>Sports</td>
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<td>Elective</td>
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Senior Year

First Semester
Teaching of Science and Nature
Teaching of Social Sciences
Educational Technology
Guidance
Computer I
Adult Education
Nutrition
Health Education and First Aid
Elective
Field Practice

Second Semester
Design and Construction of Educational Media
Administration and Inspection of Schools
Mental Health
Computer II
Child Literature
Turkish Culture
Elective
Field Practice and Seminar
Application of Teaching methods

COURSE DESCRIPTIONS

Turkish Language I: This is an introductory course to Turkish language. The description and content of languages, structure of Turkish language, writing a composition, audiology, word categories (types of Words).

General History I: This course will include major topics such as a description of history and history of different civilizations.

General Geography: Description of geography, its importance in relation to other sciences, general world geography and important concepts in geography.

Citizenship: Some of the concepts related to the course. Rules, regulations, policies of social life; justice system; constitution; the evaluation of the current political approaches and their threats to democratic regime.

Elementary Math I - II: Introduction to the basic concepts about arithmetics, geometry and math and its importance.

Introduction to Education: Social, psychological, philosophical foundations of education, history of education, relationship of education with other sciences; early childhood education centers and their aims; developments in the field of Early Childhood Education in Turkey are covered in this course.

General Psychology: This is an introductory course. Topics like perception, learning, motivation, intelligence, personality and social relations are covered.

Introduction to Sociology: Definition of sociology, its topics and purpose are covered. Basic sociological concepts and processes like individual and society, social structure, sociological change, social relations are emphasized.

Introduction to Philosophy: The definition and content of philosophy; the basic concepts. Historical development of philosophy; the relation between science and
philosophy, characteristics of scientific and philosophical thinking; the methods of thinking and philosophy. The theory of knowledge, metaphysics, logic, ethics and aesthetics; today’s philosophy and its topics.

**Turkish Language:** Oral and written discourse; writing compositions; grammar, punctuation, talking and discussion principles and techniques; oral and written discourse disorders. Petition, report, invitation and telegram writing; analysis and criticism of some selections from Turkish literature.

**Turkish History II:** A general outlook on Turkish States in Central Asia; Turkish States before converting to Islam; Turkish States and Islam; the establishment of the Ottoman Empire.

**Geography of Turkey:** Turkey’s location in the world; its neighboring countries; seas; climate factors; rivers, lakes; plantation animals; population in major cities; regional geography within borders; economical geography; transportation and trading.

**Physics:** Some of the concepts such as unit systems; dynamics, optics; static electricity; liquids and mass-weight-pressure.

**Educational Sociology:** The main concepts of Educational Sociology; its field of interest; research methods in Educational Sociology; education-society relationship, education-school relationship, education and social development.

**Turkish History:** The establishment and ascending periods of Ottoman Empire; the economic, cultural and political success of the Empire; State administration; the decline of Ottoman Empire. The relations with European and neighbouring countries. The first World War and War of Independence. The establishment of Turkish Republic.

**World Geography:** The continents and some of the outstanding countries and a general outlook on their physical, economic and human geography; the geographic situation of the neighbouring countries and their relations with Turkey; the basic features of some developing and developed countries and their geographic resources.

**Chemistry:** Basic definitions and concepts of chemistry. The states of matter; change of state of matter; the classification of matter. The concept of atom, molecule. The periodic table and properties of some important matters. Chemical symbols; acids and bases; simple and compound elements. Chemical reactions; ions and electricity.

**Arts and Crafts and Calligraphy:** The importance of arts and crafts and calligraphy; the types of calligraphy. Writing in normal letters and in italics. Tools of calligraphy and types of tips. Samples of three dimensional forms. Illustrated stories.

**Music:** Description of music, some concepts; music 'ecoles' their features; various music types in Turkey; the role of music in education; solfeggio education practices; song selection and evaluation for different grades; music lesson plans; examination of music programs in curriculum.
Physical Education and Play: Aims of the physical education course are discussed. Musical games, rondos and folk dances are taught. Characteristics of a physical education instructor, program planning; beginning, middle and the part of a physical education course are discussed.

General Biology I: A description of biology, its importance and its content; the beginning of life; genetics and evolution. Some anatomical and physiological features of living creatures. The cell structure, heredity, reproduction and development. The basic features of human, plant and animal biology.

Elementary Mathematics: An abstract of history of mathematics: counting and number, prime numbers and factorization. The notion of set and applications, arithmetic problem solving. Algebraic problem solving and comparisons; rational numbers; different counting systems. Non-metric geometry and metric geometry. Examination of elementary mathematics curriculum.

Developmental Psychology: Covers the period from infancy to old-age. Basic theories of development are covered.

Learning Psychology: Theories and research on this topic are discussed. Learning, forgetting and memory are among the topics emphasized.

Statistics in Education: This course lays the foundation for the course research methods. Statistical methods for the definition and summarization of data are introduced in the course.

Introduction to Early Childhood Education: Importance of early childhood education, purposes and functions of early education centers, various programs in ECE are childhood.

Research Methods: Topics like planning a research, data collection, analysis of data, different methods of analysis are covered in the course.

General Instruction Methods: Discussing some concepts; instructional systems; learning environments and interaction in learning environments; computer aided instruction, programs and plans of instruction; instructional media and its relations with instructional methods; practice of preparation of instruction.

Development of Elementary Curriculum: Basic concepts about developing the curriculum; the importance of the formal instruction; general and specific aims; contents; time tables; some problems related to the development of curriculum and proposals for their solutions.

Teaching of Literacy: Basic objectives and principles; methods; instructional activities; teaching writing to advanced and underaverage students, reading instruction; studies of students needing special education in reading; teaching illiterates in advanced grade levels.
Science and Nature in Elementary Schools: The importance of science and technology in society. Space, solar system and earth; living and non-living things. The three states of matter; atoms and molecules; heat, light, electricity and magnetism; sources of energy. Human anatomy and physiology.

Teaching of Mathematics: Foundations for planning effective instruction. Mathematics and problem solving; early experiences in mathematics; extending understanding of numbers and numeration. Teaching addition, subtraction, division and multiplication of whole numbers; teaching of geometric concepts. Fractions and decimals; measurement.

Teaching of Arts-Crafts and Calligraphy: The aims and principles of arts-crafts and calligraphy in elementary schools. The examination of tools; art and education and its historical development; the methods and techniques of teaching of arts-crafts and calligraphy; developing creativity in arts; development of children's painting.

Teaching of Music: Principles of music education; objectives of music education; telling tales, stories using music; relationship of music with other disciplines; creativity in music; some examples of national and international songs.

Health Education and First Aid: Concepts of health and first-aid; public health and its importance; health education; family planning; immunization; basic health services; nutrition of pre-schoolers; development of basic hygienic habits; accidents and first-aid for school settings.

Teaching of Turkish: Importance of teaching native language; objectives and principles of Teaching Turkish; language development methods and teaching, media of Teaching Turkish, measurement and evaluation in teaching Turkish.

Observation in Schools: The importance and the objectives of planned observation in education. Direct and indirect observation and their qualities. Some of the matters the students should take into consideration during the observation period.

Composition: Oral and written discourse; structure and types of paragraph; development and exercises of oral and written discourse; evaluation methods of composition.

Social Sciences for Elementary Schools: Importance and concepts of Social Sciences in curriculum; 4th grade subjects' and 5th grade subjects' evaluation and development of curriculum under the light of secondary school courses.


Religion and Ethics: Some concepts about religion, culture and ethics; the spread of religions; freedom of conscience; requirements of Islam and ways of praying; the
importance and the role of ethics in social life; an examination of the program on subject area.

**Turkish Educational System:** Some concepts about the educational system; the educational systems of Ottoman Empire and Turkish Republic; the development of educational system as an institution; central and local education systems. The aims, principles and methods of Turkish educational system. The problems concerning Turkish educational system.

**Field Practice:** A general concept of field practice; the requirements for the teachers and teacher trainees; participating in field practice; preparing programmes; participating in activities related to administration and guidance.

**Nutrition:** Definition of nutrition, healthy nutrition, purpose of nutrition, various types of food, organic and inorganic food, energy levels of various food, food groups, diseases of children, vaccination, malnutrition are discussed.

**Teaching of Science and Nature:** Content and quality of Science and Nature; its objectives, methods of instruction; international unit system and dimension analysis; Lab and experimental studies; examples of instruction and evaluation.

**Teaching of Social Sciences:** Content and quality of Social Sciences; its objectives and principles; its importance in curriculum; methods of instruction; preparation and usage of instructional media in social sciences; development of curriculum for social sciences; evaluation of curriculum content.

**Educational Technology:** Sensory organs in education, learning and instruction; types of tools and materials; their features and their usage in the classroom.

**Guidance and Mental Health:** Guidance and education, psychological services in schools; the principles of guidance; mental health, adaptation and personality; psychological tests; principles of professional and educational guidance, Adaptation and defense mechanisms, important psychological illnesses and ways of protection.
DEPARTMENT OF FOREIGN LANGUAGE EDUCATION

Head of Department : Prof. Dr. Semahat YÜKSEL

The Department of Foreign Languages Teaching comprises of three branches where programs are geared to providing the necessary tools and background for prospective teachers of English, German, and French.

DEPARTMENT OF ENGLISH LANGUAGE EDUCATION

Head of Department : Prof. Dr. Özcan BAŞKAN
Professor : Nazan AKSOY
Assistant Professors : Murat SEÇKİN, Leylâ ILGİN
Instructors : Belgin BELLİSAN, Gönül DEMİRCAN,
              Oya Bașer BERK, Nuray BELLİSAN,
              Tennur GÖKSER, Zeren ÇIDAM,
              Azmi ÖZKARDEŞ, Sinan Okan ÇAVUŞ,
              Şeref ÖZEN, Aydın EĞECİOĞLU

Language of Instruction: English

Department of English Education, which has been offering Bachelor of Arts degrees as a part of Department of Foreign Languages Education since 1982, was established in 1994. The department has more than 500 students and receives each year 120 students through the Central University Entrance Examination. The program emphasizes a coordination between the courses offered by various departments of education and its own courses on teaching of English, literatures in English, linguistics, and translation studies. Through the Graduate School for Social Sciences, the department offers Master of Arts (in English Literature and Language Teaching) and Doctor of Philosophy degrees.
### UNDERGRADUATE PROGRAM

#### Freshman Year

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<td>Reading II</td>
</tr>
<tr>
<td>Writing I</td>
<td>Writing II</td>
</tr>
<tr>
<td>Conversation I</td>
<td>Conversation II</td>
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<tr>
<td>Grammar I</td>
<td>Grammar II</td>
</tr>
<tr>
<td>Phonetics</td>
<td>Translation ET</td>
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#### Sophomore Year

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<tbody>
<tr>
<td>Reading III</td>
<td>Reading IV</td>
</tr>
<tr>
<td>Writing III</td>
<td>Writing IV</td>
</tr>
<tr>
<td>Conversation III</td>
<td>Conversation IV</td>
</tr>
<tr>
<td>Grammar III</td>
<td>Structure IV</td>
</tr>
<tr>
<td>Translation E-T II</td>
<td>Translation T-E I</td>
</tr>
<tr>
<td>Cultural Background</td>
<td>History of English Literature</td>
</tr>
</tbody>
</table>

#### Junior Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Writing V</td>
<td>Writing VI</td>
</tr>
<tr>
<td>Translation T-E II</td>
<td>Translation E-T III</td>
</tr>
<tr>
<td>Comparative Grammar</td>
<td>Linguistics</td>
</tr>
<tr>
<td>Selections From Literature I</td>
<td>Selections From Literature II</td>
</tr>
</tbody>
</table>

#### Senior Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Translation E-T IV</td>
<td>Translation T-E III</td>
</tr>
<tr>
<td>History of English Language I</td>
<td>History of English Language II</td>
</tr>
<tr>
<td>Teaching Methodology I</td>
<td>Teaching Methodology II</td>
</tr>
<tr>
<td>Selections From</td>
<td>Selections From</td>
</tr>
<tr>
<td>Contemporary Lit. I</td>
<td>Contemporary Lit. II</td>
</tr>
</tbody>
</table>

Semantics
COURSE DESCRIPTIONS

Reading: This course is designed to stimulate students into 'entering' texts written in English through the technique of 'close reading' by which students are expected to accumulate the necessary input required for the language skills of writing, conversation, and translation.

Writing: This course is designed to allow students to transfer their passively acquired linguistic input into a formally written form, so that they can acquire, and gradually develop the skill of expressing their thoughts in a well-designed format.

Conversation: The course allows students to put into oral practice what they acquire during their reading course, as well as to gain a greater degree of fluency during actual speaking.

Grammar: The twofold aim of this course is to correct actual mistakes of the students as well as to direct attention to potential errors likely to be made during their use of English.

Translation English-Turkish: In this course, the activity of translation into Turkish is utilized to let students become conscious of hidden subtleties of meaning in texts. First 'deconstructing' a text, and then 'reconstructing' it in another language, namely Turkish allows students to have a firm command of English.

Translation Turkish-English: In this course, the idea is to evaluate the command of English displayed by students under prearranged conditions, when students are prevented from selectively using familiar items, but are obliged to integrate meanings in texts from native Turkish into well-formed English texts.

Language Structure: This course is offered as an advanced grammar of English in which text analysis is made not in terms of regular grammatical dissection, but in those of intratextual relationships such as 'coherence' 'cohesion', 'anaphora', 'reference', and 'allusion'.

Comparative Grammar: The aim of this course is to enable students to achieve a greater understanding of English grammar in terms of their native tongue; and to become conscious of the finer points in Turkish grammar in the light of English structure.

Cultural Background: This course is specially designed to provide students with such extratextual information as the historical background and sociological profile of the Anglo-Saxon world, as well as of the Western culture, so that texts are evaluated in their proper context.

History of English Literature: This course is offered as a background to the development of English literature from its beginnings up to the modern period, so that students should have a better understanding of literary output in the language they are studying.
Selections from English Literature: In this course, selected texts from various periods of English literature are subjected to 'close reading', by which students can follow the mainstream of literary development. Such an approach of 'intertextuality' among the literary output of different phases is carried out in conjunction with the accompanying course 'History of English Literature'.

Linguistics: This particular course is designed to provide a broader perspective to the students of English concerning the inner working of the human language, so that they will have a better understanding of the function of the English language they are studying.

History of the English Language: This particular course is specially designed to help students understand the present panorama of the English language, by making various references to its older stages within the context of chronological development.

Selections From Contemporary Literature: This course emphasizes the literature of the modern period, especially that of the present century in which literary work seems to be significantly influenced by socio-economic development within the context of Western European culture.

Semantics: This course is supplementary to the course of linguistics, with the difference that emphasis here is on the changes of meaning in words which are, after all, the building-blocks of language.

Teaching Methodology

In this highly relevant course, students are first taught about the ways and means of teaching English to others, and then are allowed practice sessions in which they prepare for actual teaching through the process of simulation.
DEPARTMENT OF FRENCH LANGUAGE AND LITERATURE

Head of Department : Prof. Dr. Hüseyin GÜMÜŞ
Associate Professor : Simone ARTUK
Assistant Professors : Hüsnü ARSLAN,
                      Ümran DERKUNT
Instructors : Dr. Şahalı AYDOĞDU,
             Dr. Mehtap ÖNEN, Dr. Tülin DENİZ,
             Fatma DOĞAN, İffet KARAMUK,
             Mehrizat POYRAZ, Cihat KOÇ,
             Fusun ŞAVLI, Ertuğrul ARPAT

Language of Instruction : French

The Department of French Language and Literature offers an undergraduate program. The program seeks to give the broadest possible exposure to French history, literature, tradition and philosophy. The major is broadly based and interdisciplinary, offering the student an opportunity to become well-acquainted at the undergraduate level with the French heritage and present-day societies.

UNDERGRADUATE PROGRAM

Freshman Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>French Grammar</td>
<td>French Grammar</td>
</tr>
<tr>
<td>Translation French-Turkish</td>
<td>Translation French-Turkish</td>
</tr>
<tr>
<td>Translation Turkish-French</td>
<td>Translation Turkish-French</td>
</tr>
<tr>
<td>Text Analysis</td>
<td>Text Analysis</td>
</tr>
<tr>
<td>Redaction</td>
<td>Redaction</td>
</tr>
<tr>
<td>Phonetics</td>
<td>Phonetics</td>
</tr>
<tr>
<td>Conversation</td>
<td>Conversation</td>
</tr>
<tr>
<td>Introduction to French Literature</td>
<td>Introduction to French Literature</td>
</tr>
<tr>
<td>Turkish Grammar</td>
<td>Turkish Grammar</td>
</tr>
</tbody>
</table>
Sophomore Year

First Semester
French Grammar
Translation French-Turkish
Translation Turkish-French
Text Analysis
Composition
Conversation
Syntax
French Literature and Civilization
English

Second Semester
French Grammar
Translation French-Turkish
Translation Turkis-French
Text Analysis
Composition
Conversation
Syntax
French Literature and Civilization
English

Junior Year

First Semester
French Grammar
Comparative Grammar
Introduction to Linguistics
Dissertation
Translation French-Turkish
Translation Turkish-French
Text Analysis
French Literature and Civilization
English

Second Semester
French Grammar
Comparative Grammar
Introduction to Linguistics
Dissertation
Translation French-Turkish
Translation Turkish-French
Text Analysis
French Literature and Civilization
English

Senior Year

First Semester
Translation French-Turkish
Translation Turkish-French
Text Analysis
Dissertation
French Literature and Civilization
English
Culture and Tourism

Teaching Methodology

Second Semester
Translation French-Turkish
Translation Turkish-French
Text Analysis
Dissertation
French Literature and Civilization
English
Graduation Thesis
Culture and Tourism
Teaching Methodology

COURSE DESCRIPTIONS

French Grammar: French language grammar is studied both theoretically and practically.

Translation French-Turkish: Texts on literature, language, culture, tourism, and types of correspondance in French are translated into Turkish and problems of translation are studied.
Translation Turkish-French: Texts in Turkish are translated into French paying special attention to problems that occur during translation.

Text Analysis: The ways of approaching and analysing the texts chosen from French writers and their works are studied.

Redaction: In this course, writing skill of the students is improved by the help of the authentic sample texts.

Composition/Writing: In this course, a variety of writing methods are studied on various topics in French language.

Dissertation: In this course, academic research methods are studied with examples. Planned research methods are studied.

Phonetics: In this course, pronunciation and phonetic-transcription are studied.

Conversation: This course helps students put into oral practice what they acquire during their other courses.

Sentax: In this course sentence structure and text are studied in French.

Comparative Grammar: Turkish, Grammar and French Grammar are studied comparatively in the light of examples from both languages.

Introduction to Linguistics: In this course linguistic trends and concepts are studied.

Linguistics: In this course, linguistic trends and methods are taught in an applied way.

History of French Culture and Literature: In this course, the history of France, her culture, and literature are studied starting from the beginning until today.

English: In this course, English Language is being taught as a second foreign language.

Culture and Tourism: In this course, students learn terms related to tourism and culture while learning about the historical and touristic places in Turkey.

Turkish Grammar: In this course, Turkish Grammar is studied.
Department of German Language and Literature

Head of Department: Prof. Dr. Fatma ERKMAN
Professors: Hans H. REICH, Semahat YÜKSEL
Assistant Professors: Güler MUNGAN, Mustafa USLU
Instructors: Dr. Ferüzan AKDOĞAN, Dr. Cemal YILDIZ,
Dr. Özalp ŞAHİN, Dr. Erdoğan BAYKAL,
Dr. Şebnem YÜCE
Fatma DAL, Berrin KASAPOĞLU,
Muadil ERDEM, Tevfik BOZKURT, Hüseyin AKKOÇ

Language of Instruction: German

The Department of German Language and Literature offers a 4-year undergraduate program. Besides offering linguistic training, the program seeks to broaden the student's cultural outlook by acquainting him with the literature and customs of Germany. The program also includes an option that prepares students for teaching in secondary school level.

Undergraduate Program

Freshman Year

First Semester

- Phonetics
- Reading I
- Conversation I
- Writing
- German Grammar I
- Translation German-Turkish I

Second Semester

- Phonetics
- Reading II
- Conversation II
- Writing II
- German Grammar II
- Translation Turkish-German I
## Sophomore Year

### First Semester
- German Grammar III
- Reading III
- Conversation III
- Writing III
- Translation German-Turkish
- Structure I
- History and Geography of Germany I

### Second Semester
- German Grammar IV
- Reading IV
- Conversation IV
- Writing IV
- Translation Turkish-German
- Structure II
- History and Geography of Germany II

## Junior Year

### First Semester
- Grammar III
- Writing III
- History of German Literature I
- Linguistics I
- Comparative Grammar I
- Translation German-Turkish
- Teaching Methodology I

### Second Semester
- Grammar IV
- Writing IV
- History of German Literature II
- Linguistics II
- Comparative Grammar II
- Translation Turkish-German
- Teaching Methodology II

## Senior Year

### First Semester
- History of German Literature III
- Contemporary German Literature I
- History of German Language I
- Semantics I
- Translation German-Turkish II
- Teaching Methodology I
- English I

### Second Semester
- History of German Literature IV
- Contemporary German Literature II
- History of German Language II
- Semantics II
- Translation Turkish-German II
- Teaching Methodology II
- English II

## COURSE DESCRIPTIONS

**German Grammar I:** In this course, theories on grammar, word classes and their functions in sentences are studied.

**Reading I:** This course aims to give the students the ability to comprehend and interpret the texts in German. Different texts from tale to novel are studied.

**Conversation I:** In this course, the terms ‘communication’, ‘metacommunication’, ‘rhetoric’, ‘argumentation’, ‘counter argumentation’ are explained and illustrated with examples.
Writing I: This course aims to give the students the ability to express their own thoughts in written form. It also helps the students develop their vocabulary.

Phonetics I: In this course the students learn about the studies on phonetics and phonetics course help them correct their pronunciation mistakes.

Translation G-T I: In this course, translation theories, the difficulties faced during translation in German and Turkish are studied. Text used in this course covers a wide range of subjects.

German Grammar II: This course is a continuation of the first year Grammar course. In this course, students are supposed to reach the required proficiency level for PNDS exams.

Reading II: In this course, types of poetry and drama are studied. The students learn about the theories of drama of Lessing and Dürramatt and study their works.

Conversation II: This course prepares students for the third year 'Introduction to linguistics' course. This course aims to give the students the ability to do critical reading and to understand the texts. Apart from this, linguistic terms such as communication, language, signifier, structuralism etc. are discussed.

Writing II: The subjects studied in the first semester are resume/summary and report/protocol writing during which personal language usage is given special importance.

During the second semester the textual coherence (Textkohärenz) is focused, and exercises on syntactic/semantic problems are given, and also students are instructed on how to write business letters, curriculum vitae and job applications, etc.

Translation II German-Turkish-German: During this course students are instructed so as to gain the sense and ability of translation (Übersetzungskompetenz), and be capable of using both languages in textual communication, making use of texts such as letters, reports, documents, manuals, contracts, etc.

Structure:
The subjects held are:
1. classification of words of German language;
2. analysis of words on the lexical level;
3. morphologic analysis of words;
4. the functions of types of words in the sentence level;
5. classification of sentences according to their complexity.

History and Geography of Germany: New German literature since the late 19. th century is studied. The subjects are: Naturalism; literature at the turn of the century, Expressionism, Literature of the 20s, Literature of the Exile (Exilliteratur), Literature of Federal Germany and East Germany. The sourcebook is: "B. Oberle; Deutsche Literatur in Epochen, München, 4. Bs. 1989."
Grammar III: Application of three major modern grammar theories on sentences. These theories are:
1. IC-Grammar: (Konstituentengrammatik);
2. Generative-Transformational Grammar;
3. Valensian Grammar (a way of analysing of German verbs).

Writing III: The content of this course covers summary and cover writing, textual description, book reviews and critics (Rezension), precis and excerpt writing.

History of German Literature I: The literary subjects including Enlightenment Age, "Sturm und Drang", Classics, etc. are studied in reference to their social, historical and aesthetic circumstances.

Selections from German Literature: The main subject in the first semester is bourgeois tragedy (bürgerliche Trauerspiel). First the cultural, social and political background of the Enlightenment Age and the 18th. century is summarized and then, in this context, "Emilia Galotti" (G.E. Lessing), "Kabale und Liebe" (Schiller) and "Die Räuber" (Schiller) are studied to exemplify and emphasize the cultural aspect of the bourgeois tragedy.

Linguistics: This course helps students understand the methods and techniques of synchronic linguistics. The topics studied in this course are: The aim and duty of linguistics, language as a means of communication, structuralism of Saussure, phonetics, phonology, morphology, syntax, and thoughts on sociolinguistics.

Comparative Grammar: The course starts with a short historical account of comparative studies done by Romans, Arabs etc. After studying grammar, students start to study new theories in linguistics. Students study texts both in Turkish and German comparatively.

Translation G-T-G: In this course types of texts are studied according to the views of Katharina Reiss. These include, operative language (language of advertising), informative texts, expressionist texts. Students compare the International terminology in Turkish and German. Translations of business correspondence are done.

Teaching Methodology: In this course students study the new methods and techniques of teaching German as a foreign language. They concurstrate on audio-lingual method of teaching.

History of German Literature: Romanticism and its philosophy –romantic poetry and prose (Novalis, Schlegel, Eichendorff) is explained and discussed in the first semester. The second part of the 19th century (realism and naturalism) is discussed in the second semester.
Contemporary German Literature: This course helps students gain reading habits. The texts used in this course are taken from the books of travels in order to improve the understanding toward foreign cultures.

The History of German Language: In this course students study; 1) The content of linguistic signs, 2) the terms diachronic, syncronic, 3) the new methods in diachronic studies, 4) Indo-European German, 5) The history of German Language.

Semantics: Students begin this course studying the history of semantics and go on studying word sense, clause sense, text sense. Then, they practice the methods they learnt on texts.

Translation G-TG: In this course, students study the terminology of translation science. They discuss the problems of translation, and they translate literary texts from German to Turkish and from Turkish to German.

Teaching Methodology: In this course, students study the communicative method of teaching German using situations, dialogues, and phrases.

English: In this course, students learn English as a second foreign language. The course is for both beginners and intermediate levels.
DEPARTMENT OF MUSIC EDUCATION

Head of Department : Prof. Dr. Edip GÜNAY
Professors : Yücel ELMAS, Yıldız ELMAS, Nihas ŞENEL
Associate Professors : İlnur OKATAN, Hille DİCLE, Cemalettin GÖBELEZ, İlnur TONGER
Assistant Professors : Zekeriyâ BAŞARSLAN, A. Seçim PAK
Instructors : Mehmet GEZER

Language of Instruction: Turkish

The Music Education Department offers a four-year study at the undergraduate level, aiming at training music teachers for high schools. The Department comprises three major fields of study; teaching to play an instrument, vocal education, and concepts of music. The classes are held individually or in groups, depending on the nature of the subjects.

COURSE DESCRIPTIONS

Teaching How to Play an Instrument: The students take one of the bow-instruments (violin, viola, violoncello) or guitar, etc.

Piano at the Basic Level: The students are given a program at the maximum level that they can handle, according to their present level at the piano.

Solo Singing: The students are given the necessary technique that enables them to use their voices most comfortably and efficiently. The students also add to their repertoires.

Musical Hearing, Reading, and Writing: The students exercise modal and tonal solfege and dictation from various sources.

Choir: Choir Training and Conducting (5th, 6th, 7th, and 8th Terms) Various samples from the Turkish and the universal choir literatures are taught within a wide range of repertoire. Choir conducting exercises are also applied in the 3rd and the 4th year classes to prepare the students for their teaching career.

Flute and its Teaching Methods: The students exercise playing the flute at a sufficient level, necessary to teach it at schools. A repertoire consisting of polyphonic Turkish and international music is introduced to the students.
Methods and Technique of Scientific Research: What is science and research? How can a "research" be made? How can the problems be solved? Which methods can be used? Which techniques can be used?

Main Field of Study and Methods of Teaching: The students acquire a wider repertoire and a higher level in one of the selected subjects like piano, bow-instruments, guitar, solo singing, etc.

Secondary Field of Study and Methods of Teaching: An instrument, except the one chosen as the main filed of study, is picked by the students as a subsidiary field of study. The course aims at enabling the students to use this subsidiary instrument in teaching.

Harmony: In order to explore and apply polyphonic music, the students work on vertical, horizontal, and Turkish music polyphonization exercises.

Forms and Types of Music: Types of vocal and instrumental music are taught by scrutinizing small, large, polyphonic, and complex forms, in addition to the introduction of the types of Turkish music.

Turkish Folk Music and Bağlama: Turkish folk music and bağlama are taught at a certain level in addition to the introduction of a wide repertoire in this field.

History of Music: Various periods and schools in the history of music are examined from the point of view of their characteristics and composers. History of Turkish music is also scrutinized.

Orchestra/Piano Accompaniment: The students who have piano or solo singing as their main field of study, take piano accompaniment; the ones who have bow-instruments or guitar, take orchestra.

Playing in a Group: The students join the groups to play one of the instruments like flute, oref instruments, chamber music, bağlama, etc.

Traditional Turkish Ancient Music: The history, structure and types of Turkish ancient music are taught, taking into consideration, especially the high school curriculums and by giving samples from certain modes.

Methods of Teaching Music: The curriculums and the books used at the schools where the students are likely to teach, are examined and various class plans are made and applied to prepare them for their career in teaching.

Application of Music Teaching Methods: The information acquired in the course titled "Methods of Teaching Music" is applied at the high schools.

Structure and Maintenance of Music Instruments: The repairing and maintenance of various instruments, in addition to maintenance, tuning, and basic repairing methods of the piano are taught.
# COURSE OUTLINE

## Junior Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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</thead>
<tbody>
<tr>
<td>Teaching How to Play an Instrument I</td>
<td>Teaching How to Play an Instrument II</td>
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<tr>
<td>Piano at the Basic Level I</td>
<td>Piano at the Basic Level II</td>
</tr>
<tr>
<td>Solo Singing I</td>
<td>Solo Singing II</td>
</tr>
<tr>
<td>Musical Hearing, Reading and</td>
<td>Musical Hearing, Reading and</td>
</tr>
<tr>
<td>Writing I</td>
<td>Writing II</td>
</tr>
<tr>
<td>Choir I</td>
<td>Choir II</td>
</tr>
<tr>
<td>Atatürk Principles I</td>
<td>Atatürk Principles II</td>
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## Sophomore Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>Solo Singing III</td>
<td>Solo Singing IV</td>
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<tr>
<td>Musical Hearing, Reading and</td>
<td>Musical Hearing, Reading and</td>
</tr>
<tr>
<td>Writing III</td>
<td>Writing IV</td>
</tr>
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<td>Main Field of Study II</td>
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<tr>
<td>Secondary Field of Study I</td>
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</tr>
<tr>
<td>Harmony I</td>
<td>Harmony II</td>
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<tr>
<td>Forms and Types of Music I</td>
<td>Forms and Types of Music II</td>
</tr>
<tr>
<td>Turkish Folk Music, Bağlama I</td>
<td>Turkish Folk Music, Bağlama II</td>
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## Junior Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>Musical Hearing, Reading and</td>
<td>Musical Hearing, Reading and</td>
</tr>
<tr>
<td>Writing V</td>
<td>Writing VI</td>
</tr>
<tr>
<td>Main Field of Study III</td>
<td>Main Field of Study IV</td>
</tr>
<tr>
<td>Harmony III</td>
<td>Harmony IV</td>
</tr>
<tr>
<td>Choir Training and Conducting I</td>
<td>Choir Training and Conducting II</td>
</tr>
<tr>
<td>History of Music I</td>
<td>History of Music II</td>
</tr>
<tr>
<td>Playing in a Group I</td>
<td>Playing in a Group II</td>
</tr>
<tr>
<td>Orchestra/Piano Accompaniment I</td>
<td>Orchestra/Accompaniment II</td>
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## Senior Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>Methods and Techniques of</td>
<td>Methods and techniques of</td>
</tr>
<tr>
<td>Scientific Research III</td>
<td>Scientific Research IV</td>
</tr>
<tr>
<td>Main Field of Study IV</td>
<td>Main Field of Study V</td>
</tr>
<tr>
<td>Harmony III</td>
<td>Harmony IV</td>
</tr>
<tr>
<td>Choir Training and Conducting III</td>
<td>Choir Training and Conducting IV</td>
</tr>
<tr>
<td>Orchestra/Piano Accompaniment III</td>
<td>Orchestra/Piano Accompaniment IV</td>
</tr>
<tr>
<td>Traditional Turkish Ancient Music I</td>
<td>Traditional Turkish Ancient Music II</td>
</tr>
<tr>
<td>Methods of Teaching Music I</td>
<td>Methods of Teaching Music II</td>
</tr>
<tr>
<td>Music Instruments</td>
<td>Music Instruments</td>
</tr>
</tbody>
</table>
DEPARTMENT OF SCIENCE EDUCATION

Head of Department : Prof. Dr. M. Ali ÇORLU
Professors : Ahmet ATAKAN, Selami İşik AYTAŞ, Ali ÇİRPICI, Sema Sevinç ERGEZEN, Nursel GÜVEN, Esat HAMZAOĞLU, Asuman İLGAZ, Turan İLGAZ, Barış KENDİRLİ, Mucella ÖZÇELİKAY, Engin ÖZHATAY, Hikmet SAVCI, Musa ŞAHİN, Bilgin TÖZÜN, Nermin UYSAL, Meral ÜNAL, Yavuz YORULMAZ

Associate Professors : Şermin ATACIK, Halim AYRANCI, Servet BUYURAN, İsa EŞME, Mümine KOCAYUSUFPAŞAOĞLU, Sevil ÜNAL, Salih YAŞLAK

Assistant Professors : Hale BAYRAM, Nigar ERUZUN, Zeynep GÜREL, Melek HAMZAOĞLU, Hale OKUTMAN, Ali Rıza ÖZKAYA

Instructors : Meral BİRİR, Mahmut DOĞRU, Durmuş HOCAOĞLU, Yusuf KARAKUŞ, Füsun NURCAN, Ümit SALAN, Tuncay TANYOLU, Songül USTA, Dursun ÜSTÜNDAĞ

Language of Instruction: Turkish and English

The Department of Science Education offers Bachelor of Science Education degrees, BSc(Ed), in Biology, Chemistry, Mathematics and Physics education. Graduates are fully qualified to teach in secondary state and private schools as Biology, Chemistry, Mathematics and Physics teachers.

Each of the four courses offered by the Department is run in two parallel streams with Turkish as the teaching language in one stream and English in the other.

The subject compositions of the courses are around 70% Science and 30% Educational and Social Sciences and Languages.

Practical experience in class-room teaching is obtained through school practices in the final year of the studies.
# Biology Education

## Undergraduate Program

### Freshman Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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</thead>
<tbody>
<tr>
<td>FBI 101 General Biology I</td>
<td>FBI 201 General Biology II</td>
</tr>
<tr>
<td>FBI 102 General Biology Laboratory I</td>
<td>FBI 202 General Biology Laboratory II</td>
</tr>
<tr>
<td>FBI 103 General Mathematics I</td>
<td>FBI 203 General Mathematics II</td>
</tr>
<tr>
<td>FBI 104 Basic Chemistry I</td>
<td>FBI 204 Basic Chemistry II</td>
</tr>
<tr>
<td>FBI 105 Basic Chemistry Laboratory I</td>
<td>FBI 205 Basic Chemistry Laboratory II</td>
</tr>
<tr>
<td>FBI 106 General Physics I</td>
<td>FBI 206 General Physics II</td>
</tr>
<tr>
<td>FBI 107 General Physics Laboratory I</td>
<td>FBI 207 General Physics Laboratory II</td>
</tr>
<tr>
<td>FBI 121 Introduction to Education</td>
<td>FBI 221 Educational Sociology</td>
</tr>
<tr>
<td>FBI 131 Atatürk's Principles</td>
<td>FBI 231 Atatürk's Principles</td>
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<tr>
<td>FBI 141 Turkish I</td>
<td>FBI 241 Turkish II</td>
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### Sophomore Year

<table>
<thead>
<tr>
<th>First Semester</th>
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<tbody>
<tr>
<td>FBI 301 Invertebrate Animal Systematics</td>
<td>FBI 401 Vertebrate Animal Systematics</td>
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<tr>
<td>FBI 302 Invertebrate Animal Systematics Laboratory</td>
<td>FBI 402 Vertebrate Animal Systematics Laboratory</td>
</tr>
<tr>
<td>FBI 303 Cytology</td>
<td>FBI 403 Animal Histology</td>
</tr>
<tr>
<td>FBI 304 Cytology Laboratory</td>
<td>FBI 404 Animal Histology Laboratory</td>
</tr>
<tr>
<td>FBI 305 Practical Techniques in. Biology</td>
<td>FBI 405 Statistics</td>
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<tr>
<td>FBI 306 Organic Chemistry I</td>
<td>FBI 406 Organic Chemistry II</td>
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<tr>
<td>FBI 321 Developmental Psychology</td>
<td>FBI 407 Morphology and Anatomy of Vascular Plants</td>
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<tr>
<td>FBI 331 Atatürk's Principles</td>
<td>FBI 408 Morphology &amp; Anatomy of Vascular Plants Laboratory</td>
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<td></td>
<td>FBI 421 Psychology of Learning</td>
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<td>FBI 431 Atatürk Principles</td>
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## Junior Year

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>FBI 501 Genetics I</td>
<td>FBI 601 Genetics II</td>
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<tr>
<td>FBI 502 Animal Physiology</td>
<td>FBI 602 Vascular Plant Systematics</td>
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<tr>
<td>FBI 503 Animal Physiology Laboratory</td>
<td>FBI 603 Vascular Plant Systematics Laboratory</td>
</tr>
<tr>
<td>FBI 504 Cryptogamic Botany</td>
<td>FBI 604 Plant Embryology</td>
</tr>
<tr>
<td>FBI 505 Cryptogamic Botany Laboratory</td>
<td>FBI 605 Plant Embryology Laboratory</td>
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<tr>
<td>FBI 506 Biochemistry I</td>
<td>FBI 606 Biochemistry II</td>
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<tr>
<td>FBI 507 Computer Programming I</td>
<td>FBI 607 Computer Programming II</td>
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<td>FBI 508 Computer Practice I</td>
<td>FBI 608 Computer Practice II</td>
</tr>
<tr>
<td>FBI 521 Measurement &amp; Evaluation</td>
<td>FBI 621 Guidance &amp; Counselling</td>
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## Senior Year

<table>
<thead>
<tr>
<th>First Semester</th>
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<tbody>
<tr>
<td>FBI 701 Animal Embryology</td>
<td>FBI 801 Plant Physiology</td>
</tr>
<tr>
<td>FBI 702 Animal Embryology Laboratory</td>
<td>FBI 802 Plant Physiology Laboratory</td>
</tr>
<tr>
<td>FBI 703 Plant Geography</td>
<td>FBI 803 Ecology and Environmental Health</td>
</tr>
<tr>
<td>FBI 704 Molecular Biology</td>
<td>FBI 804 Human Anatomy and Morphology</td>
</tr>
<tr>
<td>FBI 705 Microbiology</td>
<td>FBI 805 Human Physiology</td>
</tr>
<tr>
<td>FBI 706 Microbiology Laboratory</td>
<td>FBI 819 Teaching Practice</td>
</tr>
<tr>
<td>FBI 715 Teaching of Biology</td>
<td>FBI 821 Educational Administration</td>
</tr>
<tr>
<td>FBI 721 Principles &amp; Methods of Teaching</td>
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</tr>
</tbody>
</table>

## COURSE DESCRIPTIONS

**FBI 101 General Biology I:** Biology of cells. Chemical basis of life. Biology of plants and animals.

**FBI 102 General Biology Laboratory I:** Experimental work related to plants and animals.

**FBI 103 General Mathematics I:** Sets. Real numbers. Relations, functions. Limits and continuity. Derivatives and applications.


**FBI 105 Basic Chemistry Laboratory I:** Experimental work related to chemical principles listed above.

FBI 107 **General Physics Laboratory I**: Experimental work related to physical principles listed above.

FBI 201 **General Biology II**: Reproduction and development in animals and plants. Genetics. Evolution.

FBI 202 **General Biology Laboratory II**: Experimental work related to reproduction and development of animals and plants.


FBI 204 **Basic Chemistry II**: Chemical kinetics. Chemical equilibrium in nonprecipitation, precipitating and acid/base systems. Fundamentals of thermodynamics, electrochemistry and nuclear chemistry.

FBI 205 **Basic Chemistry Laboratory II**: Experimental work related to chemical principles listed above.


FBI 207 **General Physics Laboratory II**: Experimental work related to physical principles listed above.


FBI 302 **Invertebrate Animal Systematics Laboratory**: Microscopic and macroscopic observations of invertebrate organisms.


FBI 304 **Cytology Laboratory**: Microscopic observations related to plant and animal cell structure.

FBI 305 **Practical Techniques in Biology**: Techniques for preparing plant and animal slides.


FBI 402 Vertebrate Animal Systematics Laboratory: Macroscopic observation of various vertebrate animals.

FBI 403 Animal Histology: Microscopic structure of vertebrate tissues: types of cells and relationship between cell types and function of the tissue.

FBI 404 Animal Histology Laboratory: Study of tissue micrographs and slides of various animal organs.


FBI 408 Morphology and Anatomy of Vascular Plants Laboratory: Observation of microscopic structure of vascular plant tissues.


FBI 503 Animal Physiology Laboratory: Practical work to observe and study of physiological progresses in animals.


FBI 505 Cryptogamic Botany Laboratory: Macroscopic and microscopic observations of flowerless plant samples.

FBI 507 Computer Programming I: Biology Education majors are introduced to the principles of computer operations and programming using the Basic language in preparation for Computer Aided Administration in secondary education.

FBI 508 Computer Practice I: Hands-on experience is gained in the use of computer hardware and filing systems with Basic as the programming language.


FBI 603 Vascular Plant Systematics Laboratory: Macroscopic and microscopic observations of flowering plant samples. Floral formulation and diagramming.


FBI 605 Plant Embryology Laboratory: Microscopic observations related to embryological processes in plants.


FBI 608 Computer Practice II: Hands-on experience is gained in running Fortran programs.


FBI 702 Animal Embryology Laboratory: Microscopic observations of all phases of sea urchin, frog, chick and mammalian embryogenesis.


FBI 704 Molecular Biology: Mendelian view of the world. Chemistry of cells. Weak chemical interactions. Coupled reactions. Group transfers. Arrangement of

**FBI 705 Microbiology:** Evaluation of microbes and microbiology. Bacterial physiology. Bacterial and molecular genetics. Immunology. Bacterial and mycotic infections and virology.

**FBI 706 Microbiology Laboratory:** Experimental work related to microorganisms.


**FBI 802 Plant Physiology Laboratory:** Experiments related to physiological processes in plants.


**FBI 804 Human Anatomy and Morphology:** Gross and microanatomy of the human.


**FBI 819 Teaching Practice:** Four-week teaching practice in secondary schools under the supervision of a faculty member or the school biology teacher.

**COURSE DESCRIPTIONS**

The details of the Biology Education, Chemistry Education, Mathematics Education and Physics Education programs are shown separately in the following pages. Details of the core subjects common in each program are given below.
(Education)
(FB1/FK1/FM1/FF1)121 Introduction to Education: Education as a field of study. Education as a system. The Turkish educational system.

(FB1/FK1/FM1/FF1)221 Educational Sociology: The relationship between culture, society and education. Education and schooling as means of socialization.

(FB1/FK1/FM1/FF1)321 Developmental Psychology: The various types of developments in humans and their behavioural consequences. Adolescent psychology as it relates to teaching in secondary schools.


(FB1/FK1/FM1/FF1)821 Educational Administration: Philosophical and theoretical foundations of educational administration. Processes and organization in educational administration. The structure and organization of educational administration in Turkey.

(Social)
(FB1/FK1/FM1/FF1)131/231/331/431 Atatürk's Principles and the History of the Turkish Revolution: This four-semester subject covers the period from the latest periods of the Ottoman Empire to present, including the 1. World War, the stages in the Turkish Revolution (1919-1923) and the foundation of the Turkish Republic. Atatürk's principles, on which the Turkish State is founded, are studied in detail.

(Languages)
(FB1/FK1/FM1/FF1)141 Turkish I: Contemporary Turkish language; its global significance and use. Phonetic and linguistic characteristics.

(FB1/FK1/FM1/FF1)241 Turkish II: Structure and grammar of the Turkish language. Sentence structure. Turkish literature. Composition writing.

(FB1/FK1/FM1/FF1)151 English I: Phonetic characteristics of English. Pronunciation. Translation from English to Turkish.
English II: Translation from English to Turkish and from Turkish to English.

CHEMISTRY EDUCATION
UNDERGRADUATE PROGRAM

Freshman Year

First Semester
FKI 101 General Chemistry I
FKI 102 General Chemistry Laboratory I
FKI 103 General Mathematics I
FKI 104 General Physics I
FKI 105 General Physics Laboratory I
FKI 121 Introduction to Education
FKI 131 Atatürk Principles
FKI 141 Turkish I
FKI 151 English I

Second Semester
FKI 201 General Chemistry II
FKI 202 General Chemistry Laboratory II
FKI 203 General Mathematics II
FKI 104 General Physics II
FKI 205 General Physics Laboratory II
FKI 221 Educational Sociology
FKI 231 Atatürk Principles
FKI 241 Turkish II
FKI 251 English II

Sophomore Year

First Semester
FKI 301 Analytical Chemistry I
FKI 302 Analytical Chemistry Laboratory I
FKI 303 Introduction to Organic Chemistry I
FKI 304 Computer Programming I
FKI 305 Computer Practice I
FKI 306 Inorganic Chemistry I
FKI 321 Developmental Psychology
FKI 331 Atatürk Principles

Second Semester
FKI 401 Analytical Chemistry II
FKI 402 Analytical Chemistry Laboratory II
FKI 403 Introduction to Organic Chemistry II
FKI 404 Computer Programming II
FKI 405 Computer Practice II
FKI 406 Inorganic Chemistry II
FKI 407 Inorganic Chemistry Laboratory
FKI 421 Psychology of Learning
FKI 431 Atatürk Principles

Junior Year

First Semester
FKI 501 Organic Chemistry I
FKI 502 Organic Chemistry I
FKI 503 Physical Chemistry I
FKI 504 Physical Laboratory I
FKI 505 Chemical Thermodynamics
FKI 506 Measurement & Evaluation

Second Semester
FKI 601 Organic Chemistry II
FKI 602 Organic Chemistry Laboratory II
FKI 603 Physical Chemistry II
FKI 604 Physical Chemistry Laboratory II
FKI 605 Statistics
FKI 606 Guidance & Counselling
## Senior Year

**First Semester**

- FKI 701 Biochemistry I
- FKI 702 Chemistry & Environment I
- FKI 703 Quantum Chemistry
- FKI 704 Electrochemistry
- FKI 705 Electrochemistry Laboratory
- FKI 715 Teaching of Chemistry
- FKI 721 Principles & Methods of Teaching

**Second Semester**

- FKI 801 Biochemistry II
- FKI 802 Chemistry & Environment II
- FKI 803 Instrumental Methods of Analysis Laboratory
- FKI 804 Instrumental Methods of Analysis
- FKI 817 Experimental Chemistry
- FKI 819 Teaching Practice
- FKI 821 Educational Administration

### COURSE DESCRIPTIONS


**FKI 102 General Chemistry Laboratory I:** Experimental work related to chemical principles listed above.

**FKI 103 General Mathematics I:** Sets. Real numbers. Relations, functions. Limits and continuity. Derivatives and applications.


**FKI 105 General Physics Laboratory I:** Experimental work related to physical principles listed above.

**FKI 201 General Chemistry II:** Chemical kinetics. Chemical equilibrium in non-precipitation, precipitating and acid/base systems. Fundamentals of thermodynamics, electrochemistry and nuclear chemistry.

**FKI 202 General Chemistry Laboratory II:** Experimental work related to chemical principles listed above.


FK1 205 General Physics Laboratory II: Experimental work related to physical principles listed above.


FK1 302 Analytical Chemistry Laboratory I: Experimental work related to the various analytical methods listed above.


FK1 304 Computer Programming I: Chemistry Education majors are introduced to the principles of computer operations and programming using the Basic language in preparation for Computer Aided Chemistry Teaching and Computer Aided Administration.

FK1 305 Computer Practice I: Hands-on experience is gained in the use of computer hardware, and filing systems with Basic as the programming language.


FK1 401 Analytical Chemistry II: Theories of neutralization titrations. Indicators and buffer solutions. Titration of weak acid and base solutions. Polyfunctional acids and bases and their titrations. pH calculations.

FK1 402 Analytical Chemistry Laboratory II: Experimental work related to the analytical methods listed above.


FK1 405 Computer Practice II: Hands-on experience is gained in running Fortran programs.

planar complexes. Associative and dissociative substitution reactions. Lanthanides and actinides.

**FK1 407 Inorganic Chemistry Laboratory:** Experimental work related to the principles introduced in Inorganic Chemistry I & II.


**FK1 502 Organic Chemistry Laboratory I:** Experimental work related to the various topics of organic chemistry listed above.

**FK1 503 Physical Chemistry I:** Properties of liquids and gases. Liquefaction. Reaction kinematics. Surface chemistry.

**FK1 504 Physical Chemistry Laboratory I:** Experimental work related to the physical chemistry topics listed above.


**FK1 602 Organic Chemistry Laboratory II:** Experimental work related to the organic chemistry topics listed above.

**FK1 603 Physical Chemistry II:** Solid state. Dilute solutions. Phase equilibria. Nuclear chemistry. Photochemistry.

**FK1 604 Physical Chemistry Laboratory II:** Experimental work related to the physical chemistry topics listed above.

**FK1 605 Statistics:** Descriptive statistics for samples. Probability and probability distributions. Hypothesis testing. Linear regression.


**FK1 702 Chemistry and Environment I:** Introduction to the industrial applications of chemistry as they appear in our daily lives with major emphasis on energy; sources ad utilization.

**FK1 703 Quantum chemistry:** Hamiltonian electromagnetic theory. Foundations of quantum theory. Correspondance principle. Physical interpretation of the wave

FK1 105 General Physics Laboratory I: Experimental work related to physical principles listed above.

FK1 201 General Chemistry II: Chemical kinetics. Chemical equilibrium in non-precipitation, precipitating and acid/base systems. Fundamentals of thermodynamics, electrochemistry and nuclear chemistry.

FK1 202 General Chemistry Laboratory II: Experimental work related to chemical principles listed above.


FK1 205 General Physics Laboratory II: Experimental work related to physical principles listed above


FK1 302 Analytical Chemistry Laboratory I: Experimental work related to the various analytical methods listed above.


FK1 304 Computer Programming I: Chemistry Education majors are introduced to the principles of computer operations and programming using the Basic language in preparation for Computer Aided Chemistry Teaching and Computer Aided Administration.

FK1 305 Computer Practice I: Hands-on experience is gained in the use of computer hardware, and filing systems with Basic as the programming language.

FK1 401 Analytical Chemistry II: Theories of neutralization titrations. Indicators and buffer solutions. Titration of weak acid and base solutions. Polyfunctional acids and bases and their titrations. pH calculations.

FK1 402 Analytical Chemistry Laboratory II: Experimental work related to the analytical methods listed above.


FK1 405 Computer Practice II: Hands-on experience is gained in running Fortran programs.


FK1 407 Inorganic Chemistry Laboratory: Experimental work related to the principles introduced in Inorganic Chemistry I & II.


FK1 502 Organic Chemistry Laboratory I: Experimental work related to the various topics of organic chemistry listed above.


FK1 504 Physical Chemistry Laboratory I: Experimental work related to the physical chemistry topics listed above.


FK1 602 Organic Chemistry Laboratory II: Experimental work related to the organic chemistry topics listed above.


FK1 604 Physical Chemistry Laboratory II: Experimental work related to the physical chemistry topics listed above.

FK1 605 Statistics Descriptive statistics for samples: Probability and probability distributions. Hypothesis testing. Linear regression.


FK1 702 Chemistry and Environment I: Introduction to the industrial applications of chemistry as they appear in our daily lives with major emphasis on energy; sources ad utilization.


FK1 705 Electrochemistry Laboratory: Experimental work related to the electrochemical topics listed above.


**FK1 804 Instrumental Methods of Analysis Laboratory:** The use of equipment to apply the instrumental methods listed above.

**FK1 817 Experimental Chemistry:** mental procedures and notes. Planning and scheduling.

**FK1 819 Teaching Practice:** Four-week teaching practice in secondary schools under the supervision of a faculty member and the school chemistry teacher.

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### MATHEMATICS EDUCATION

#### UNDERGRADUATE PROGRAM

**Freshman Year**

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>FM1 101 Calculus I</td>
<td>FM1 201 Calculus II</td>
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<tr>
<td>FM1 102 Linear Algebra I</td>
<td>FM1 202 Linear Algebra II</td>
</tr>
<tr>
<td>FM1 103 Introduction to Foundation of Mathematics I</td>
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<tr>
<td>FM1 104 Physics I</td>
<td>FM1 203 Introduction to Foundation of Mathematics II</td>
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<tr>
<td>FM1 105 Physics Laboratory I</td>
<td>FM1 204 Physics II</td>
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<tr>
<td>FM1 121 Introduction to Education</td>
<td>FM1 205 Physics Laboratory II</td>
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<td>FM1 131 Atatürk's Principles</td>
<td>FM1 221 Educational Sociology</td>
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<td>FM1 231 Atatürk's Principles</td>
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<td>FM1 241 Turkish II</td>
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**Sophomore Year**

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<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>FM1 301 Calculus III</td>
<td>FM1 401 Calculus IV</td>
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<tr>
<td>FM1 302 Algebra I</td>
<td>FM1 402 Algebra II</td>
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<td>FM1 303 Analytical Geometry I</td>
<td>FM1 403 Analytical Geometry II</td>
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<tr>
<td>FM1 304 Physics III</td>
<td>FM1 404 Physics IV</td>
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<td>FM1 305 Physics Laboratory III</td>
<td>FM1 405 Physics Laboratory IV</td>
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<td>FM1 321 Developmental Psychology</td>
<td>FM1 421 Psychology of Learning</td>
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<td>FM1 331 Atatürk's Principles</td>
<td>FM1 431 Atatürk Principles</td>
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</table>
Junior Year

First Semester

FM1 501 Differential Geometry I
FM1 502 Differential Equations I
FM1 503 Elective Mathematics I
FM1 504 Probability Theory
FM1 505 Computer Programming I
FM1 521 Measurements & Evaluation

Second Semester

FM1 601 Differential Geometry II
FM1 602 Differential Equations II
FM1 603 Elective Mathematics II
FM1 604 Statistics
FM1 605 Computer Programming II
FM1 621 Guidance & Counselling

Senior Year

First Semester

FM1 701 Topology I
FM1 702 Complex Analysis I
FM1 703 Elective Mathematics III
FM1 715 Teaching of Mathematics
FM1 721 Principles & Methods of Teaching

Second Semester

FM1 801 Topology II
FM1 802 Complex Analysis II
FM1 803 Elective Mathematics IV
FM1 819 Teaching Practice
FM1 821 Educational Administration

COURSE DESCRIPTIONS


FM1 103 Introduction to Foundation of Mathematics I: Logic: Propositions, truth tables, quantifiers, sets. Relations and Functions. Construction of the natural numbers, the integers, the rational numbers, the complex numbers and their properties.


FM1 105 Physics Laboratory I: Methods of measurements of length and density. Determination of errors. Experiments related to kinematics and dynamics, conservation of energy, conservation of momentum and equilibrium of rigid bodies.


FM1 204 Physics II: Gravitation Fluid mechanics. Waves in elastic media. Sound waves.


FM1 205 Physics Laboratory II: Experiments on properties of fluids: viscosity and surface tension. Determination of specific heat, latent heat, melting point, speed of sound in air.


FM1 303 Analytical Geometry I: Vectors in the plane and in the space, dot and cross products. Straight lines and planes. Groups of transformations and various geometries. The general and special theory of conics ellipse, hyperbola, parabola.

FM1 304 Physics III: Electricity, magnetism, optics and modern physics.


FM1 403 Analytical Geometry II: Quadric surfaces. Elements of projective geometry: axioms, homogenous coordinates, duality, projectivity, pole and polar line. Theorem of Desargue, Pascal and Branchion.


FM1 505 Computer Programming I: Mathematics Education majors are introduced to the principles of computer operations and programming using the Basic language.


FM1 605 Computer Programming II: Computer programming of numerical operations with C as the programming language.


FM1 702 Complex Analysis I: Complex numbers. Limits and continuity of complex functions. Derivative: techniques of computing, the Cauchy-Riemann conditions, geometric meaning. Elementary functions.


**FM1 802 Complex Analysis II:** Conformal mapping, bilinear transformations, integral calculus: the Cauchy theorem, Cauchy formula, local properties of analytic functions, the maximum principle. Sequences and series of complex numbers. Taylor and Laurent series, residue theorem. Applications.

**FM1 819 Teaching Practice:** Four-week teaching practice in secondary schools under the supervision of a faculty member and the school mathematics teacher.

**FM1 (503, 603, 703, 803) Elective Mathematics:**
The current subjects are:
Numerical Analysis I&II,
Introduction to Riemannian Geometry I&II.

**PHYSICS EDUCATION**

**UNDERGRADUATE PROGRAM**

**Freshman Year**

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>FFI 101 Physics I</td>
<td>FFI 201 Physics II</td>
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<tr>
<td>FFI 102 Physics Laboratory I</td>
<td>FFI 202 Physics Laboratory II</td>
</tr>
<tr>
<td>FFI 103 General Mathematics I</td>
<td>FFI 203 General Mathematics II</td>
</tr>
<tr>
<td>FFI 104 Basic Chemistry I</td>
<td>FFI 204 Basic Chemistry II</td>
</tr>
<tr>
<td>FFI 105 Computer Programming I</td>
<td>FFI 205 Computer Programming II</td>
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<tr>
<td>FFI 121 Introduction to Education</td>
<td>FFI 221 Educational Sociology</td>
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<td>FFI 131 Atatürk Principles</td>
<td>FFI 231 Atatürk Principles</td>
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**Sophomore Year**

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<tbody>
<tr>
<td>FFI 301 Physics III</td>
<td>FFI 401 Physics IV</td>
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<tr>
<td>FFI 302 Physics Laboratory III</td>
<td>FFI 402 Physics Laboratory IV</td>
</tr>
<tr>
<td>FFI 303 Dynamics</td>
<td>FFI 403 Thermodynamics</td>
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<tr>
<td>FFI 304 Linear and Vector Algebra</td>
<td>FFI 404 Differential Equations</td>
</tr>
<tr>
<td>FFI 305 Computer Programming III</td>
<td>FFI 405 Computer Programming IV</td>
</tr>
<tr>
<td>FFI 306 Basic Chemistry Laboratory I</td>
<td>FFI 406 Basic Chemistry Laboratory II</td>
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<tr>
<td>FFI 316 English for Physics I</td>
<td>FFI 416 English for Physics II</td>
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<tr>
<td>FFI 321 Developmental Psychology</td>
<td>FFI 421 Psychology of Learning</td>
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<td>FFI 331 Atatürk Principles</td>
<td>FFI 431 Atatürk Principles</td>
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### Junior Year

<table>
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<tbody>
<tr>
<td>FFI 501 Electromagnetic Theory</td>
<td>FFI 601 Quantum Mechanics</td>
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<tr>
<td>FFI 502 Thermal Physics</td>
<td>FFI 602 Optics</td>
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<tr>
<td>FFI 503 Modern Physics</td>
<td>FFI 603 Electronics</td>
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<tr>
<td>FFI 504 Mathematics for Physics</td>
<td>FFI 604 Electronics Laboratory</td>
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<tr>
<td>FFI 505 Computer Programming V</td>
<td>FFI 605 Computer Programming VI</td>
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<tr>
<td>FFI 516 English for Physics III</td>
<td>FFI 616 English for Physics IV</td>
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<td>FFI 521 Measurement &amp; Evaluation</td>
<td>FFI 621 Guidance &amp; Counselling</td>
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### Senior Year

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<thead>
<tr>
<th>First Semester</th>
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<tbody>
<tr>
<td>FFI 701 Atomic Physics</td>
<td>FFI 801 Nuclear Physics</td>
</tr>
<tr>
<td>FFI 702 Elective Science I</td>
<td>FFI 802 Elective Science II</td>
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<tr>
<td>FFI 703 Digital Electronics</td>
<td>FFI 803 Elective Science III</td>
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<td>FFI 715 Teaching of Physics</td>
<td>FFI 819 Teaching Practice</td>
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<td>FFI 831 Educational Administration</td>
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<tr>
<td>FFI 721 Principles &amp; Methods of Teaching</td>
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</tbody>
</table>

### COURSE DESCRIPTIONS


**FFI 102 Physics Laboratory I**: Methods of measurement of length and density. Determination of errors. Experiments related to kinematics and dynamics, conservation of energy, conservation of momentum and equilibrium of rigid bodies.

**FFI 103 General Mathematics I**: Limits. Derivatives and applications. Integration methods and applications: area, volume, arc and length calculations. Exponential functions and logarithm.


**FFI 105 Computer Programming I**: Physics Education majors are introduced to the principles of computer operations and programming using the Basic language. Graphic packages are utilized also.

FFI 202 Physics Laboratory II: Experiments on properties of fluids: viscosity and surface tension. Determination of specific heat, melting point, speed of sound in air.


FFI 204 Basic Chemistry II: Chemical kinetics. Chemical equilibrium in nonprecipitating, precipitating and acid/base systems. Fundamentals of thermodynamics, electrochemistry and nuclear chemistry.

FFI 205 Computer Programming II: Advanced applications of Basic in conjunction with graphical packages.


FFI 305 Computer Programming III: Fundamentals of Fortran are introduced in preparation for extensive applications of the language.

FFI 306 Basic Chemistry Laboratory I: Experimental work related to chemical principles listed in Basic Chemistry I


FFI 404 Differential Equations: Differential equations of first order and elementary applications. Linear differential equations of order n. Linear differential equations with

FFI 405 Computer Programming IV: The various numerical methods, Taylor series, numerical integration, numerical solutions of simultaneous algebraic equations are computer programmed in Fortran.

FFI 406 Basic Chemistry Laboratory II: Experimental work related to chemical principles listed in Basic Chemistry II.

FFI 501 Electromagnetic Theory: FFI: The format and contents of Ottoman records, the documents used in Ottoman Empire and exercises on the calligraphy used in these documents.


FFI 505 Computer Programming V: Computer programming of Physics problems with Basic and Fortran utilizing graphical packages.


FFI 605 Computer Programming VI: Secondary level Physics and Mathematics problems are programmed in Basic/Fortran utilizing graphical packages to obtain 2 or 3 dimensional solutions. Experimental apparatus are linked to computers and computer aided experimentation is realized.
FFI 701 Atomic Physics: Atomic and molecular structure and spectra.


FFI 801 Nuclear Physics: Nuclear structure and reactions. Natural and artificial radioactivity. Liquid drop and shell models of the nucleus. Fission and fusion.

FFI 819 Teaching Practice: Four-week teaching practice in secondary schools under the supervision of a faculty member and the school Physics teacher.

FFI (316, 416, 516, 616) English for Physics: The aim of these sessions is to improve the spoken and written English of the students in science subjects.

FFI(702, 802, 803) Elective Science:

The current subjects are:
Solid State Physics
Astronomy
Health Physics
Computer Aided Physics Education
Computer Aided Physics Experiments
DEPARTMENT OF SOCIAL SCIENCES EDUCATION

Head of Department : Prof. Dr. Coşkun ALPTEKİN
Professors : Yusuf HALAÇOĞLU, Ali Selçuk BİRİCİK,
Selçuk MÜLAYİM
Associate Professors : Özcan MERT
Assistant Professors : Nurten GÜNAL, Ramazan ÖZEY, Gülay Öğün BEZER
Instructors : Ekrem UYKUCU, Ayten KOBAZOĞLU, Ercan SÜEL,
Mustafa BARUT, A. Haluk DURSUN,
M. Hanefi BOSTAN, Vahdettin ENGİN,
Nuran TAŞLIGİL, Özbay GÜNGÖR, Hayriye KÜÇÜK

Language of Instruction : Turkish

The Department of Social Sciences Education offers a 4-year program leading to a B.A. degree both in History and Geography.

The objective of the Department is to train historians and geographers in the professional requirements of the fields. The curriculums are designed to provide the students with a sound and comprehensive understanding of the Turkish history and geography as well as the world.

The graduates of the Department can find jobs as teachers of History or Geography in secondary schools. Students are required to do a one-month field practice in secondary schools in the second semester of their senior year.

DEPARTMENT OF HISTORY

The Department of History acquaints the students with the Turkish History, exposes them to the cultural background of other societies and provides an understanding of the relationship of the historical past to the contemporary world. The program based on four years study leading to the Bachelor’s degree also concentrates on Ottoman Turkish as a subdiscipline. Graduates of this Department find jobs as teachers of History in secondary schools.
# UNDERGRADUATE PROGRAM

## Freshman Year

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<thead>
<tr>
<th>First Semester</th>
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<tr>
<td>Ottoman Paleography I</td>
<td>Ottoman Paleography II</td>
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<tr>
<td>Ancient History</td>
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<td>Pre-Islamic Turkish History</td>
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<td>The History of Byzantium</td>
<td>Western Asian Turkish Branches and States</td>
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<td>General Geography</td>
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## Sophomore Year

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<tr>
<td>History of Islam II</td>
<td>Ottoman History I</td>
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<td>Great Saljuks</td>
<td>Turco-Islam States</td>
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<tr>
<td>History of Early Muslim</td>
<td>History of Anatolian Saljuks</td>
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<td>Turkish States General</td>
<td>Geography II</td>
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## Junior Year

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<tr>
<td>Ottoman History II</td>
<td>Turco-Islamic Art I</td>
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<tr>
<td>Ottoman Institutions I</td>
<td>History of Turkish States in New and Near Ages I</td>
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<td>Eastern European Turkish Tribes</td>
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<td>Anatolian Emirates</td>
<td>Ottoman Diplomatics II</td>
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<td>Geography of Türkiye I</td>
<td>European History in New and Near Ages I</td>
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## Senior Year

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<td>Science in Turks</td>
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<td>History of Turkish States in New and Near Ages II</td>
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<tr>
<td>History and Social Sciences Instruction Methods</td>
<td>Geography of Türkiye II</td>
</tr>
</tbody>
</table>
COURSE DESCRIPTIONS

Ottoman Paleography I: Introductory information about the pronunciation of Ottoman Turkish is given.

Ancient History: Knowledge about the oldest civilizations established in Anatolia, Mesopotamia, and Greece and the Roman Empire is given.

Pre-Islamic Turkish History: The Turkish history before the accpetion of Islam is examined. The states established by Huns and culture, civilization and the political history of Gök Türk and Uighurs are taught.

The History of Byzantium and Western Europe: The culture and civilization, and the political history of Byzantine Empire and Medieval Europe are taught.

General Geography: General information about geography is given.

Ottoman Paleography II: Information about the pronunciation and grammar of Ottoman Turkish is given.

Methodology of History: General knowledge about the science of history and methods used in historical research are taught.

History of Islam I: Emergence of Islam and the era of Muhammed and four Caliphs are taught from the point of view of political and cultural-civilizational history.

Western Asian Turkish Branches and States: Karluks and Turgishes who played a political role in VIII. and IX. centuries in Western Asia are examined.

Ottoman Paleography III: Pronunciation and grammar of Ottoman Turkish is taught.

History of Islam II: Political and civilizational history of Umayyads and Abbasids is taught.

Great Saljuks: Political history of Great Saljuks that ruled in Persia, Transoxiana (Maveşninheir), Khorezm, Irak, Syria, and Anatolia between 1040 and 1157 is taught.

History of Early Muslim Turkish States: Acceptance of Islam by Turks, political and civilizational history of Ghaznevid and Karakhanid States are taught.

Ottoman Paleography IV: Pronunciation and grammar of Ottoman Turkish is taught.

Ottoman History I: Political history of Ottoman Empire from the establishment till 1520 is taught.
Turco-Islam States: Political and civilizational history of Khorezm-shah State established in Western Asia and Mamluk State established in Egypt and Syria are taught.

History of Anatolian Saljuks: Political history of Anatolian Saljuks that ruled independently in Anatolia between 1075 and 1308 following the collapse of the State of Great Saljuks.

General Geography II: General information about geography is given.

Ottoman Diplomastics I: The format and contents of Ottoman records, the documents used in Ottoman Empire and exercises on the calligraphy used in these documents.

Ottoman History II: Political history of Ottoman Empire between 1520 and 1774 is examined.

Ottoman Institutions I: State organization, social, and economical, structure of Ottoman Empire are examined.

Eastern European Turkish Tribes: Political and civilizational history of Turkish states established in Eastern Europe is examined.

Geography of Türkiye I: Geographical structure of Turkiye is examined.

Anatolian Emirates: Political and civilizational history of Emirates established in Anatolia after the collapse of anatolian Saljuk state is taught.

Institutions of Saljukids: State organization, social, economical and cultural structure of the Great Saljuk Empire and Anatolian Saljuk State are examined.

Ottoman Diplomastics II: Diplomatics of archive documents used in Ottoman Empire and knowledge about reading them are given.

Ottoman Institutions II: State organization social, economical and cultural structure of Ottoman Empire are examined.

Ottoman History III: Political history of Ottoman Empire between 1774 and 1839 is examined.

Turco-Islamic Art I: The arts of Turks before becoming Muslim are examined.

History of Turkish States in New and Near Ages I:
Political and civilization history of Timurid, Safavid, Aushar, Qajars, Akkoyunlu, Karakoyunlu Turkish states outside the Ottoman Empire in New Age are examined.
European History in New and Near Ages I: Political and civilizational history of New Age Europe is taught.

Ottoman History IV: Political history of Ottoman empire between 1839 and 1923 is examined.

Science in Turks: Science and Turkish scholars in Turkish states are examined.

History of Turkish Culture: Cultural history of Turks before and after Islam is examined.

History of Turkish States in New and Near Ages II: Political and civilizational history of Turkish states (Asian Khanates) outside Ottoman Empire in Near Age is examined.

European History in New and Near Ages II: Political and civilizational history of Near Age Europe is examined.

History and Social Sciences Instruction Methods: Education-instruction regulations applied in secondary schools and instruction methods in history course are given.

Ottoman History II: Research related to Ottoman history are performed by the students.

XX. Century Turkish History: XX. Century history of the Republic of Türkiye is examined.

Turco-Islamic Art II: Turkish art after Islam and Islamic art are taught.

Civics: Human rights and freedom, and the Turkish Constitution and law are taught.

Geography of Türkiye II: Geographical structure of Türkiye is examined.

DEPARTMENT OF GEOGRAPHY

The main aim of the Department of Geography is to train students as geography teachers for secondary schools. Theoretical and applied courses are given in the subjects of Physical Geography, Human Geography, Economic Geography, Regional Geography and Geography of Turkey besides research work on these subjects. Excursions are made occasionally in order to increase knowledge and evaluation talents of the students. Various history courses are also offered in the program leading to a B.A. degree in Geography.
## UNDERGRADUATE PROGRAM

### Freshman Year

**First Semester**
- Principles of Geomorphology
- General Climatology
- General Cartography I
- Energy Geography
- The History of Turkish Culture

**Second Semester**
- Climatological Applications
- Statistical Methods
- Population and Settlement
- Landslides and Erosion in Turkey

### Sophomore Year

**First Semester**
- Structural Geomorphology
- Urban Geography
- Regional Geography I
- Industrial Geography
- The History of Turkish Culture

**Second Semester**
- Hydrography
- Mineral Resources
- Regional Geography II
- Geography of Transportation
- Coastal and Karstic Geomorphology

### Junior Year

**First Semester**
- Climatic Geomorphology
- Map Analyses and Diagrams
- General Physical Geography of Turkey
- Political Geography
- Regional Geography III
- The History of Turkish Culture

**Second Semester**
- Vegetation Geography
- General Human Geography of Turkey
- Agricultural Geography
- Regional Geography IV

### Senior Year

**First Semester**
- Special Instruction
- Methods in Geography
- Hidrography of Turkey
- Geographical Regions of Turkey I
- Tourism Geography
- Population and Settlement in Turkey
- The history of Turkish Culture

**Second Semester**
- Geographical Regions of Turkey II
- Environmental Problems
- Geographical Researches
- Quaternary Geography
- Civics
COURSE DESCRIPTIONS

Principles of Geomorphology: Description of various topographical landforms, their evolution, geographical distribution, causes of their formation.

General Climatology: Climatic elements, their formation, and climate types, and the changes that occur during a time span.

General Cartography: Study of maps of various kinds and scales. Presentation methods of relief together with profile analyses. Map projections and their characteristics.

Energy Geography: Principal energy resources (i.e. coal, oil, hydroelectric, natural gas, wind and geothermal) and their global distribution. Energy resources in Turkey, their production, problems and future.

Climatological Applications: Applications related to General Climatology. Climatic types and classifications. Weather forecasts and synoptic map analyses.

Statistical Methods: Statistical methods in geographical studies. Analyses according to statistical results.

Population and Settlement: Characteristics of population distribution on the world and factors that influence such a distribution. Causes of population increase and results. Settlement and settlement types.

Landslides and Erosion in Turkey: Formation of landslides and their types. Reasons for landslides in Turkey and protective measures against them.

Structural Geography: Field of structural geomorphology, its history and methods together with land structures and relief features due to them.

Urban Geography: City concept, urbanization and classification of urban centers.

Regional Geography I: Physical, human and economical structures of Europe and Africa. Geographical characteristics of the countries that take place on these continents.

Industrial Geography: Factors for formation and development of industry (i.e. raw material, energy, transportation, marketing, capital). Industrial revolution, principal industrial areas both global and for Turkey.

Hydrograph: Principles of hydrography, characteristics of streams, lakes and underground waters.

Mineral Resources: Various mineral resources and their geographical distribution on the world map.
Regional Geography II: Physical, human and economical structures of Asia. Geographical characteristics of the countries that take place on this continent.

Geography of Transportation: History and distribution of various transportation routes (air, sea, highway and rail), together with reasons for such a distribution.

Coastal and Karstic Geomorphology: Study of coastal and karstic landforms.

Climatic Geomorphology: Study of landforms that have developed under the influence of climatic conditions. Various processes and classification of landforms accordingly and morphoclimatic regions.

Map Analyses and Diagrams: Analysis made on maps of differing types and scales. Diagrams used in geographical studies.

General Physical Geography of Turkey: General geology, geomorphology, climate, vegetative cover, soils and hydrological features of Turkey.

Political Geography: Development of political geography. Political characteristics and relations of the countries of the world.

Regional Geography III: General Physical, human and economical characteristics of America and Antarctica. Information on countries of America.

Vegetation Geography: Environmental conditions (climate, soil, relief, biotic and human factors) on which vegetative life depends. Distribution of vegetation formations and their features.

General Human Geography of Turkey: Studies on development of agriculture, industry, mining, transportation, tourism and commerce in Turkey.

Agricultural Geography: Agricultural activities and methods. Agricultural regions and their products.

Regional Geography IV: General physical, human and economical characteristics of Oceania, Features of its geographical regions.

Hydrography of Turkey: Streams, lakes and underground waters of Turkey, their hydrologic characteristics. Classification according to regions. Formation of lakes and their classification.

Geographical Regions of Turkey I: Physical, human and economical features of Marmara, Agean and Mediterranean regions. Geographical characteristics of parts of these regions.

Tourism Geography: Relation of tourism to geography. International tourism and its features. Factors in the development of tourism and regional distribution.
Population and Settlement in Turkey: Study of population and settlement characteristics in Turkey. Distribution according to regions.

Geographical Regions of Turkey II: Physical, human and economical features of Interior, Eastern, Southeastern Anatolia regions. Geographical characteristics of parts of these regions.

Environmental Problems: Soil, air and water pollution together with environmental problems related to fauna, flora residencies, traffic, energy, sound and their effects.

Geographical Researches: Study of researches on various physical, human, economical and regional geography subjects. Methods used in such researches.

Quaternary Geography: Climatic changes and their impact on earth during Quaternary.

Special Instruction Methods In Geography: Information on special methods used in teaching of geography in order to prepare students for field practice.

Civilts: Constitution, expropriation, social and political rights, jurisdiction, and related subjects.
DEPARTMENT OF TURKISH LANGUAGE AND LITERATURE

Head of Department : Prof. Dr. Birol EMİL
Professors : Ahmet TOPALOĞLU, Tahir ÜZGÖR
Associate Professors : Hikmet ÖZDEMİR
Assistant Professors : M. Atâ ÇATIKKAŞ, Mustafa DEMİREL, Mustafa KAÇALÎN
Instructors : Ayla DEMİROĞLU, Okan BABA, Kâmil TİKEN, Rahşan GÜREL, Zühal KÜLTÜRAL, Adnan AKGÜN, Vahap KABAHASANOĞLU, M. Ali AYD N, Meriç ÖKTEN, Ülkü EMİL, Gülsen Seyhan ALİŞIK, Yusuf YILDIRIM

Language of Instruction: Turkish

The Department of Turkish Language and Literature offers a B.A. program designed to train students as secondary school teachers in the field.

The curriculum is designed so as to provide the students with a firm knowledge of the whole field of Turkish Language and Literature as well as the opportunities to develop critical insight, sensitivity to human aspirations and consciousness of the keen perception essential for an effective style of communication.

The history of the language is studied in a wide perspective enabling the students to evaluate the changes in Turkish dialects, Turkish language and grammar and compare them with the Ottoman language and writing.
UNDERGRADUATE PROGRAM

Freshman Year

First Semester
Modern Turkish Literature I
Early Turkish Literature I
Analysis of the Texts
Turkish Grammar I
Ottoman Language and Writing
Turkish Composition I
Knowledge of the Turkish Literature

Second Semester
Modern Turkish Literature II
Early Turkish Literature II
Texts of the Modern
Turkish Literature I
Turkish Grammar II
Ottoman Language and Writing II
Turkish Composition II
Intro. to Turkish Language and Literature

Sophomore Year

First Semester
Modern Turkish Literature III
Early Turkish Literature III
Texts of the Modern of Turkish
Literature II
Turkish Grammar III
Ottoman Language and Writing III
Turkish Composition III

Second Semester
Modern Turkish Literature IV
Early Turkish Literature IV
Language and Culture
Turkish Grammar IV
Ottoman Language and Writing IV
Turkish Composition IV
Pronunciation

Junior Year

First Semester
Modern Turkish Literature V
Early Turkish Literature V
Western Literature I
Turkish Grammar V
Ottoman Language and Writing V
History of the Turkish Dialects I
Examples of the Turkish Dialects I

Second Semester
Modern Turkish Literature VI
Early Turkish Literature VI
Cultural Movements of Thoughts
Texts of the Modern
Turkish Literature III
Ottoman Language and Writing VI
History of the Turkish Dialects II
Examples of the Turkish Dialects II
### Senior Year

#### First Semester
- Modern Turkish Literature VII
- Early Turkish Literature VII
- History of the Turkish Criticism
- Turkish Folk Literature I
- Linguistics
- How to teach Turkish Language and Literature in secondary schools

#### Second Semester
- Modern Turkish Literature VIII
- Early Turkish Literature VIII
- History of the Turkish Drama
- Turkish Folk Literature II
- Western Literature II
- Early Turkish Language
- Field Practice

### COURSES DESCRIPTIONS

**Modern Turkish Literature:** In this course, the history of the Turkish literature from beginning of the XIX century to our date, is studied according to the writers and their works.

**Turkish Literature:** In this course the writers and works from the beginning till the end of the XIXth century are studied.

**History of the Turkish Criticism:** This course is based on the theories and ideas or opinions which dominate the XIX th and the XX th century Turkish Literary criticism.

**Cultural Movements of Thoughts in XIX th century:** The main thoughts and ideas reflecting the period starting from Tanzimat up to Turkish Republic.

**History of the Turkish Drama:** The history of the Turkish Drama from the beginning up to our day is studied.

**Turkish Folk Literature:** In this course the anonymous literature which contains sufiistic ideas and writers, literary types and lyrical poetry are studied from the beginning to the XX th century.

**Language and Culture:** The relationship between the language, literature and culture and the cultural values of the Turkish nation.

**The Texts of the Modern Turkish Literature:** This course is based on the analysis of the texts of the contemporary Turkish literature.

**Turkish Grammar:** The course is based on phonetics, morphology, syntax and semantics.

**Ottoman Language:** This course teaches the Arabic and Persian grammatical structure and their application to the Turkish literary works written in the Arabic alphabet.
Turkish Composition: Various aspects of writing a composition, technical rules, style, structure and plan in writing form and description of with the different examples are studied.

The History of the Turkish Dialects and Their Examples: The historical background and special periods of the Turkish dialects are studied. Some old important works in different dialects and the relationship of the grammatical structure between these and modern Turkish dialects.

Linguistics: This course is based on the various meanings of the words and the description of the different dictionaries.

Turkish Language: The first written works in Turkish language are studied and the grammatical characteristics of the language in the Old, Middle Ages and the Anatolian Dialects are learned.

Introduction to the Turkish Language and Literature: Institutions of Turcology and their handbooks and the terms of Turkish grammar are explained.

Pronunciation: The methods of pronunciation and the ways of effectual reading are studied.

Knowledges of the Turkish Literature: This program is based on special features of the form of the Turkish poetry and prose in various literary works.

How to teach Turkish Language and Literature: The students are informed about the Turkish Language and literature, and writing composition, the plan and syllabus, the titles of the subjects that are learned in the secondary schools.

Field Practice: A one-month required practice in secondary schools to become acquainted with the profession. (The first month of the 8th semester).
2. FACULTY OF ARTS AND SCIENCES

Dean : Prof. Dr. Mustafa Çetin Varlık
Assistant Deans: Prof. Dr. Mustafa Lütfü BERKEM
                Assoc. Prof. Dr. Necdet ÖZTÜRK,

The Faculty of Arts and Sciences was established on July 20, 1982 and moved to its current location on Göztepe Campus, in the 1991 - 1992 academic year.

The Faculty of Arts and Sciences first started education in the Mathematics, Turkish Language and Literature and History Departments on November 8, 1982. In 1988 - 1989, the Departments of Chemistry and Archive Studies, in 1993-1994 the Department of Physics were set up.

The Department of Biology and the Department of Western Languages and Literature are being set up.

Both the undergraduate and graduate curricula of The Faculty of Arts and Sciences are designed to provide students with a sound education in their respective fields as well as giving them the opportunity to develop communication skills, creative reasoning and social awareness. The Faculty has a main library in addition to some departmental libraries.

Presently the Faculty of Arts and Sciences consists of six departments offering programs leading to the degree of Bachelor of Arts in Archive Studies, History, Turkish Language and Literature, and to the degree of Bachelor of Science in Chemistry, Mathematics and Physics. All departments offer both undergraduate and graduate programs.
DEPARTMENT OF ARCHIVE STUDIES

Head of Department: Prof. Dr. İsmail ERÜNSAL
Associate Professor: İdris BOSTAN
Assistant Professors: Oğuz İÇİMSOY, Hamza KANDUR
Instructors: Talip MERT

Language of Instruction: English and Turkish

The Department of Archive Studies offers a B.A. program in records management and archive administration. The curriculum is designed to cover all aspects of managing information as well as a number of related subject areas. After the second year, students are offered elective courses through which they specialize either in modern records management or in Ottoman Archives and archive administration. The students begin a one-year course in intensive English if they are not yet proficient.

UNDERGRADUATE PROGRAM

Freshman Year

First Semester
Statistics
Introduction to Economics I
Business Administration
Introduction to Archives
   Administration I
Ottoman Turkish I
Ottoman History and Administrative Structure I
Introduction to Education (E)
Turkish I
Foreign Language
Atatürk Principles

Second Semester
Introduction to Archival Legislation
Introduction to Economics II
Information Resources
Introduction to Archives
   Administration II
Ottoman Turkish II
Ottoman History and Administrative Structure II
Sociology of Education (E)
Turkish II
Foreign Language
Atatürk Principles
### Sophomore Year

#### First Semester
- Ottoman History and Administrative Structure III
- Introduction to Computers I
- Records Management I
- Ottoman Archival Documents I
- Research Methods I
- Developmental Psychology (E)

#### Second Semester
- Ottoman History and Administrative Structure IV
- Introduction to Computers II
- Records Management II
- Ottoman Archival Documents II
- Research Methods II
- Psychology of Learning (E)
- Atatürk Principles

### Junior Year

#### First Semester
- Practical Training I
- Arrangement & Description I
- Ottoman Administration (1839-1920) I
- Turkish History (1789-) I
- History of Economic Developments
- Information Management I (E)
- Computer Applications in Archives I (E)
- Ottoman Paleography I (E)
- Advanced Ottoman Turkish I (E)
- Persian I (E)
- Measurement and Evaluation (E)

#### Second Semester
- Arrangement & Description II
- Ottoman Administration (1839-1920) II
- Turkish History (1789-) II
- Restoration
- Information Management II (E)
- Computer Applications in Archives II (E)
- Ottoman Paleography II (E)
- Advanced Ottoman Turkish II (E)
- Persian II (E)
- Guidance and Psychological Counselling

### Senior Year

#### First Semester
- Practical Training II
- Archival Developments in Republican Period I
- Management of Archives I
- Research in Archives I
- Computer Applications in Archives III (E)
- Librarianship & Documentation I (E)
- Diplomatics I (E)
- Ottoman Archival Documents II (E)
- Advanced Ottoman Turkish III (E)
- History of Ottoman Culture & Civilisation I (E)
- Principles and Methods of Education (E) Elective courses

#### Second Semester
- Archival Developments in Republican Period II
- Management of Archives II
- Research in Archives II
- Computer Applications in Archives IV
- Librarianship & Documentation II (E)
- Diplomastics II (E)
- Ottoman Archival Documents IV (E)
- Advanced Ottoman Turkish IV (E)
- History of Ottoman Culture & Civilisation II (E)
- Private Archives (E)
- Historical Geography (E)
- Education Management
COURSE DESCRIPTIONS


Introduction to Archival Legislation: Legislative matters concerning archives and records management; definition of a record, evidence act, archives act, bankruptcy act, copyright and transborder data flow law, statutory retention, elements of the criminal code. Relations of these to archives and records management.

Introduction to Economics: Covers both micro and macro economics issues such as the principles and techniques of economic systems, ownership, allocation of resources, consumer behavior, companies, traders and farmers, level of income, employment and the flow of investment.

Business Administration: Patterns of management analysis, the function and authority of the manager, the manager and his/her environment. Planning; decision making, organising; departmentation, line and staff authority relationships, service departments, decentralisation of authority. Staffing, directing and controlling; control techniques and control of overall performance.

Information Resources: Use of information resources such as bibliographic publications, abstracts, indexes, encyclopedias and almanacs. Theoretical and practical training in library research, methods of research, preparation of research reports.

Introduction to Archives Administration: The emergence of archives concept, archives and society, archival materials, pre-paper materials (clay, stone, papyrus, parchment, etc.), paper and its history, machine readable archives, development of archives and archival profession in Europe, North America and Turkey.

Ottoman Turkish: A study of the script and linguistic features of Ottoman Turkish to be followed with readings in prose and poetry as well as examples of historical texts, from different periods of Ottoman History.

Ottoman History and Administrative Structure: Administrative structure of Ottoman Empire until the second half of the nineteenth century. Changes in society and their effects on the Ottoman administration.

Introduction to Computers: Development of computers and computer science. Hardware and software. Operating systems, software packages; word processing, database management, spreadsheet, desk top publishing and graphics.

Records Management: The scope of records management, duties of records manager and the life cycle management of records from their creation to final destruction or transfer to record centres and national archives, techniques of managing current records and filing systems.
Ottoman Archival Documents: Examples of Ottoman archival documents.


Practical Training: Minimum forty days of practical work in a government and/or private archive.

Arrangement & Description: Archival principles; provenance, original order and original record. Acquisition, arrangement, description and retrieval of records. Photographic, cartographic, audio-visual and computer generated records and their management.

Ottoman Administration (1839-1920): Structure of Ottoman central and provincial administration from 1839 to 1920.

Turkish History (1789-): General history after the French revolution with special emphasis on Turkish history.

History of Economic Developments: Economic and financial institutions of the Ottoman Empire and their structure. Economic development and decline of the Empire.

Restoration: Care and repair of paper and other archival materials.

Information Management: How to manage information as a commodity. Design and implementation of organisational information systems. Relations between archives administration and information management.

Computer Applications in Archives: Use of computers in archives and government offices; computerization of archival finding aids, computer aided document management and computer generated records.

Ottoman Paleography: Types of Ottoman scripts and examples of calligraphy.

Advanced Ottoman Turkish: Reading and understanding Ottoman hand written documents.

Persian: A general understanding of Persian language and its characteristics. Examples from Persian literature. Reading, writing and speaking skills.

Archival Developments in Republican Period: Administrative structure of the Turkish Republic. Its institutions and changes in the administrative system since 1920. Development of archival profession and the Republican Archives.
DEPARTMENT OF BIOLOGY

Head of Department: Prof. Dr. Belma Derman SEMİZ
Professors: Sabri SÜMER, Nebahat GENÇ, Ahmet ZEHİR,
Assistant Professor: Rikap Yüce
Instructor: Dr. GünayÇOLAKOĞLU

Language of Instruction: Turkish

Biology is a branch of science which examines the symptoms and causes of all phenomena in the life of organisms as well as in physical and chemical changes. How and in which shape the whole living processes in humans, animals and plants manifest is exposed through biological laws and principles.

Biology is also a branch of science which examines the evolutionary pasts, the structures, the living activities, conducts the relationships with the environment and the abilities of the organisms. The outer and inner structures, along with the birth and formation of the organisms and every act of living activities in the organisms forms the themes of biology. In our department these themes are presented to our students in the following main branches: Botany, General Biology, Molecular Biology, Zoology, Hydrobiology and Microbiology.

Because the Department has recently been established, the course curriculum has not yet been devised.
DEPARTMENT OF CHEMISTRY

Head of Department : Prof. Dr. Nurbay GÜLTEKİN
Professors : Adnan AYDIN,
            Mustafa Lütfi BERKEM,
            Yurdun F RAT, Mine ENGİNÜN,
Associate Professors : Mustafa BULUT, Zeynep Sibel ÖZDOĞAN,
                      Kemal YELEKÇİ
Assistant Professors : Sülin TAŞÇİoğlu, Ayşe OGAN, Nesrin ALPTEKİN
Instructors : Mukadder UZUN

Language of Instruction : Turkish

The Department of Chemistry offers a Bachelor of Science degree in Chemistry. The prescribed curriculum consists of compulsory basic courses; elective courses and seven different options. The graduation thesis and the seminar allow students to further their knowledge in their chosen option.

Education courses are not listed among the departmental courses. Interested students may take additional courses from the Education Department of Atatürk Faculty of Education.

UNDERGRADUATE PROGRAM

Freshman Year

First Semester

General Chemistry I
General Chemistry Lab. I
Physics I
Mathematical Analysis I
Turkish I
Foreign Language I
Atatürk Principles

Second Semester

General Chemistry II
General Chemistry Lab. II
Physics II
Mathematical Analysis II
Computer Programming
Turkish II
Atatürk Principles
### Sophomore Year

**First Semester**
- Mathematical Applications in Chemistry I
- Analytical Chemistry I
- Analytical Chemistry Lab. I
- Physical Chemistry I
- Physical Chemistry Lab. I
- Inorganic Chemistry I
- Inorganic Chemistry Lab. I

**Second Semester**
- Mathematical Applications in Chemistry II
- Analytical Chemistry II
- Analytical Chemistry Lab. II
- Physical Chemistry II
- Physical Chemistry Lab. II
- Inorganic Chemistry II
- Inorganic Chemistry Lab. II

### Junior Year

**First Semester**
- Organic Chemistry I
- Organic Chemistry Lab. I
- Instrumental Analysis I
- Instrumental Analysis Lab. I
- Environmental Pollution and Protection
- Chemical Thermodynamics
- Optional Course

**Second Semester**
- Organic Chemistry II
- Organic Chemistry Lab. II
- Instrumental Analysis II
- Instrumental Analysis Lab. II
- Chemical Bibliography
- Coordination Chemistry
- Optional Course

### Senior Year

**First Semester**
- Inorganic Industrial Chemistry
- Organic Chemistry III
- Biochemistry I
- Biochemistry Lab. I
- Industrial Analysis
- Chemical Kinetics
- Optional course
- Graduation Thesis
- Elective course

**Second Semester**
- Nuclear Chemistry
- Organic Industrial Chemistry
- Biochemistry II
- Biochemistry Lab. II
- Elective course
- Optional course
- Seminar

### Optional Groups

**Junior Year**
- **Group I**
  - Environmental Technologies I
  - Environmental Chemistry and Analyses

**Senior Year**
- Environmental Technologies II
- Water and Technologies
Group II
Drug Active Chemicals
Food Chemistry

Industrial Microbiology
Clinical Biochemistry

Group III
Theoretical Chemistry I
Photochemistry

Theoretical Chemistry II
Nuclear and Radiochemistry

Group IV
Intr. to Macromolecular Chemistry
Polymer I

Polymer Technology
Polymer II

Group V
Textile Chemistry
Surface Active Agents and Colloids

Dye Technology
Dyestuffs and Dyeing Technologies

Group VI
Corrosion
Catalysis and Adsorption

Selective Surfaces
Electrochemical Industries

Group VII
Fuel Technology
Fuel Chemistry

Solar Technology
Industrial Cells

Group VIII
Introduction to Organic Chemistry
Laboratory Techniques in Organic Chemistry

Mechanisms of Organic Reactions
Multistep Organic Synthesis

ELECTIVES
(Senior Year)

Steroid Chemistry
Pheromon Chemistry
Electrochemical Technologies
Safety in Chemical Production
Boron and Silicium Chemistry
NMR and Its Applications
Unit Processes I
Computer Programming
Molecular Biology I

Pesticides
Metallurgy
Chemistry in Archeology
Structure Elucidation of Organic Compounds
Forensic Chemistry
Macrocyclic Ethers
Unit Processes II
Computer Application in Chemistry
Molecular Biology II
COURSE DESCRIPTIONS

General Chemistry I: Chemical Foundations, Atoms, Molecules and Ions, Stoichiometry, Solution Stoichiometry and Chemical Analysis, Gases, Thermochemistry, Atomic Structure and Periodicity, Bonding, Covalent Bonding, Orbitals.


General Chemistry Lab. II: Acid-Base Titrations, Redox Titrations, Determination of Solubility Product, Determination of Equilibrium Constants.

Physics I: Scope of Physics, Kinematics, Dynamics, Work and Energies, Circular Motion, Gravitation, Rotational Motion of Rigid Bodies, Static and Dynamic of Fluids, Heat and Gases.


Mathematical Analysis I: Set Theory, Linear Algebra, Real Numbers and Functions of One Variable, and Properties of These Functions, Indefinite Integrals and Definite Integrals and Their Applications.

Mathematical Analysis II: Vectors, Vector Functions and Motion, Surface, Coordinate Systems and Drawing, Functions of Two or More Variables and their derivatives, Applications of Partial Derivatives, Multiple Integrals, Vector Fields and Integration, Differential Equations.


Analytical Chemistry I: Evaluation of Analytical Data, Solubility of Precipitates, Gravimetric Analysis, Qualitative Analysis.

Prerequisite: General Chemistry I or II and General Chemistry Lab I or II.
Analytical Chemistry II: Titrimetric Methods, Precipitation Titrations, Neutralization Titrations, Acid-Base Titrations in Nonaqueous Media, Complex Formation Titrations, Oxidation-Reduction Titrations.

Prerequisite: General Chem. Lab. I and II

Analytical Chemistry Lab. II: Gravimetric Analysis, Volumetric Analysis.

Physical Chemistry I: Gas Laws, First and Second Laws of Thermodynamics, Liquids, Solutions, Phase Equilibria.
Prerequisite: General Chemistry I or II and General Chem. Lab I or II.


Physical Chemistry Laboratory I: Determinations of Viscosity Coefficient, Surface Tension, Molecular Weight, Gas Law, Adsorption, Detn. of Isotherm for Three Component System, Det. of Heat of Vaporization, Solubility, Van't Hoff Isochore, Nernst Law.

Physical Chemistry Laboratory II: Molecular Weight Determination by Boiling Point Elevation Method, Heat of Neutralization, Steam Distillation, Experimental detn. of Reaction Rate, Potentiometric, Conductometric Titrations, Phase Equilibrium.

Inorganic Chemistry I: Units Processes For the Separation of Minerals From Gang and Other Minerals, Transportation and Elevation.
Prerequisite: General Chemistry I or II or General Chem. Lab. I or II

Prerequisite: Inorganic Chemistry I

Inorganic Chemistry Laboratory I: Sieve Analysis, Rockwell hardness, Stoichiometric Problems, Synthesis of some Inorganic Compounds

Inorganic Chemistry Laboratory II: Synthesis of some Coordination Compounds, Stoichiometric Problems.

Prerequisite: General Chemistry I or II and General Chem. Lab. I or II
Prerequisite: Organic Chem. I

Organic Chemistry Laboratory I: Principles of laboratory techniques, synthesis, purification and characterization of solid, liquid substances.
Prerequisite: General Chemistry II and General Chem. Lab. I

Organic Chemistry Laboratory II: Synthesis and Characterization of twenty different compounds.
Prerequisite: Organic Chem. Lab. I

Instrumental Analysis I: Modern Analytical methods, elementary concepts, electromagnetic spectrum, Interaction between radiant energy and Matter. Rotational, Vibrational and electronic spectra, fluorescence and phosphorescence.
Prerequisite: Analytical Chem. II and Analytical Chem. Lab. II

Instrumental Analysis II: UV, visible and infrared spectroscopy, nuclear magnetic resonance, spectroscopy. mass spectrometry, chromatographic methods and instrumentation, emission spectroscopy, atomic absorption spectroscopy, thermal analysis
Prerequisite: Instrumental Analysis I

Instrumental Analysis Laboratory I: Determination of dissociation constants, polarimetry, refractometry, turbidimetry, electroanalytic chemistry, HPLC.
Prerequisite: Analytical Chemistry Lab. II

Instrumental Analysis Laboratory II: Simultaneous determination of chromium and manganese identification and determination of complex ions in solutions, establishment of spectral wavelength and colorimetric iron determination, determination of the compositions of coordination compounds, atomic absorption spectroscopy, gas chromatographic analysis.

Environmental Pollution and Protection: Ecology and its principles, ecosystems, properties of sea and freshwaters, biological circle of elements, important water pollutants, thermal pollution, air pollution and human health, soil pollution, protection of environment, technics for the environmental protection, radioactive pollutants and protection.

Chemical Thermodynamics: Equations of state, principle of corresponding states and the compressibility factor. combined first and second law of thermodynamics, Maxwell Relations and the Thermodynamic Square. Methods Of Calculating Thermodynamic Properties of Pure Substances, Deviation from Ideal Gas Behavior. The concept of ideal solution, partial molar quantities. Chemical potential as a criterion of thermodynamic equilibrium. phase equilibria of pure substances and multicompo-
ment mixtures non-ideal solutions, fugacity and activity coefficient. Chemical equilibrium in gas phase reactions.
Prerequisite: Physical Chemistry I, Math. Appl. in Chemistry I or II

**Coordination Chemistry:** Elementary concepts of coordination chemistry, structure evaluation, equilibrium constants.

**Chemical Bibliography:** Chemical bibliography, systems, documentation rules.

**Organic Chemistry III:** Carbohydrates, aliphatic amines, arylamines, phenols, amino acids, peptides, proteins and lipids. heterocycles, pericyclic reactions.

**Inorganic Industrial Chemistry:** Properties and productions of gases, sulfur, sulfuric acid, ammonia, pigments, clays, ceramics and refractories, cement, aluminium and its compounds, copper and compounds, glass, porcelain and enamel, carbon, diamond, activated carbon, graphite fertilizers, electrothermic processes, soda and some sodium compounds. ferro-, calcium, phosphorus and fluorine compounds.

**Biochemistry I:** Reactions and metabolism of amino acids, proteins and nucleic acids are discussed in detail.
Prerequisite: Organic Chemistry I and II, concurrently with Organic chemistry III.

**Biochemistry Lab I:** Experiments are designed for qualitative and quantitative analysis of amino acids, proteins and nucleic acids by various techniques and instruments. (Total of 12 experiments)

**Biochemistry II:** Reactions, degradation and biosynthesis of carbohydrates; fats and lipids, vitamins and hormones are discussed in detail.
Prerequisite: Biochemistry I or consent of the instructor.

**Biochemistry Lab. II:** Experiments are designed for identification, separation and reactions of carbohydrates, lipids, and vitamins and hormones by various techniques and instruments.

**Industrial Analysis:** Sampling fuels and their analyses, bitumens and related compounds, gas analysis, water analyses, fertilizers, glass, cement, fats and oils analyses, soap and surface active agents' analyses.

**Chemical Kinetics:** Reaction rate, reaction order, collision theory, absolute rate theory, reaction mechanisms.

**Nuclear Chemistry:** Development of radioactivity, nuclear physics, and nuclear chemistry, the fundamental particles, nucleus, spontaneous radioactive transformations, nuclear reactions, fission and nuclear reactors, natural radioelements, nuclear fusion and thermo-nuclear reactions, the detection and measurement of radiation, technological and industrial appl. of radioisotopes.

Environmental Technology I: Air quality standards, major air pollutants, stationary and mobile pollution sources. Emission inventories, source measurement and monitoring, cyclones, scrubbers and other gas cleaning technologies. New environmentally acceptable combustion technologies. Introduction to air pollution modelling. Required course for Option in Environmental Chemistry, or as Elective.


Environmental Chemistry and Analyses: Sampling from different sources, water and wastewater analyses, gas analyses. Required course for option in Environmental Chemistry, or as elective.

Water and Technologies: Fresh water analysis, treatment methods and analysis. Required course for option in Environmental Chemistry or as elective.

Biologically Active Compounds: Steroids, alkaloids, postaglandings, vitamins, beta-lactams and tetracyclines. Required course for option in biochemistry; or as elective.

Food Chemistry: Major nutritional content of food stuff are studied. Experiments for determination of the content of nutritional components in food stuff are performed. Required course for option in biochemistry; or as elective.

Industrial Microbiology: Introductory course for utilization of microorganisms in industry, their selection and optimization are studied.

Clinical Biochemistry: Fundamentals of clinical biochemistry are reviewed. Clinical methods in blood, plasma, serum and urine are reviewed and qualitative and quantitative determinations are performed.

Theoretical Chemistry I: Modern Theories in Bonding, Electron Distribitution, Ligand Field and Crystal Field Theories.


Introduction to Organic Reactions: Scope of organic chemistry why and how the organic reactions occur. What are the functional groups. How do they involve in chemical reactions.
Laboratory Techniques in Organic Chemistry: Fractional, vacuum distillation and fractional crystallization techniques will be practiced. Carrying out organic synthesis under inert atmosphere is going to be examplified.

Theoretical Chemistry II: The elements of wave mechanics, classical mechanics, quantum mechanics, are discussed. Approximate methods of solution of Shrödinger equation are briefly presented.


Introduction to Macromolecular Chemistry: Introduction to polymers, molecular weight, end-to-end distance, Deformatic Glass Transition, Polymerization Reactions. Required course for option in polymer chemistry; or as elective.

Polymer I: Condensation polymerization, addition polymerization, copolymerization. Required course for option in polymer chemistry; or as elective.

Polymer II: Polymerization conditions and polymer reactions, olic polymers, vinyl polymers, heterochain thermoplastics. Required course for option in polymer chemistry; or as elective.

Polymer Technology: Molding, extrusion, plasticizers and other additives. Required course for option in polymer chemistry; or as elective.

Textile Chemistry: Chemistry in the textile industry. Required course for option in textile chemistry; or as elective.

Surface Active Agents and Colloids: Colloidal state, kinetic properties, optical properties, liquid-gas and liquid-liquid interfaces, solid-liquid interfaces, solid-gas interface, electrical properties, colloid stability.

Dye Technology: Basic Concepts of dyes, synthesis, raw materials and intermediates, unit processes. Required course for option in textile chemistry; or as elective.

Dye-stuffs and Dyeing Technologies: Dyestuff chemistry and Dyeing Technologies. Required course for option in textile chemistry; or as elective.

Corrosion: Corrosion of metals and alloys, types of corrosion, electrochemical corrosion, corrosion testing.

Selective Surfaces: Review of radiative heat transfer, radiative properties of surfaces, measurement techniques, theory of electromagnetism and polarization. Elec-
trochemical deposition and other coating techniques. Selective surface applications in solar technology.

**Catalysis and Adsorption:** Basic Principles, heterogenous catalysis, quantitative aspects of adsorption and catalysis in fine-chemicals industry, catalysis in petroleum chemistry.

**Electrochemical Industries:** Chlor-alkali industry, electrolytic heavy water manufac-
ture, copper electrorefining, aluminium electrowinning, silver electrorefining, magne-
sium electrowinning, sodium electrowinning, electrodeposition of metals.

**Fuel Technology:** Overview of fossil fuel resources, with particular emphasis on Turkish reserves. Coal beneficiation, briquetting, gasification and liquefaction. natural gas as an alternative clean fuel, fuel cells. introduction to coal liquids and syn-
fuels.

**Solar Technology:** Extraterrestrial radiation. diffuse and global components of solar radiation. measurement of insolation incident on surfaces of different orientation. in-
solation models, correlations between diffuse and global radiation. Flat plate and concentrating collectors. solar water heating and solar industrial process heat produ-
duction. Long Term average performance calculations of principal collector types.

**Mechanism of Organic Reactions:** Anionic, cationic, radical and concerted reaction mechanisms will be discussed in detail.

**Multistep Organic Synthesis:** Retrosynthetic analysis of simple organic com-
ounds are presented and the laboratory synthesis of these compounds are carried out.

**Fuel Chemistry:** A study of analytical and instrumental methods for complete fuel analysis including sampling and preparation techniques. Emphases placed on envi-
ronmental and technological aspects of fuel utilization and fuel enhancement meth-
ods.

**Industrial Cells:** Primary cells, secondary cells, photogalvanic cells, fuel cells.

**Steroid Chemistry (Elective course):** Chemistry of steroids, isolation, identifica-
tion and uses.

**Pesticides:** Classification, synthesis and use of pesticides.

**Pheromone Chemistry:** Structure elucidation, synthesis, stereobiology, and biosyn-
thesis of insect pheromons. practical applications.

**Metallurgy:** Principal processes in metallurgy, properties and production of metals.

**Electrochemical technologies:** Chlor-Alkali industry, electrolytic metal refining, me-
tals electrowinning.
Chemistry in Archeology: Use of chemistry in archeology.

Safety in Chemical Production: Toxicology, industrial hygiene, source models, toxic release and dispersion models, fires and explosions, designs to prevent fires and explosions, relief sizing, hazards identification, risk assessment, incident investigations.

Structure Elucidation of Organic Compounds: Analysis of Organic molecular structure by use of modern spectroscopic methods of IR, UV-Vis, MS and NMR.

Boron and Silicon Chemistry: Boron, its chemistry, reactions, and uses. Silicon, its chemistry, reactions and uses.

Forensic Chemistry: Chemical problems encountered in crime lab. Special techniques.

NMR and Its Applications: The basic theory of NMR and Application to structural analysis.


Unit Processes I: Fluid mechanics, heat transfer.

Unit Processes II: Evaporation, distillation, extraction.

Computer Programming: BASIC statements, and functions, management of sequential files, management of random files.

Computer Application in Chemistry: Linear programming, optimization methods, iterative solution of nonlinear equations.

Molecular Biology I: Structural and molecular organization of Prokaryotic and Eukaryotic cells and their function interrelation.

Molecular Biology II: Methods of investigation of structure and function interrelationship of Chromatin.
DEPARTMENT OF HISTORY

Head of Department: Prof. Dr. Mücteba İLGÜREL
Professors: Mustafa Çetin VARLIK, Cevdet KÜÇÜK, Bülent İPLİKÇİOĞLU
Associate Professors: Nuray YILDIZ, Necdet ÖZTÜRK
Assistant Professors: Ahmet ŞİMŞİR GİL, Ali KARACA, Zekeriya KURŞUN, Ali AKYILDIZ, Süleyman BEYOĞLU, Ufuk GÜLSOY, Kemalettin KÖROĞLU, S. Süleyman KUCUR
Instructors: Mehmet GENÇ, Nihat AZAMAT, Sema ÖĞÜT, Aygün ÜLGEN

Language of Instruction: Turkish

The Department of History offers a B.A. program in History, mainly concentrating on the history of the Near East and Central Asia.

The objective of the Department is to train future historians highly qualified in the professional field. Thus the curriculum is designed not only to enrich the knowledge and the general culture of the students but to increase their intellectual analytical capacity as well.

Related courses on Ottoman History enable the students to read and understand Ottoman Turkish.

Besides the compulsory main courses, students have the opportunity to broaden and diversify their studies by taking elective courses offered by the Department.
## UNDERGRADUATE PROGRAM

### Freshman Year

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<th>First Semester</th>
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<td>History of Ancient Anatolia</td>
<td>Ancient History of Anatolia</td>
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<tr>
<td>Pre-Ottoman Anatolia</td>
<td>Early History of Mesopotamia</td>
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<tr>
<td>Turkic History</td>
<td>and Egypt</td>
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<tr>
<td>Ottoman Turkish I</td>
<td>History of Ancient Cultures</td>
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<tr>
<td>Foreign Language I</td>
<td>Islamic History I</td>
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<tr>
<td>Turkish I</td>
<td>Ottoman History (Classical Age) I</td>
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<tr>
<td>Atatürk Principles</td>
<td>Ottoman Turkish II</td>
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<tr>
<td>Introduction to Education</td>
<td>Historiography</td>
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<td>Foreign Language II</td>
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<td>Turkish II</td>
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<td>Atatürk Principles</td>
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<td>Sociology of Education</td>
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### Sophomore Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>History of Hellen</td>
<td>History of Europe (Middle Ages)</td>
</tr>
<tr>
<td>History of Early Muslim Turkic States</td>
<td>History of Seljukids</td>
</tr>
<tr>
<td>Islamic History II</td>
<td>History of Roman Empire</td>
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<tr>
<td>Central Institutions of Ottoman State I</td>
<td>Central Institutions of Ottoman State II</td>
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<tr>
<td>Ottoman History (Classical Age) II</td>
<td>History of Ottoman Civilization</td>
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<tr>
<td>Ottoman Turkish III</td>
<td>Economic History</td>
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<tr>
<td>Atatürk Principles</td>
<td>Cultural History of Turkic Peoples</td>
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<tr>
<td>Developmental Sociology</td>
<td>Ottoman Turkish IV</td>
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<td>Psychology of Learning</td>
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### Junior Year

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<tr>
<th>First Semester</th>
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<tbody>
<tr>
<td>History of Europe (Modern Age)</td>
<td>History of Islamic Civilization I</td>
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<tr>
<td>Central Asian Turkic History</td>
<td>History of Anatolian Seljukids</td>
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<tr>
<td>Ottoman Diplomatics</td>
<td>Methodology</td>
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<tr>
<td>Peripheral Institutions of Ottoman State I</td>
<td>History of Ottoman Empire</td>
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<tr>
<td>Economic History of Ottoman Empire</td>
<td>Peripheral Institutions of Ottoman State II</td>
</tr>
<tr>
<td>Ottoman Turkish V</td>
<td>Political History of Ottoman Empire (1789-1876)</td>
</tr>
<tr>
<td>Measurement and Evaluation</td>
<td>Reform Movements in Ottoman Empire (1718-1876)</td>
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<tr>
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<td>Ottoman Turkish VI</td>
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</tbody>
</table>
### Senior Year

#### First Semester
- Peripheral Institutions of Seljukids
- History of Islamic Civilization II
- Contemporary Turkic World I
- Studies on Ottoman Documents
- Political History of Ottoman Empire (1876-1918)
- Reform Movements in Ottoman Empire (1876-1914)
- Principles and Methods of Education

#### Second Semester
- Humanities
- Contemporary Historiography
- Ottoman Politics for Settlement
- History of Turkish Republic
- Constitutional Movements in Turkey
- Institution of "İlmiyye"
- Contemporary Turkic World II
- Education Management

### COURSE DESCRIPTIONS

**Turkic History:** Pre-Islamic history of the major Central Asian Turkic tribes and states.

**History of Ancient Anatolia:** A survey of pre-historic Anatolia. (Up to the Greco-Roman period)

**Pre-Ottoman Anatolia:** A course in which political and social developments between the fall of Anatolian Seljukids and the rise of Ottomans are studied.

**Ottoman Turkish I-VI:** Courses which aim at rising the abilities of the students to use the Ottoman sources. They are compulsory courses up to the end of the B.A. program.

**Ancient History of Anatolia, Mesopotamia and Egypt:** A survey of Anatolia, Mesopotamia and Egypt which takes their history from the end of the forth millenium B.C. up to the end of ancient times of these regions. (A.D. III-VI).

**History of Ancient Cultures:** To inform about the alphabets, languages, libraries, writing materials, legends and the evolution of philosophy in the ancient times.

**Islamic History I, II:** A general survey of the political history of Islamic states, which begins with the emergence of Islam up to the Seljukids.

**Ottoman History (Classical Age) I, II, III:** A political history of Ottomans up to their emergence as an empire.

**Historiography:** A survey of Eastern and Western historians and their works.

**History of Hellen:** A brief history of Greeks in the ancient ages.
History of Early Muslim Turkic States: Political and social history of Karahanids and Gaznavids.

Central Institutions of Ottoman State I, II: The evolution of bureaucracy and administration in the Ottoman Empire.

History of Europe (Middle Age): A general and political history of Europe in the middle ages.

History of Europe (Modern Age): A general and political history of Europe in the modern ages.

Cultural History of the Turkic Peoples: A survey of Turks of Russia in the XIX.-XX. centuries with special emphasis on the history of press, education, social and political life.

History of Seljukids: A political and cultural history of Seljukid Empire.

History of the Roman Empire: A course on the political history of the Roman Empire. It is a continuation of the courses on ancient times given in the previous semesters.

History of Ottoman Civilization: Sciences, arts, belles-lettres and religious life in the Ottoman Empire.

Economic History: Analysis of the theories on economic history.

Economic History of Ottoman Empire: A detailed analysis of the aspects of economic life in the Ottoman Empire.

Ottoman Diplomatics: Analysis of Ottoman archival documents related to diplomatic correspondence.

Peripheral Institutions of Ottoman State I, II: Administrative structure of the periphery and its relations with the center.

History of Islamic Civilization I, II: A survey aiming at analyzing the aspects of Islam on political, social and religious life.

History of Anatolian Seljukids: A detailed course with special emphasis on the Seljukids in Anatolia-with their fall-on the principalities and their relations with Ottomans in the rising period.

Methodology: An analytical course on criticising the historical sources.
Central Asian Turkic History: Political and cultural developments between 1905-1917 among the Turkic peoples of Russia and China.

Contemporary Turkic World I, II: Analysis of the Turkic peoples of the former USSR, their historical, cultural, political and social developments.

Political History of Ottoman Empire I: Occurrence of the French Revolution and its impacts on the Ottoman Empire until the first constitutional movement in 1876.

Political History of Ottoman Empire II: A survey of the political events in the Ottoman Empire from Abdülhamid II to the end of the Empire.

History of Turkish Republic: The process of political and social developments in the Republican era up to 1990.

Studies on Ottoman Documents: Ottoman Turkish is one of the most emphasized courses of the Department. At the end of this course it is demanded from the students that they should be able to read and understand the Ottoman documents (both printed and manuscript) fluently.

Ottoman Politics for Settlement: In this course, the employment of nomads and tribes by the government, for internal and external affairs by settling them is analyzed.

Reform Movements in the Ottoman Empire I, II: This course focuses upon the evolution of administrative philosophy of the Ottomans and its reflections on the administrative, fiscal, military, judicial and educational spheres both at the center and at the periphery from the beginnings of 18th. century.

Constitutional Movements in Türkiye: A close focus upon the democratization process in the Republican era by taking it from the First Constitution (1876).

Institution of "İlimiyə": A survey of educational life with special emphasis on the relations between the "Ulema" and the state mostly in the classical period.

Contemporary Historiography: An analytical course on the philosophers and their philosophies of history in the 20th century.
DEPARTMENT OF MATHEMATICS

Head of Department : Prof. Dr. Afet ÖZOK
Associate Professors : Ahmet DERNEK, Semin AKDOĞAN
Assistant Professors : Yaşar POLATÖĞLU, Ayşe Neşė DERNEK,
Adnan MAZMANOĞLU, Nâşir Abdülbaki BAYKARA,
S. Ümit FIRAT

Language of Instruction: Turkish

The undergraduate program in Mathematics offers students the opportunity to acquire basic competence in the fundamentals of both pure and applied mathematics. The curriculum is designed to prepare students for graduate study in mathematics or in related areas of other sciences. The program provides a good foundation for those who wish to pursue careers in teaching or in research or in related areas of science, technology, business or government where mathematics is important.

UNDERGRADUATE PROGRAM

Freshman Year

First Semester
Mathematical Analysis I
Analytic Geometry I
Linear Algebra I
Physics I
Turkish I
Atatürk Principles
Introduction to Education
Foreign Language I

Second Semester
Mathematical Analysis II
Analytic Geometry II
Linear Algebra II
Physics II
Turkish II
Atatürk Principles
Sociology of Education
Foreign Language II

Sophomore Year

First Semester
Mathematical Analysis III
Algebra I
Differential Equations I
Physics III
Developmental Sociology

Second Semester
Mathematical Analysis IV
Algebra II
Differential Equations II
Projective Geometry
Psychology of Learning
## Junior Year

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<tr>
<td>Numerical Analysis I</td>
<td>General Topology</td>
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<tr>
<td>Theory of Complex Functions I</td>
<td>Theory of Complex Functions II</td>
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<tr>
<td>Differential Geometry I</td>
<td>Introduction to Probability</td>
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<tr>
<td>Algebra III</td>
<td>Differential Geometry II</td>
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<tr>
<td>Measurement and Evaluation</td>
<td>Numerical Analysis II</td>
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<td>Guidance and Psychological Counselling</td>
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## Senior Year

<table>
<thead>
<tr>
<th>First Semester</th>
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<tbody>
<tr>
<td>Partial Differential Equations</td>
<td>Real Analysis</td>
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<td>Probability</td>
<td>Mathematical Statistics</td>
</tr>
<tr>
<td>Computer Programming I</td>
<td>Computer Programming II</td>
</tr>
<tr>
<td>Algebraic Geometry</td>
<td>Functional Analysis</td>
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<tr>
<td>Applied Mathematics I</td>
<td>Applied Mathematics II</td>
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<tr>
<td>Principles and Methods of Education</td>
<td>Education Management</td>
</tr>
</tbody>
</table>

## COURSE DESCRIPTIONS

**Mathematical Analysis I:** Introduction to Set Theory, Boolean Algebra, mappings, natural numbers, sequences and infinite series, functions, limit, continuity, derivative and its applications, higher order derivatives, Rolle’s Theorem, the Mean Value Theorem.

**Mathematical Analysis II:** Functions and graphical representations, special functions, logarithmic, exponential and hyperbolic functions, sequences and infinite series, tests for convergence, power series, Taylor’s formula, trigonometric functions, integration, Riemann’s integral, indefinite integrals.

**Analytic Geometry I:** Vectors in Affine space, properties of geometrical figures, linear dependence, barycentric equations and coordinates, Euclidean space, lines and planes, basic problems.

**Analytic Geometry II:** Affine conics, conics in euclidean spaces, quadric surfaces.

**Linear Algebra I:** Vectors, vector spaces, matrices and determinants, systems of linear equations, linear mappings, polynomials of matrices.

**Linear Algebra II:** Linear functionals and dual spaces, inner product spaces, bilinear, quadratic and hermitian forms.
Physics I: Vectors, one dimensional motions, particle dynamics, work and energy, linear momentum, rigid systems, gravitation, fluid dynamics.

Physics II: Electricity and Magnetism.

Mathematical Analysis III: Sequences of functions, uniform convergence, series of functions, power series, Fourier series, generalized Riemann integral.

Mathematical Analysis IV: Functions of several variables, partial differentiation, directional derivative, local maximum and minimum, higher-order partial derivatives, exact differentials, implicit functions, inverse functions, line integrals, multiple integrals and their applications.

Algebra I: Natural numbers, integers, divisibility and factorization of integers, residue classes, Fermat's theorem, linear congruences, primitive roots.

Algebra II: Binary operations, groups, subgroups, cyclic groups, groups and cosets, normal subgroups, factor groups, homomorphism, isomorphism, groups of permutations.

Projective Geometry: Various geometries, construction of three-dimensional projective geometry, fundamental properties, cross-ratio, homography, involution, two and one-dimensional projective spaces.

Physics III: Optics

Differential Equations I: Basic definitions, existence and uniqueness of the solutions of the first-order differential equations, solution methods, existence theorems, some special higher-order equations, general linear differential equations, Euler equations.


Theory of Complex Functions I: Complex numbers, analytic functions, elementary functions, complex integration, local properties of analytic functions, the residue theorem and applications.

Theory of Complex Functions II: The power series representation of analytic functions, special functions, transformations.

Differential Geometry I: Calculus on Euclidean space, tangent vectors, directional derivatives, curves in $E^3$, 1-forms, differential forms, covariant derivatives, frame fields, connection forms, the structural equations.
Algebra III: Rings, integral domains, quotient rings and ideals, homomorphisms of rings, rings of polynomials, unique factorization domains, Euclidean domains, introduction to extension fields.

Numerical Analysis I: Sources of Numerical Errors, bases and representation of numbers, methods for finding fixed-points, numerical methods for finding roots of single-variable functions, order of convergence and methods to accelerate convergence, methods for solving systems of non-linear equations, roots of polynomials, approximation methods.

Numerical Analysis II: Direct methods in solving systems of linear equations, norms, error analysis and correction techniques, indirect methods for linear equations, numerical methods for finding eigen-values and eigen vectors.


Introduction to Probability: Permutations, combinations, experiment, sample space, events, probability axioms, conditional probability, independent events, Bayesian methods, random variables, distribution functions, expected value, variance and standard deviation, The Chebyshev Inequality, discrete and continuous probability distributions.


Probability: Joint distributions, joint density function, joint distribution function, two random variables, conditional distributions, variance, covariance, correlation, jointly distributed random variables, limit theorems.

Algebraic Geometry: Fundamental concepts, plane algebraic curves, closed subsets of affine spaces, rational functions, quasiprojective varieties, products and mappings of quasiprojective varieties, dimension.

Real Analysis: Lebesque measure, inner measure, outer measure and measurability, the Lebesque integral, convergence in measure, differentiation and integration, absolute continuity, classical Banach spaces; Hölder and Minkowski inequalities, the $L^p$ spaces.

Mathematical Statistics: Sample distributions, point estimates of parameters, sufficient statistical methods of point estimations, estimations by means of intervals, correlation and regression.
Functional Analysis: Sets, functions, sequences and inequalities, metric spaces, basic theorems, linear spaces, Banach spaces.

Computer Programming I: General information on computers, algorithms and flow charts, programming in BASIC.

Computer Programming II: FORTRAN programming with special emphasis on FORTRAN IV, WATFOR and FORTAN 77.

Applied Mathematics I: Selected topics in applied mathematics.

Applied Mathematics II: A selected topics in Applied Mathematics.
DEPARTMENT OF PHYSICS

Head of Department : Prof. Dr. Ömer Asım SAÇLI
Professors : Zikri ALTUN, Seyfettin FAKİOĞLU, Ülker ONBAŞLI,
Associate Professors : Emin ÖZBAŞ
Assistant Professors : Ali BAK R, Necdet ASLAN,
Gürcan ORALTAY, Şahin AKTAŞ
Instructors : Sibel TOKDEMİR, Mustafa ÖZDEMİR

Language of Instruction: Turkish

The Department of Physics offers a B.S. degree in Applied Physics. Emphasis is given to Basic Physics in the first two years. However, a wide variety of elective courses, mainly on applied subjects, are offered in the junior and senior years. The main purpose of the elective courses is to help students acquire certain skills so that they can be employed in industry. Those who would like to advance in physics can do so by choosing appropriate elective courses from Pure Physics.

The department also offers basic physics, as service courses, for various faculties such as Engineering, Medicine, Dentistry and Pharmacy as well as courses needed in the departments of Chemistry, Mathematics and Biology.

UNDERGRADUATE PROGRAM

Freshman Year

First Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>PHYS 131</td>
<td>Physics Laboratory I</td>
</tr>
<tr>
<td>PHYS 133</td>
<td>Basic Physics I</td>
</tr>
<tr>
<td>PHYS 155</td>
<td>Mathematical Methods in Phys. I</td>
</tr>
<tr>
<td></td>
<td>General Chemistry I</td>
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<tr>
<td></td>
<td>General Chemistry Lab. I</td>
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<tr>
<td></td>
<td>English for Physics I</td>
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<td>Turkish I</td>
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<td>Atatürk Principles</td>
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</tbody>
</table>

Second Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>PHYS 141</td>
<td>Physics Laboratory II</td>
</tr>
<tr>
<td>PHYS 145</td>
<td>Basic Physics II</td>
</tr>
<tr>
<td>PHYS 165</td>
<td>Mathematical Methods in Phys. II</td>
</tr>
<tr>
<td></td>
<td>General Chemistry II</td>
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<tr>
<td></td>
<td>General Chemistry Lab. II</td>
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<td></td>
<td>English For Physics II</td>
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<td>Turkish II</td>
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<td></td>
<td>Atatürk Principles</td>
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</tbody>
</table>
Sophomore Year

First Semester

- PHYS 231 Physics Laboratory III
- PHYS 235 Mechanics
- PHYS 254 Mathematical Methods in Phys III
- PHYS 234 Electronics I
- PHYS 232 Electronics Laboratory I
- PHYS 273 Computer Programming I
- English For Physics III

Second Semester

- PHYS 241 Physics Laboratory IV
- PHYS 245 Electricity and Magnetism
- PHYS 224 Mathematical Methods in Phys. IV
- PHYS 283 Computer Programming II
- PHYS 244 Electronics II
- PHYS 242 Electronics Laboratory II
- PHYS 243 Technical Drawing
- English For Physics IV

Junior Year

First Semester

- PHYS 331 Physics Laboratory V
- PHYS 335 Quantum Mechanics I
- PHYS 334 Electronics III
- PHYS 332 Electronics Lab. III
- PHYS 353 Numerical Analysis
- PHYS 373 Advanced Exper. Techniques in Phys.
- PHYS 375 Classical Mechanics
- PHYS 395 Introduction to Atmospheric Physics
- PHYS 397 General Relativity

Second Semester

- PHYS 341 Physics Laboratory VI
- PHYS 345 Statistical Mechanics
- PHYS 343 Structure and Prop. of Matter
- PHYS 323 Optics
- PHYS 344 Modern Physics
- PHYS 363 Quantum Mechanics II
- PHYS 383 Vacuum Technology
- PHYS 384 Advanced Programming
- PHYS 385 Plasma Physics
- PHYS Introduction to Air Pollut.
- PHYS 389 Fluid Mechanics

Senior Year

First Semester

- PHYS 412 Advanced Physics Laboratory
- PHYS 414 Solid State Physics I
- PHYS 432 New Developments in Physics I
- PHYS 434 Atomic Physics
- PHYS Energy I
- PHYS 473 Biophysics I
- PHYS 489 Applied X-Rays
- PHYS 413 Control and Meas. of Temperature
- PHYS 433 Electromagnetic Theory
- PHYS 493 Air Motion
- PHYS 495 Laser Physics
- PHYS 497 Superconductivity

Second Semester

- Advanced Physics Lab.
- PHYS 424 Solid State Physics II
- PHYS 442 New Developments in Phy. II
- PHYS 444 Nuclear Physics
- PHYS 443 Energy II
- PHYS 483 Biophysics II
- PHYS 423 Quality Control and Standardization
- PHYS 463 Semiconductor Device Technology
- PHYS 492 Group Theory
- PHYS 487 Elementary Particle Physics
- PHYS 489 Applied Superconductivity
- PHYS 485 Measurement in Atmosphere

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COURSE DESCRIPTIONS

Phys 131 Physics Lab. I: Determination of g, experiment with force board, experiment with inclined plane, air track, centrifugal force, moment of inertia, simple levers, Pulley systems.

Phys 131 Basic Physics I: Vectors, motion in one and two-dimensions, laws of motion, circular motion, work and energy and conservation of energy, linear motion and collision, rotation of rigid bodies, Torque and angular momentum. Oscillatory motion, laws of universal gravitation.


Phys 141 Physics Lab. II: Electronic instruments, mapping of electric fields, Ohm's law, change of resistance with temperature, determination of dielectric constant, determination of permeability, RC circuit, LC circuit.

Phys 145 Basic Physics II: Electric fields, Gauss's law, electric potential, capacitance and dielectrics, currents and resistance, direct currents, magnetic fields, Faraday's law and inductance, alternative current, fundamentals of modern physics.

Phys 165 Mathematical Methods in Physics II: Topics in analytical geometry, polar coordinates and parametric equations, spherical and cylindrical coordinates, vectors in space, dot and cross products, curl, curves, partial derivatives, multiple integrals and vector calculus.


Phys 273 Computer Programming I: Basic components of a computer systems, basic computer operations, programming languages, elementary data types, structure data types, subprograms and programmer-defined data types, sequence control, data control, storage management, syntax and translation, operating systems and programming environment, basic programming languages.

Phys 234 Electronics I: Voltage current and resistance, signals, capacitors and AC circuits, inductors and transformers, diodes and diode circuits, basic transistor circuits, amplifier blocks, feedback and operational amplifiers, op-amp circuits, com-
parators and Schmitt trigger, feedback, active filters and circuits, oscillators, power and heat design power supply circuits.

Phys 232 Electronics Lab I: Resistor, voltage suppliers, capacitors, RC circuits, inductors, differentiators, integrators, RC filtering, diodes.

Phys 245 Electricity and Magnetism: Electrostatics, divergence and curl of electrostatic fields, electric potential, work and energy in electrostatics, conductors, special techniques for calculating potentials, Laplace’s equation, multipole expansions, electrostatic fields in matter, magnetostatics, magnetostatic fields in matter, electrodynamics, electromagnetic waves.


Phys 283 Computer Programming II: Fortran 77 and Pascal, control statements, simple data types, arrays, subprograms, records, files, recursion, searching, pointer variables dynamic data structures, numerical solutions of problems using Fortran programs.

Phys 244 Electronics II: FET characteristics basic FET circuits, FET switches, amplifier noise, noise measurements, interference, basic logic concepts, TTL and CMOS, logic interfacing, A-D conversion, phase-locked loops.

Phys 242 Electronics Lab. II: Transistor circuits, basic op-amp circuits, logarithmic amplifier, comparators, Schmitt trigger, amplifiers, oscillators, DC-DC and AC-DC converters.

Phys 243 Technical Drawing: Drawing instruments and their use, lettering, geometrical constructions, sketching and sectioning, principle of dimensioning, tolerances and allowances on drawing.


Phys 335 Quantum Mechanics I: Blackbody radiation, Planck’s theory, photoelectric and Compton effects, Heisenberg’s uncertainty principle, atomic models, Franck’s-Hertz experiment, wave nature of particles, wave packets, Schrödinger wave equations, harmonic oscillator, momentum operators, spins and hydrogen atom.

Phys 334 Electronics III: Bus signals and interfacing, software system concept, data communication concepts, detailed look at 8085, microprocessor support chips, microprocessor system design, printed circuits, high-frequency amplifiers, advanced modulation methods, high speed switching, Bandwidth-narrowing techniques.
Phys 332 Electronics Lab. III: FET and MOFET characteristics, Op-Amp amplifiers, gate circuits, TTL and CMOS characteristics, flip-flops, registers, analog-digital conversion, memory, 6-channel event counter, S100 Bus.


Phys 373 Advanced Experimental Techniques in Physics: Various advanced measuring techniques in physics will be covered.

Phys 375 Classical Mechanics: Variational principle and Lagrange equations, the two body central force problems, the rigid body equations of motion, special relativity in classical mechanics, the Hamiltonian equations of motion, canonical transformation.

Phys 395 Introduction to Atmospheric Physics: Circulation of atmosphere and oceans; clouds and climate, pollution of the atmosphere; interaction of electromagnetic radiation with atmospheric particles and molecules.

Phys 397 General Relativity: Newton's gravitational theory, space-time structure, energy-momentum tensors, relativistic electrodynamics, field equations for gravitation, interaction of gravitation with matter, gravitational waves, space-time measurements, Riemannian geometry, mach's principle, Einstein's field equations, Schwarzschild solution, black holes, cosmology.

Phys 341 Physics Lab. VI: Index of refraction and dispersion, interference experiment, polarimetry, radiation laws.

Phys 345 Statistical Mechanics: Statistical description of systems of particles, statistical ensemble, basic postulates, probability calculations, thermal interaction, quasi-static processes, statistical thermodynamics, reversible and irreversible processes, thermal equilibrium, entropy, heat capacity and specific heat, extensive and intensive parameters, ideal gases, heat engine and refrigerators, calculation of mean values in a canonical ensemble, partition functions, equipartition theorem, paramagnetism, kinetic theory of gases.

Phys 343 Structure and Properties of Matter: Crystal structure, elastic behavior, imperfection in crystals, plastic deformation and fracture, metallography, phases in metal systems, phase diagrams, diffusion in metals, phase transformation, strengthening mechanism and processes, corrosion and oxidation, electronic structure and physical properties.

Phys 344 Modern Physics: Special theory of relativity, concepts of waves and particles, introductory quantum mechanics, atomic structures, structures and spectra.
of many electron atoms, structural properties of solids, band theory and its applications, elementary particles.

Phys 363 Quantum Mechanics II: Addition of angular momenta, identical particles, helium atom, time independent and time dependent perturbation theory, JWKB approximation, scattering theory, Dirac equation.

Phys 323 Optics: The nature of lights and the laws of geometrical optics, fiber optics, interference of light waves, diffraction and polarization.

Phys 383 Vacuum Technology: Areas of vacuum physics, classical kinetic theory, pressure, transport properties, viscosity, conductance, flow through a pipe, turbulence, molecule surface interactions, Knudsen regime, pumps, gas blasting, diffusion pumps, design considerations, choice of backing pumps, vacuum gauges.

Phys 384 Advanced Programming: Variable data types, operators, expressions, control flow, functions, pointers, arrays, structures, I/O operations, file management, UNIX systems interface, Unix operating systems.

Phys 385 Introduction to Air Pollution: Classification and measurement of atmospheric pollutants; regulatory requirements and control technology, application to urban problems, ozone depletion and global warming.


Phys 389 Fluid Mechanics: Basic fluid equations, Bernoulli's equation, Euler's equation, Navier-Stokes equations, elements of potential flow, flow in pipes and over surface, flows in open channel, viscous flows, compressible flows, shocks, numerical shock capturing schemes, two-dimensional gas dynamics, magnetohydrodynamic flows.

Phys 412 Advanced Physics Study: Students are required to design and construct advanced physics experiments or to work on a theoretical or computational project under the supervision of a teaching staff.

Phys 414 Solid State Physics I: Crystal structures and interatomic forces, X-Ray, neutron and electron diffraction in crystals, lattice vibrations, thermal, acoustic and optical properties, the free electron, metals energy bands in solids.

Phys 432 New Developments in Physics I: Students are required to prepare an essay and talk on the recent developments on a certain subject in physics. They are expected to survey and prepare a report on given topics under the supervision of a faculty member.
Pys 434 Atomic Physics: Interaction of electromagnetic radiation with matter, energy levels of atoms and radiation, Eigenstates of atoms and radiation, angular momentum, quantum mechanics of one and many electron atoms, polarization, decay, collision, perturbation, methods, central-field approximation, self-consistent field, Hartree-Fock theory and Thomas-Fermi model.

Phys 453 Energy I: Concept of energy, energy conservation, sources of energy, field-energy-force relationships, direct current electromechanical conversion, thermal-electrical conversions.

Phys 499 Applied X-Rays: Characteristic X-rays, absorption of X-rays, detection of X-rays, crystal geometry, diffraction, reflection, X-ray methods, phase diagramming techniques.

Phys 413 Control and Measurements of Temperature: Basic laws of thermodynamics, thermometric parameters, temperature tensors, various gas thermometers, metallic resistance thermometer, semiconductor resistance thermometer, carbon resistors, thermistor, thermocouples, magnetic thermometer, vapour pressure measurements, automatic temperature control.


Phys 493 Atmospheric Motions: Description of the behavior of the atmosphere; general circulation; meteorological analysis.


Phys 497 Superconductivity: Critical temperature, persistent current, thermoelectric properties, the meissner effect, critical field, specific heat, energy gap, the London equation, BCS theory, Ginzburg-Landau theory, Flux quantization, persistent currents, the Josephson effects.

Phys 424 Solid State Physics II: Theory of semiconductors, semiconducting devices, dielectrics and optical properties of solids, magnetism and magnetic resonance, superconductivity, topics in metallurgy and defects in solids, materials and solid state chemistry.

Phys 444 Nuclear Physics: The passage of radiation through matter, detection methods for nuclear radiations, particle accelerators, radioactive decay, the nucleus: elements of the nuclear structure and systematics, Alpha emission, Gamma emission, Beta decay. The two-body systems and nuclear forces, nuclear reactions, neutrons.
Phys 442  New Developments in Physics II: Students are required to survey given topics in physics under the supervision of a teaching staff. They are encouraged to make full use of the physics library.

Phys 443  Energy II: Energy conversions, thermionic conversion, fluid dynamic converters, fuel cells, nuclear-thermal conversion and nuclear energy, reactor theory, nuclear fission and fusion reactors and their control, other possible energy sources.

Phys 423  Quality Control and Standardization: Concept of quality, statistical concepts in quality control and standards, essentials of the preparation of standards, sampling, quality control, study of various national and international standards. (TSE, ISO, DIN,......etc.)

Phys 463  Semiconductor Device Technology: Semiconductor properties, semiconductor junctions and diodes, transistor fundamentals, impurity distributions, high-frequency properties of transistors, band structure of semiconductors, high-current densities and carrier transport, surface-field-effect transistors, composite junctions, microcircuits.

Phys 485  Measurement in the Atmosphere: Measurement techniques of atmospheric parameters, direct and remote sensing, data acquisition and analysis.

Phys 487  Elementary Particle Physics: Relativistic notation, Langrangians, currents and interactions, Gauge invariance, non-Abelian Gauge theories, Dirac equation, standard model, Quarks, Leptons, electroweak theory, quantum chromodynamics, Higgs mechanism. W and Z decays, Muon decay, accelerators, detectors, confinement, isospin invariance, heavy quarks, scattering and structure functions, tests of standard model, grand unification, supersymmetry, SO(n) and SU(n) groups, string theory.

Phys 489  Applied Superconductivity: Production of high magnetic fields, energy storage, measurements of very small signals, energy transportation, fast computer, levitation and fast trains.

Phys 473  Biophysics I: The place of biophysics in natural science, physics and biology, slope and methods of biophysics, work and energy, energy used in cell and organs, mechanochemical energy, cell biology, water and life, chemical foundation of biophysics, stereo chemistry, protein biosynthesis, replication of DNA, some methods of investigation of the structure of biopolymers, energy and the ecosystem, radioactivity, radiations, X-rays, the interaction of radiation with matter, radiation detectors, dosimetry of radiation.

Phys 483  Biophysics II: Biological effects of radiation, effects of radiation on simple chemical systems, some factors of modification on biological effect of radiation, oxygen effects, of radiation at the tissue level, effects of radiation on chromosomes, somatic effects, effects of radiation on liver and kidneys, advanced techniques used in biophysics, uptake and excretion of radioisotopes, activation analysis, special topics and application, ultrasonic technique.

Phys 142  **English for Physics II**: Review of Basic English, Definitions, Scientific Statements Referring; Experimental and Explanatory Descriptions. Further Work on Descriptions.

Phys 252  **English for Physics III**: Students are expected to read and understand scientific passages under supervision. Students are expected to enlarge scientific and technical vocabulary.

Phys 262  **English for Physics IV**: Students are required to read the latest scientific articles, to give seminars on selected subjects and write essays on certain items. All these activities are to be carried out under assigned supervisions.

Phys 492  **Group Theory**: Definition of Group, Group Table, Subgroup, Classes, normal or invariant subgroups, uniter representations, Schur lema, reducible and irreducible groups, orthogonality relations, regular representations, group products, rotational groups, group R3, direct product of relational groups Wigner-Eckert theorem.

Phys 231  **Physics Laboratory III**: Investigation of conservation laws, rotational motion experiments, experiment on rotatiny platforms, experiments with gyroscope.

Phys 241  **Physics Laboratory IV**: Design and operation of a magnet, measurement of magnetic susceptibility, transformers, electromagnetic induction.

Education courses are not listed among departmental courses. Those students interested in the subject may take additional courses from the Education Department of Atatürk Faculty of Education.
DEPARTMENT OF TURKISH LANGUAGE AND LITERATURE

Head of Department : Prof. Dr. Orhan BİLGİN
Professors : Emine GÜRSOY NASıKALı, İncı ENGİNÜN,
Metin AKAR
Associate Professors : Sema UĞURCAN
Assistant Professors : M. Nejat SEFERCİOĞLU, Ceval KAYA,
Sebahat DENİZ, Muhammet GÜR, Harun DUMAN,
Enver TÖRE, GÜlden SAGOL,
Instructors : Şehnaz ALİŞ

Language of Instruction: Turkish

The Department offers B.A. degree in Turkish Language and Literature. The degree program covers the history, criticism, and literary styles of Turkish language and literature, and is designed to provide the student with a firm and thorough understanding of the field. Integrated courses in Turkish, Eastern and Western Literature enable the students to have a wide range of knowledge in comparative literature. The program also covers courses in Ottoman Turkish, Turkic Languages, Russian and Persian.

UNDERGRADUATE PROGRAM

Freshman Year

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<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>Ottoman Turkish I</td>
<td>Ottoman Turkish II</td>
</tr>
<tr>
<td>Turkish Grammar I</td>
<td>Textual Studies I</td>
</tr>
<tr>
<td>Modern Turkish Literature</td>
<td>Turkish Grammar II</td>
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<tr>
<td>Literary movements in the West</td>
<td>Analysis</td>
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<tr>
<td>Turkish Folk Literature</td>
<td>Persian I</td>
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<tr>
<td>Old Turkish Literature</td>
<td>Sociology of Education</td>
</tr>
<tr>
<td>Introduction to Educational Sciences</td>
<td>Art / Russian</td>
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<tr>
<td>Art / Russian</td>
<td>Foreign Language</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>Atatürk Principles</td>
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</tbody>
</table>
### Sophomore Year

**First Semester**
- Ottoman Turkish III
- Persian II
- Old Turkish I (Orhun Turkish)
- Textual Studies II
- Old Anatolian Turkish
- Hist. of Modern Turkic Literature I
- Sociology of Development
- Atatürk Principles

**Second Semester**
- Old Turkish II
- Ottoman Turkish
- Hist. of Turkish Language
- Persian III
- Textual Studies II
- Hist. of Old Turkish Literature I
- Turkish Folk Literature I
- Psychology of Learning

### Junior Year

**First Semester**
- Hist. of Turkish Literature II
- Modern Turkic Languages I
- History of Turkish Language II
- Middle Turkish I
- Turkish Folk Literature II
- Novel Analysis
- Hist. of Modern Turkish Literature II
- Measurement and Evaluation

**Second Semester**
- Modern Turkic Languages II
- Middle Turkish II
- Hist. of Old Turkish Literature III
- Sources of Old Turkish Literature
- Poetical Analysis
- Hist. of Modern Turkish III
- Literature
- Guidance and Psychological Consultation

### Senior Year

**First Semester**
- Kipchak
- Textual Analysis II
- Hist. of Old Turkish Literature IV
- Turkish Folk Literature III
- Specimens of Western Literatures
- Hist. of Turkish Literary Criticism
- Principles and Methods of Education

**Second Semester**
- Çağatayca
- Hist. of old Turkish Literature V
- Turkish Folk Literature IV
- History of Turkish Drama
- Literature of Turkish Republic
- Educational Administration

### COURSE DESCRIPTIONS

**Literary Movements in the West:** General survey of Classicism, Romanticism, Realism and etc. with their influences on the Turkish writers.

**Studies in Western Literatures:** Reading from the major Western authors including Shakespeare, Balzac etc.
Textual Studies I: Reading and analysis of Tanzimat texts.

Textual Studies II: Reading and analysing poetry and short story.

Introduction to History of Modern Turkish Literature: (1895 up to present) Literary developments and new approaches in the late 19-20th centuries with references to their social background.


History of Turkish Literary Criticism: General view references to their Western examples and the old Turkish literature.


History of Modern Turkish Literature: History of 20th century literature; ideological concepts reflected in the literary works.

History of Turkish Drama: General view from Şinasi to present and reading from important and representative dramas.

Literature of Turkish Republic: General changes and new movements in literature, both poetry and prose.

Persian I - III: Persian grammar, elementary and advanced texts.

Old Turkic I - II: The linguistic analysis of the Kul Tegin and Bilge Khagan inscriptions and old Uighur texts.

Old Anatolian Turkish: The linguistic analysis of the Ottoman texts.

Middle Turkic I - II: The linguistic analysis of the Karakhamid & Khwareznion texts.

Kipchak: The linguistic analysis of the Northern middle Turkic texts.

Introduction Turkish Folk Literature: General information on Turkish Folk Literature.

Introduction to History of Turkish Literature: Meters, forms and literary devices.

Old Turkish Literature I: Meters, forms and literary devices.

Turkish Grammar I: The phonology of Turkish grammar in perspective.

Turkish Grammar II: The morphology and syntax.

Turkish Folk Lit. I - II - III: The forms of folk literature, epic poetry, minstrel poetry, dervish poetry.
3. FACULTY OF COMMUNICATION

Dean: Prof. Dr. Ateş VURAN
Assistant Deans: Prof. Dr. Ahmet L. ORKAN, Assoc. Prof. Semra ATILGAN

The Faculty of Communication aims to offer a firm grounding in various approaches to the study of communication and its methods drawn from both the humanities and the social sciences.

The Faculty includes the three departments of "Journalism", "Public Relations and Publicity", and "Radio-Television and Cinema". All the studies conducted in these three departments serve the purpose of developing the ability of the graduates to undertake roles in the fields of media and business life. In order to achieve this objective, the curriculum is designed to provide a basic knowledge of fundamental social sciences and concentrate on critical and theoretical works centering on broadcasting, journalism and public relations.

The graduates of the Faculty are employed as journalists, scriptwriters, producers, technicians, and administrators in broadcasting and film sectors, as well as in the press. Other career opportunities also exist in advertising, public relations, market research, and teaching.

The curriculum of the first year include common courses for the three departments; and there are few disparities with respect to the requirements of the departments, in the second year. The third and the fourth years are comprised of courses specialized on the subject matters of the respective departments.
The media, especially the electronic media are undergoing a transition in Turkey, and promise to be one of the key service sectors in the country. Being well aware of this fact, Marmara University's Faculty of Communications is determined to play a vital role in media education.
DEPARTMENT OF JOURNALISM

Head of Department : Prof. Dr. Ateş VURAN

Professors : Ahmet L. ORKAN, Uğur DAI, İhsan ÖZGEN
Associate Professors : Emin Doğan AYDIN, Filiz B. PELTEKOĞLU,
                      Yasemin O. İNCEOĞLU, Jale SARMAŞIK,
                      Semra ATILGAN
Instructors : İşik Fato BATUR, Özhan TİNGÖY,
              Kayahan GÜVEN, Ziya NEBİOĞLU, Kazım ALİŞ

Language of Instruction: Turkish

The Department of Journalism offers a program leading to a B.A. degree in Journalism. The department aims to produce graduates who are capable of analyzing and explaining the complex events of our times and who are able to combine this ability with journalistic skills. The program of the department includes courses on a wide range of subjects so that the students may gain a firm background, while also emphasizing on practical work and on computerized journalism.

The Department of Journalism is comprised of three different branches of specialization: "General Journalism", "Press Economy and Administration", and "Informatics". After a common curriculum in the first two years, the respective specialization branches offer different programs with respect to their special requirements.
## UNDERGRADUATE PROGRAM

### COURSES IN COMMON
(Freshman Year and Sophomore Year)

#### Freshman Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>Constitutional Law</td>
<td>Atatürk’s Principles II</td>
</tr>
<tr>
<td>History of Journalism</td>
<td>Data Processing</td>
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<tr>
<td>Atatürk’s Principles I</td>
<td>Behavioral Sciences</td>
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<tr>
<td>Behavioral Sciences</td>
<td>Basic Principles of Law</td>
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<tr>
<td>Introduction to Law</td>
<td>Political Science</td>
</tr>
<tr>
<td>Introduction to the Mass Communications</td>
<td>Turkish Language and its Rules of Writing</td>
</tr>
<tr>
<td>Political History</td>
<td>History of Turkish Arts</td>
</tr>
<tr>
<td>Turkish Language and its Rules of Writing</td>
<td>Foreign Language</td>
</tr>
<tr>
<td>Foreign Language (English, French or German)</td>
<td>Economics</td>
</tr>
<tr>
<td>Economics</td>
<td>Applied Statistics</td>
</tr>
<tr>
<td>Introduction to Statistics</td>
<td>History of Journalism</td>
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#### Sophomore Year

<table>
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<tr>
<th>Word Processing</th>
<th>Ethics</th>
</tr>
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<tbody>
<tr>
<td>Accounting</td>
<td>General Photography Techniques</td>
</tr>
<tr>
<td>Marketing</td>
<td>The Means of Mass Communication</td>
</tr>
<tr>
<td>History of Arts</td>
<td>Cost and Budgeting</td>
</tr>
<tr>
<td>Social Psychology</td>
<td>Desk Top Publishing</td>
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<tr>
<td>Turkish Economy</td>
<td>Technical Aspects of the Mass Media</td>
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<tr>
<td>History of Civilization</td>
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<tr>
<td>Foreign Language</td>
<td>International Economic Organizations</td>
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<tr>
<td>Mass Communication Law</td>
<td>Foreign Language</td>
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<tr>
<td>Creative Approaches to Communication</td>
<td>Mass Communication Law</td>
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</tbody>
</table>
Section of Press Economy and Administration*

Junior Year

First Semester

Basic Concepts of the Press Industry
Press Management and Administration
Contemporary Media Technology and Regulation
Contemporary Economic and Political Problems
Social Anthropology
International Communication I
Foreign Language
Communication Media
Business Organization and Management

Second Semester

Accounting in Press Management
Press Marketing
Printing Techniques
Data Banks
Contemporary Journalism
News Analysis Techniques
Research Methods in Social Sciences
International Communication II
Foreign Language

Senior Year

First Semester

Research Project
Environmental Problems
Copyrights and Intellectual Property
Advertisement Analysis
Management in Advertizing
Political Thoughts and Systems
Turkish Foreign Policy Techniques
Foreign Language
Culture and Communication

Second Semester

Research Project
Investigative Journalism
European Community and Turkey
Marketing of Printed Materials
Press Photography
Environmental Problems
Distribution and Organization
Graphical Design
Protocol and Social Behavior

* Course descriptions are on page 179.
## Section of Informatics*
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<tr>
<td>Hardware Systems</td>
<td>Contemporary Journalism</td>
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<tr>
<td>Concepts of Information Sciences</td>
<td>News analysis Techniques</td>
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<tr>
<td>Contemporary Media Technology and Regulation</td>
<td>Programming Languages</td>
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<tr>
<td>Social Anthropology</td>
<td>Systems Theory</td>
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<tr>
<td>International Communication</td>
<td>Research Methods in Social Sciences</td>
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<tr>
<td>Foreign Language</td>
<td>International Communication</td>
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<tr>
<td>Media in Communications</td>
<td>Foreign Language</td>
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<tr>
<td>Business Organization and Management</td>
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### Senior Year

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<td>Research Project</td>
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<td>Computer Aided Design</td>
<td>Investigative Journalism</td>
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<tr>
<td>Management of Information Systems</td>
<td>European Community and Turkey</td>
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<tr>
<td>Environmental Problems</td>
<td>Computer Assisted Media Applications</td>
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<tr>
<td>Screen Journalism and Videotext</td>
<td>Information Theory</td>
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<tr>
<td>Decision Support Systems</td>
<td>Environmental Problems</td>
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<td>Data Bases</td>
<td>Electronic Communication</td>
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<td>Foreign Language</td>
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<td>Networks</td>
<td>Simulation</td>
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<td>Culture and Communication</td>
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## Section of Journalism*
### Junior Year

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<td>Press Management and Administration</td>
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<td>Contemporary Media Technology and Regulation</td>
<td>Contemporary Journalism</td>
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<tr>
<td>Contemporary Economic and Political Problems</td>
<td>News Analysis Techniques</td>
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<td>Social Anthropology</td>
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<td>International Media Organizations</td>
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<td>International Communication</td>
<td>Foreign Language</td>
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<td>Essays and Composition Techniques</td>
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<td>Local Journalism</td>
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* Course descriptions are on page 179.
### First Semester
- Basic Principles of Journalism
- Foreign Language
- Media in Communication
- Specialized Beat Reporting

### Second Semester
- World Literature

### Senior Year

#### First Semester
- Research Project
- Environmental Problems
- Copyrights and Intellectual Property
- Social Policy
- Press Offences and Punishment
- Political Thoughts and Systems
- Turkish Foreign Policy
- Foreign Language
- Communication and Culture

#### Second Semester
- Research Techniques in Social Sciences
- Investigative Journalism
- European Community and Turkey
- Press Photography
- Environmental Problems
- Graphical Design
- Protocol and Social Behaviour
- Social Policy
- History of Sports and Sports Journalism
- Foreign Language
DEPARTMENT OF PUBLIC RELATIONS AND PUBLICITY

Head of Department : Prof. Dr. Fuat ÇELEBİOĞLU

Professors : Çevik URAZ, Taner KARAHASANOĞLU, Prof. Güner ÖZTUNA
Associate Professor : Hülya BAYKAL, Melda C. ŞİMŞEK, Aleaddin ASNA, Mahmut OKTAY
Assistant Professors : Necati ÇEVİRİR, Şengül ÖZERKAN, Tuğrul SAVAŞ
Instructors : Nejat ÇETİNOK

Language of Instruction: Turkish

The Department of Public Relations and Publicity offers a B.A. degree program. The department is built on the understanding that in today's society, public relations is employed by virtually every business, governmental agency, and nonprofit organization. Public Relations program, educates and trains students for careers in these organizations and for professional advancement to positions demanding supervisory and managerial responsibilities.

The Department of Public Relations and Publicity, executes its education in two branches of specialization: "Public Relations", and "Advertising and Publicity" The Department is sheduled to start two other programs on "Interpersonal Communications", and "Research Methods" in the 1994-1995 academic year.

Like in the other two departments, the courses of the first two years is common.
## Undergraduate Program

### Courses in Common

**Freshman Year**

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<td>Atatürk's Principles</td>
</tr>
<tr>
<td>History of Journalism</td>
<td>Data-Processing</td>
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<tr>
<td>Atatürk's Principles</td>
<td>Behavioral Sciences</td>
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<tr>
<td>History of Journalism</td>
<td>Basic Principles of Law</td>
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<td>Behavioral Sciences</td>
<td>Political Science</td>
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<tr>
<td>Basic Principles of Law</td>
<td>Turkish Language and Its Rules</td>
</tr>
<tr>
<td>Introduction to the Mass Communications</td>
<td>of Writing II</td>
</tr>
<tr>
<td>Political History</td>
<td>History of Turkish Arts</td>
</tr>
<tr>
<td>Turkish Language and its Rules of Writing I</td>
<td>Foreign Language</td>
</tr>
<tr>
<td>Foreign Language (English, French or German)</td>
<td>Economics</td>
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<tr>
<td>Economics</td>
<td>Applied Statistics</td>
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<td>Introduction to Statistics</td>
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**Sophomore Year**

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<thead>
<tr>
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<td>Basic Principles of Journalism</td>
<td>World Literature</td>
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<tr>
<td>Word Processing</td>
<td>Ethics</td>
</tr>
<tr>
<td>Accounting</td>
<td>General Photography Techniques</td>
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<tr>
<td>Marketing</td>
<td>Mass Media</td>
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<tr>
<td>Art History</td>
<td>Cost and Budgeting</td>
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<tr>
<td>Social Psychology</td>
<td>Desk-Top Publishing</td>
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<tr>
<td>Turkish Economy</td>
<td>Technical Knowledge About Mass Media</td>
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<tr>
<td>History of Civilization</td>
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<tr>
<td>Foreign Language</td>
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<tr>
<td>Mass Communication Law</td>
<td>Foreign Language</td>
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<tr>
<td>Creative Approaches to Communication</td>
<td>Mass Communication Law</td>
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</tbody>
</table>
Section of Public Relations*

Junior Year

First Semester
- Phonetic Diction
- Contemporary Media Technology and Regulation
- Contemporary Economic and Political Problems
- Introduction to Public Relations
- Basic Concepts of Advertising
- Social Anthropology
- Publicity Methods
- International Communication I
- Foreign Language
- Communication Media
- Business Organization and Administration

Second Semester
- Data Banks
- Contemporary Journalism
- News Analysis Techniques
- Basic Concepts of Public Relations
- Theories of Organizational Change
- Principles of Advertising
- Research Methods in Social Sciences
- International Communication II
- Foreign Language

Senior Year

First Semester
- Research Project
- Environmental Problems
- Case Studies in Public Relations
- Public Relations as Regards the Target Groups
- Advertisement Analysis
- Social Policy
- Turkish Foreign Policy
- Data Communication and Communication Techniques
- Foreign Language
- Culture and Communication

Second Semester
- Research Project
- European Community and Turkey
- Environmental Problems
- Graphical Design
- Public Opinion Polls
- Principles of Marketing
- Protocol and Social Behaviour
- Social Policy
- Foreign Language

* Course descriptions are on page 179.
### Section of Advertising and Publicity*

#### Junior Year

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<td>Printing Techniques</td>
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<tr>
<td>Contemporary Media Technology and Regulation</td>
<td>Effective Listening and Conversation</td>
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<tr>
<td>Promotion Techniques in Marketing</td>
<td>Media Strategy and Planning</td>
</tr>
<tr>
<td>Introduction to Public Relations</td>
<td>Organization and Management in Advertising Agencies</td>
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<tr>
<td>Basic Concepts of Advertising</td>
<td>Creative Work in Advertising</td>
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<tr>
<td>Social Anthropology</td>
<td>Media Utilization in Advertising</td>
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<tr>
<td>Publicity Methods</td>
<td>Research Methods in Social Sciences</td>
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<tr>
<td>International Communication</td>
<td>Consumer and Customer Behavior</td>
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<td>Foreign Language</td>
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<td>Communication Media</td>
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<td>Business Organization and Administration</td>
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<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>Research Project I</td>
<td>Research Project II</td>
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<td>Client Representation</td>
<td>European Community and Turkey</td>
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<td>Advertising Research</td>
<td>Press Advertising</td>
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<td>Graphical Design in Advertising</td>
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<tr>
<td>Strategy and Planning in Advertising</td>
<td>Protocol and Social Behavior</td>
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<tr>
<td>Production Techniques in Advertising</td>
<td>Advertisement Photography</td>
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<td>Social Responsibility in Advertising</td>
<td>Advertisement Writing</td>
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<tr>
<td>Data Communication and Communication Techniques</td>
<td>Publicity in Sales-point</td>
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<tr>
<td>Foreign Language</td>
<td>Television Advertising</td>
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<tr>
<td>Culture and Communication</td>
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* Course descriptions are on page 179
DEPARTMENT OF RADIO, TELEVISION AND CINEMA

Head of Department : Prof. Dr. Ünsal OSKAY

Associate Professors : Özden CANKAYA, Hatice ODABAŞI, Nurçay TÜRKOĞLU, Ahmet ŞAHİNKAYA
Assistant Professors : Şükran ESEN, Esra BİRYILDIZ, Vildan LORDOĞLU, Arsev HANİOĞLU, Ahmet ŞAHİNKAYA
Instructors : Atilla GİRİN, Neşe KIZIL, Gönül GÜNER, Tülay ERGİL

Language of Instruction: Turkish

The Department of Radio, Television and Cinema offers a B.A. degree program. The Department aims to enable the students to develop a critical understanding of film, radio and television. These media are studied in their historical development, as social and economic institutions; technologies and cultural forms. The students are donated with theories and practical information that would enable them to take their roles in this rapidly growing sector of mass media.

The Department of Radio, Television and Cinema carries on its program in one branch: "Radio and Television"; but preparing to initiate three other specialized branches of "Cinema", "Communication Sciences", and "Photography and Graphics", in the 1994-95 academic year.
UNDERGRADUATE PROGRAM
COURSES IN COMMON
(Freshman Year and Sophomore Year)

Freshman Year

First Semester

Constitutional Law
Atatürk’s Principles I
History of Journalism
Radio and TV From the Beginning up to Date
Introduction to Law
Introduction to the Mass Communications
Political History
Turkish Language and its Rules of Writing
Foreign Language (English, French or German)
Cinema

Second Semester

Atatürk’s Principles II
History of Journalism
Data-Processing
Basic Principles of Economics
Political Science
Graphical Design
Turkish Language and its Rules of Writing
History of Turkish Arts
Foreign Language
Turkish Literature
Sociology of Mass Communications

Sophomore Year

First Semester

The Art of Drama
Word Processing
Introduction to Radio Programming
Radio Writing
History of Arts
Basic Concepts of Cinema
Social Psychology
Turkish Political Life
History of Civilization
Foreign Language
Mass Communication Law

Second Semester

World Literature
Aesthetics
Ethics
General Photography Techniques
Technical Aspects of the Mass Media
Turkish Cinema
Administrative and Political Structure of Turkey
Television Programming
Hands on Course on Radio Programming
Foreign Language
Mass Communication Law
Junior Year

First Semester

Film Critics
Phonetic Diction
Contemporary Media Technology and Regulation
Contemporary Economic and Political Problems
Camera
Public Opinion
Mass Communication Theories
Public Education Through Broadcasting
Hands on Course on TV Production
Foreign Language

Second Semester

Data Banks
World Music History
Film Critics
Introduction to Film Production
Contemporary Turkish Literature
News Analysis Techniques
Mass Communication Theories
Radio and TV Newsmaking
Script Writing Techniques
Research Methods in Social Sciences
Foreign Language

Senior Year

First Semester

Research Project
Environmental Problems
Copyrights and Intellectual Property
Film Production
Radio and TV Presentation
Radio and TV Management
Political Thoughts and Systems
Production in Television
Turkish Foreign Policy
Data Communication and Communication Techniques
Foreign Language

Second Semester

Animation
Research Project
Environmental Problems
Film Production
Graphical Design
Newswriting in Radio and TV
Music Programs in Radio and TV
Writing in Advertising
Actual Newsmaking in TV
TV Production
Foreign Language

COURSE DESCRIPTIONS

Constitutional Law: Turkish constitutions through a historical perspective, with an emphasis on political regimes, citizens' rights, and relations between the state and the citizen.

Principles: History of the establishment of modern Turkey and the interpretation of Atatürk's tenets in the light of contemporary era.

History of Journalism: The development of the press industry in the world with a special emphasis on the Ottoman press, and modern Turkish press.
Behavioral Sciences: Comprehensive study of human and social behavior in society, as well as in the business environment.

Introduction to Law: An introduction to law and legal matters; and the basic concepts of law.

Introduction to Mass Communication: Focuses on nature, process and function of communication in human life and in modern society with reference to 19th and 20th centuries.

Political History: Study of milestones in political history from the French Revolution to World War I; with an emphasis on diplomatic history.

Turkish Language and its Rules of Writing: Grammar and correct spelling of the Turkish language.

Foreign Language: Comprehensive courses of English or French or German, with a view to prepare the students for their business requirements.

Economics: The subject, content and method of economics. Macro and micro economic approaches with emphasis on the subjects such as economic activity, price theory, national income, distribution theory, unemployment, monetary systems, and foreign trade theories.

Introduction to Statistics: An introductory course to statistics within the framework of problem and method analysis.

Data Processing: Introduction to computer science, computer programming, and the utilisation of computers in communication.

Political Sciences: Studies of political behavior in all its forms, through an analysis of notions such as power, authority, dissent and revolution.

Applied Statistics: Statistical applications, especially from the point of view of social research and opinion polls.

Word Processing: The usage of the keyboard of computers for fast and effective writing.

Accounting: Accounting in general terms.

Marketing: Marketing techniques in business.

History of Civilization: History of mankind and the development of intellectual, artistic, political, economic, and technological structures; and the relation of man with these structures, as well as with each other.
Ethics: Theory of ethics and ethical problems of the mass media.

Cost and Budgeting: Budgeting in organization.

International Economic Organizations: The mechanisms, procedures and functions of international organizations such as IMF, World Bank etc.

Social Anthropology: Basic theories of social anthropology; and related subjects.

International Communication: Social, political, economic, cultural, and legal matters concerning international communications.

Business Organization and Managements: Basic principles of business organization and administration.

Accounting in Press Management: Accounting techniques as regards the press organizations.

European Community and Turkey: History of the European Community and Turkey's involvement in it; and their past, present and future relations with each other.

Management in Advertising: Management techniques and methods in advertising agencies.

Data Communication and Communication Techniques: Communications through computers and access to data banks.

Distribution and Organization: Distribution and organization in business and mass media.

Marketing of Printed Materials: Marketing, promotion, sales concerning the printed materials.

Culture and Communication: The description of the forms of culture, and its relation with the concept and practice of communication.

Protocol and Social Behavior: A study of protocol behavior within a broader frame of social behavior and human relations.

Information Systems: The technology of equipment systems in informatics.

Mass Communication Theories: Analysis of the impact of mass media in the society, basically from the sociological perspective.

Research methods in Social Sciences: A comprehensive approach to the qualitative sociological research methods.
**Public Relations:** Historical development, elements and techniques of public relations. Applications of PR in local administrations, in industry and commercial establishments, and in public sector, with reference to target group identification and organization.

**Management in the Press:** Introduction to management and its techniques; types and specifications of press establishments; organization, financial and cost analysis, and personal management in the press.

**Local Journalism:** The historical roots of local journalism, its impact on democratic process and the economic and technical problems of local journalism.

**Specialized Beat Reporting:** Special kinds of journalism such as beat journalism, expertized journalism and investigative journalism through precise scientific methods.

**History of Sports and Sports Journalism:** Sports examined as a kind of entertainment and publicity; and the role of the press as a publicizing agent. Brief story of sports in Turkey and the world, and sports journalism as a profession.

**Basic Concepts of Public Relations:** Theoretical approach to public relations.

**Theories of Organizational Change:** Organizational behavior and change is analyzed through a theoretical examination.

**Principles of Advertising:** Advertising is studied step by step through its planning, writing, budgeting, production etc. phases.

**Basic Concepts of Advertising:** Basic elementary concepts of advertising is examined in order to illuminate the students about the conceptual issues of the profession, and the impact of advertising on persons and the society is studied.

**Case Studies in Public Relations:** Case studies from Turkey, Europe, and USA are scrutinized over, in order to better understand the methods, strategy, planning, and the execution of public relations.

**Public Relations as Regards the Target Groups:** Public Relations is examined from the point of view of the target groups, sampling, target group strategy etc.

**Public Opinion Polls:** Various opinion polls are examined and analyzed; and preparation and application of survey questionnaire are carried on.

**Effective Listening and Conversation:** Given that the best conversation depends on good listening, effective methods of conversation is taught in connection with effective listening.

**Media Strategy and Planning:** Media utilization and planning in PR and advertising.
Organization and Management in Advertising Agencies: The working procedure and methods of the advertising agencies from the organizational and managerial point of view.

Creative Work in Advertising: Production of logo, graphics and other creative design, in advertising.

Media Utilization in Advertising: The role of the media in publicizing the messages of advertising, and media preference according to the kind of the message.

Consumer and Customer Behavior: Behavior analysis of the customers and consumers is tried to be conducted; and effective methods of persuasion are discussed.

Clients' Representative: The skills needed for a client representative are examined.

Advertising Research: The methods of advertising research are taught in theory as well as in practical applications and case studies.

Press Advertising: Advertising methods in the written press are examined through examples from Turkey.

Graphical Design in Advertising: Graphical Design methods in advertising by using classical tools as well as computers.

Strategy and Planning in Advertising: Methods of advertising strategy and planning.

Production Techniques in Advertising: Advertising production for the press, cinema, radio and television.

Advertisement Photography: Photography techniques from the point of view of advertising.

Social Responsibility in Advertising: Issues of social responsibility and the formation of ethical rules in advertising business are discussed.

Writing in Advertising: Developing writing techniques and skills for advertising.

Publicity in Sales-points: Publicity methods in exhibitions, fairs etc.

Television Advertising: The basic principles of TV advertising by examining various case studies.

Film Critics: Film criticizing is examined through various examples of film critics, and critics-writing is developed by practice.
World Music History: Music as a form of arts is examined through a historical perspective.

Introduction to Film Production: Basic knowledge about film production techniques in theory and in practice.

Camera: A practical course in order to teach camera utilization.

Public Opinion: A conceptual and theoretical course that scrutinizes over public opinion formation, and the role of the mass media in it.

Script Writing Techniques: Writing techniques for cinema and television.

Animation: Animation techniques and production in theory and practice.

Radio and TV Presentation: Radio and TV presentation and announcement is studied and practiced in studio environment.

Radio and TV Management: Management methods in radio and TV organizations is studied in theory, with case studies.

Newswriting in Radio and TV: The basic principles of newswriting for radio and TV is taught by theoretical and practical studies.

Music Programs in Radio and TV: The utilization of music in radio-tv productions and music programs in the media are examined by case studies.

Actual Newsmaking in TV: A practical course basically experienced outside the classroom.

Mass Communication Theories: Analysis of the impact of mass media in the society basically from a sociological perspective.

Research Methods in Social Sciences: A comprehensive look at the quantitative and qualitative sociological research methods.

Social Psychology: Examination of social influence and leadership in groups and organizations, interpersonal interaction and communication skills.

Public Relations: Historic development, elements and techniques of public relations. Applications of public relations in local administrations, in industry and commercial establishments and in public sectors with a reference to target group identification and organization.

Management in Mass Media: Introduction to management and its techniques; types and specifications of press establishments; organization, financial and cost analysis and personnel management in the press.
Environmental Problems: Studies of environmental systems with relation to natural change and human population. Ecological relations between plants, animals and their environment.

Contemporary Economic and Political Problems: Gulf crisis, dissolution of the Socialist Block, nationalist movements in the world and the new world order.

Economics: The subject, content and method of economics. Micro-economic analysis in stress on fields such as economic activity, price theory, notion and types of market. Studies of national income, distribution theory, unemployment, monetary systems and foreign trade theories.

Newsgathering and Writing Methods: Basics of collecting news and presenting it in various contexts.

Desk-Top Publishing: Introduction to publishing via computers, publishing techniques and graphical design.


Copyrights and Intellectual Property: Rights, powers and responsibilities of the owner of an intellectual property.

Sociology: Understanding the problems of sociology which kept in pace with the developments in modern society since the 19th century.

General Photography Techniques: Introduction to photograph including studio and darkroom techniques.

History of Turkish Arts: Anatolian arts before and after Turks, Seljuks and Ottomans; and contemporary Turkish arts.

History of Arts: Study of notions like culture, arts, artist, critic etc. and the history of arts, artistic movements from prehistoric ages to present time.

Press Photography: The role and use of photograpy in journalism with emphasis to applications.

Public Finance: Introduction to public finance and its main issues such as public spending and income and public budgeting with an analysis of Turkish application.

Publishing Techniques: Introductory course concentrating on subjects like types of newspaper, circulation, journalism, freedom of the press, development in journalism, organisation of a newspaper and technical matters.
Television Production: Development of TV broadcasting, international TV broadcasters, administration in TV, production procedure in TV, and the roles of various units within that procedure.

Radio Production: Development of broadcasting, radio broadcasting technology, team-work in radio, and the steps of producing a radio program.

The Means of Mass Communication: Definition of a news agency, types of agencies, local, national and international agencies.

Promotion Techniques in Marketing: Principles of promotion and its role in public relations, the use of mass media for promotion.

Basic Concepts and Principles of the Press Industry: Past and present of press industry and basic techniques and equipment used in the press, with special emphasis on printing.

Social Policy: Functioning of social politics in relation to social and economic structure and examination of various political problems.

Research Project: Principles of conducting a research project such as choosing a subject, planning, literature survey, writing techniques and presentation.

Basic Principles of Journalism: A course dealing with issues such as freedom of press, auto-control, concentration, objectivity, public opinion, and problems of Turkish and world press.

Turkish Administrative and Political Structure: Introduction to main principles of Turkish public administration and elements of public administration in general.

Principles of Marketing: Analysis of factors of marketing and various stages of marketing procedure.

History of Political Thoughts and Systems: Examination of major philosophers and political systems from Athens on; and understanding the basics of modern political systems.

Television Journalism: Theoretical and practical approaches to collecting, writing and presenting TV news.

Public Education Through Broadcasting: Electronic media and the applications in Turkey and the world.

Turkish Foreign Policy: Developments and approaches in Turkish foreign policy from the end of World War II to present day.

Concepts of Information Sciences: Introduction to the logic of computers, computer programming.
Programming Language: Introduction to computer programming by BASIC language.

Systems Theory and Analysis: Analysis of systems approach and information systems in organizations.

New Media Technology Legislations: New media technologies and the emerging legal framework in accordance with the developments.

Sociology of Communication: Issues of content, representation, effects and ethics.

Contemporary Turkish Language and Literature: The grammar and phonetics of Turkish language and literature.

Investigative Journalism: In depth analysis of broadcast Journalism, especially for TV, concentrating on practice of research and reporting.

Statistical Research Methods: The application of statistics in social scientific research.

Contemporary Journalism: The main purpose of this course is to equip the students with modern journalistic information.

Radio and TV Newsmaking: The use of journalism skills in TV and radio for news and current affairs programs.

Introduction to Statistics: Introduction to basic statistical methods and quantitative analysis.

International Relations: The relations among the main actors of the international political scene.

International Economics: Analysis of the process of international economic relations, the interaction between national economies and concepts such as globalization and economic powers.

World Literature: General study of the world literature and writers in a historical perspective.

Basics of Radio and TV Production: Theoretical and practical examination of radio and TV production including the overview of the industry history and practices.

Hands on Course on TV Production: Provides a theoretical and practical introduction to the language aesthetics and techniques of film and TV production.

Film Production: An introduction to film production techniques using film and video cameras.
Camera Techniques: Techniques of using camera for TV and film production.

New Technologies in Radio and Television: Analysis of new broadcasting technologies such as satellite broadcasting, cable and HDTV.

Technical Aspects in Broadcasting: Survey of the changing technologies and media institutions; cable TV, satellites etc.

Technical Aspects in Broadcasting: Survey of the changing technologies and media institutions; cable TV, satellites etc.

Cinema: An introduction to major styles and theories of film and examination of the process of filmmaking.

History of Cinema: History of cinema, its development as an art, principles of cinematography and film forms.

Writing for Radio and Television: The course aims to examine the basics of writing for radio and TV, and to develop writing abilities of the students.

Advertisement Analysis: Analysis of basic advertising formats and research on impacts of advertising; advertising and popular culture; political advertising.

Advertisement Research: The social and economic aspects of advertising and its role in the society.

Writing for Advertising: Examines the creative aspects of the business with reference to copywriting.

Principles of Advertising: The history, nature, function and social and economic aspects of advertising and examination of advertising as a business.

Public Opinion Research: The forces that shape public opinion and propagate ideas; political and social implications of messages and economic and psychological aspects of public opinion.

Communication Methods in Public Relations: The use of communications and media in public relations.

Publicity Methods: Examination of publicity strategies, tactics and methods for business and campaigning.

Turkish Economy: Focus on the basic problems of the economic system in Turkey in its historical evolution.

Reading and Interpretation of Articles: The ways of approaching an article, its grammatical and intellectual content and evaluation of various types of articles.
News Analysis Techniques: In depth study of news media, both print and electronics, in order the students may develop their own ideas and critical values.

Data Banks: Introduction to the storage and reuse of data and its importance for communications.

Printing Techniques: Introduction to rotative printing techniques and its place in the publishing industry; and utilization of computer science in printing.

Graphical Design: Analysis of graphic images - color line, tone and shape-and their impact in visual communication.

Phonetic Diction: The theory and practice of conducting a speech.

Marketing in Press: The application of marketing techniques to the press industry.

Communication Media: The advent of the communication media and their utilization in newsmaking, advertising, public relations and political communication, in practical and theoretical terms.
4. FACULTY OF DENTISTRY

Dean : Prof. Dr. Nesrin EMEKLİ
Assistant Dean : Prof. Dr. Nejat ERVERDİ, Assoc. Prof. Serap AKYÜZ

The Marmara University Dental School, was established in 1965 and is situated in the old, historical part of the city. It has an annual intake of 80 undergraduates. It has long had a reputation for excellence at both undergraduate and postgraduate levels. As well as departments for each clinical area, the School has a Basic Sciences department full library and related discipline research facilities. Our Doctor of Dental Medicine program prepares students for patient-oriented dental care with emphasis on prevention and early detection of dental diseases. The school aims to produce graduates capable of advancing knowledge in the field of dentistry and also able to initiate and respond to developments in the field during their careers.

The Dental Medicine program consists of 5 years of didactic and clinical study with those graduating from it being given the title "Doctor of Dental Medicine". For the first three years the emphasis is on basic sciences. Students commence clinical practice at the beginning of the second semester of 3rd Year. In this program the student works exclusively in one department, moving onto the next after completion of a certain number of tasks.

The languages of instruction are English and Turkish.

The 46 academic staff for the year 1995 comprise 17 Professors, 10 Associate Professors and 8 Senior Lecturers And 5 Lecturers. In addition there are 39 Research Assistants serving as clinicians and instructors whilst performing postgraduate studies.
DEPARTMENT OF BASIC SCIENCES

Head of Department : Emekli, N.
Professors : Atasu, M.
Özhatay, E., Tiryaki, D.
Associate Professors : Arbak, S., Okar, I., Polat, O., Şimşek, Ş., Yarat, A.
Assistant Professors : Bayraktar, E, Kadir, T., Sezer, N.

DEPARTMENT OF OPERATIVE DENTISTRY,

Head of Department : Başaran B.
Professors : Atalay T., Günday M., Özbayrak S.
Associate Professors : Kartac, N
Assistant Professors : Genç, A., Topbaşı, B. Yanikoglu, F.

DEPARTMENT OF ORAL SURGERY

Head of Department : Güvener Ö.
Professors : Energin K.
Associate Professors : Başa, S., Toker, K., Gürsoy B.
Assistant Professors : Salih İ.M.

DEPARTMENT OF ORTHODONTICS

Head of Department : Erverdi N.
Associate Professors : Küçükkeleş N., Aras K.
Assistant Professors : Arun T., Biren S., Keleş, A.

DEPARTMENT OF PAEDODONTICS

Head of Department : Tanboğa, İ.
Professors : Oktay, C., Akyüz S.
Associate Professors : Düzdar L.
Assistant Professors : Menteş A.

DEPARTMENT OF PERIODONTOLOGY

Head of Department : Yılmaz S.
Associate Professors : Efeoğlu E.
Assistant Professors : Kuru B., Noyan Ü.
**DEPARTMENT OF PROSTHODONTICS**

**Head of Department** : Alkumru H.N., Ankan A., Bişkin T., Güvener S.  
**Associate Professor** : Kazazoğlu E.  
**Assistant Professors** : Gemalmaz D., Kulak Y., Serıtgöz A.

### First Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>Biostatistics*** I</td>
<td>Biostatistics II</td>
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<tr>
<td>Physics** I</td>
<td>Physics II</td>
</tr>
<tr>
<td>Medical Biology and Genetics I</td>
<td>Medical Biology and Genetics II</td>
</tr>
<tr>
<td>Organic Chemistry and Biochemistry I</td>
<td>Organic Chemistry and Biochemistry II</td>
</tr>
<tr>
<td>Psychology* I</td>
<td>Psychology II</td>
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<tr>
<td>Manipulation I</td>
<td>Manipulation II</td>
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<tr>
<td>Foreign Language I</td>
<td>Foreign Language II</td>
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<tr>
<td>Turkish I</td>
<td>Turkish II</td>
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<tr>
<td>Atatürk Principles I</td>
<td>Atatürk Principles II</td>
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### Second Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>Anatomy* I</td>
<td>Anatomy II</td>
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<tr>
<td>Histology* I</td>
<td>Histology II</td>
</tr>
<tr>
<td>Physiology* I</td>
<td>Physiology II</td>
</tr>
<tr>
<td>Microbiology and Parasitology* I</td>
<td>Microbiology and Parasitology II</td>
</tr>
<tr>
<td>Prosthodontics I</td>
<td>Prosthodontics II</td>
</tr>
<tr>
<td>Biophysics I</td>
<td>Biophysics II</td>
</tr>
<tr>
<td>Conservative</td>
<td>Conservative Dentistry II</td>
</tr>
<tr>
<td>Dentistry I</td>
<td>Medical English II</td>
</tr>
</tbody>
</table>
### Third Year

**First Semester**
- Pathology I
- Pharmacology I
- Dental Materials I
- Oral Surgery I
- Oral Diagnosis and Radiology I
- Orthodontics I
- Dental Anesthetics* I
- Periodontology I
- Conservative Dentistry and Endodontics I
- Prosthodontics III
- Clinical Biochemistry I
- Pedodontics I

**Second Semester**
- Pathology II
- Pharmacology II
- Dental Materials II
- Oral Surgery II
- Oral Diagnosis and Radiology II
- Orthodontics II
- Dental Anesthetics II
- Periodontology II
- Conservative Dentistry and Endodontics II
- Prosthodontics IV
- Clinical Biochemistry II
- Pedodontics II

### Fourth Year

**First Semester**
- Oral Surgery III
- Oral Diagnosis and Radiology II
- Orthodontics III
- Dental Anesthetics III
- Periodontology III
- Endodontics I
- Oral Surgery III
- Prosthetics I
- Internal Medicine and Hematology* I
- General Surgery*
- Pedodontics III

**Second Semester**
- Oral Surgery IV
- Oral Diagnosis and Radiology IV
- Orthodontics IV
- Dental Anesthetics IV
- Periodontology IV
- Endodontics II
- Oral Surgery IV
- Prosthetics II
- Internal Medicine and Hematology II
- Pedodontics IV
### Fifth Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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</thead>
<tbody>
<tr>
<td>Pedodontics V</td>
<td>Pedodontics VI</td>
</tr>
<tr>
<td>Oral Surgery V</td>
<td>Oral Surgery VI</td>
</tr>
<tr>
<td>Maxillofacial Prosthetics</td>
<td>Prosthodontics VI</td>
</tr>
<tr>
<td>Community Dental Health</td>
<td>Periodontology VI</td>
</tr>
<tr>
<td>Maxillofacial Surgery*</td>
<td>Conservative Dentistry IV</td>
</tr>
<tr>
<td>Ear, Nose and Throat*</td>
<td>Orthodontics VI</td>
</tr>
<tr>
<td>Psychiatry and Neurology*</td>
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<tr>
<td>Dermatology*</td>
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<td>Ophthalmology*</td>
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<td>Prosthodontics</td>
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<td>Implantology</td>
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<tr>
<td>Gnathology</td>
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<tr>
<td>Forensic Medicine*</td>
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<tr>
<td>History of Dentistry</td>
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<tr>
<td>Periodontology</td>
<td></td>
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<tr>
<td>Conservative Dentistry III</td>
<td></td>
</tr>
<tr>
<td>Orthodontics V</td>
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</tbody>
</table>

* This course is taken from Medical School's program.
** This course is taken from Biological Sciences' program.
*** This course is taken from Social Sciences' program.

### COURSE DESCRIPTIONS

A summary of courses provided by each department of the School is as follows:

**Basic Sciences:** Instruction is provided in Biochemistry, Pharmacology, Microbiology, Histology and Embriology, Anatomy, Biophysic, Pathology, Physiology, Molecular Biology and Genetics. It also coordinates instruction given by all other Medical and Technical Science departments. Besides conducting its own specific research on the chemical and biological properties of saliva, the structure of collagen and on the effects of drugs on experimentally induced diseases in animals, this department also works in collaboration with the clinical departments.

**Operative Dentistry, Endodontics and oral Diagnosis:** These departments provide courses which prepare students in the anatomy, embryology, histology and physiology of enamel, dentin and pulp, in the diagnosis of diseases of these tissues and periradicular tissues and in the identification and determination of aetiological factors responsible for caries, pulpal and periapical diseases. As well as giving basic courses in patient treatment, they provide clinical experience under the close supervision of experienced faculty staff.
Periodontology: Instruction in this department is on the normal function and pathogenesis of the periodontium and on the treatment and prevention of periodontal disease.

Paedodontics: Instruction stresses the importance of considering a child’s feelings, gaining his or her confidence and cooperation performing treatment in a kind and sympathetic manner and being concerned not only with the child’s current condition but also in ways of encouraging the child to practice good dental hygiene.

Prosthodontics: This department aims to train a dental practitioner competent to perform prosthodontic treatment. Intensive practical and theoretical instruction in prosthodontics is given every year. During the first two years students develop practical skills and learn prosthodontic fundamentals. In the last 3 years didactic instruction is therapy based. In 3rd Year they perform basic therapy under close supervision and complex therapy in 4th and 5th Year.

Oral Surgery: Instruction in this subject is given from 3rd until 5th Year. This involves the fundamentals of anaesthesia, oral surgery and oral medicine. The student conducts standard surgical procedures in the clinic.

Orthodontics: This department provides 3 years of instruction in basic practical orthodontics, partially in English and beginning in 3rd Year. In the first year, students are taught the skills required for constructing removable appliances and in the second, they are required to produce 20 models and 15 removable appliances for patients attending the clinic. In the third (senior) year, students are required to treat 5 simple cases requiring removable appliance therapy, under supervision.
5. FACULTY OF DIVINITY

Dean: Prof. Dr. İbrahim Kâfi DÖNMEZ
Assistant Deans: Prof. Dr. Fahrettin ATAR
                Assoc. Prof. Dr. Ali BARDAKOĞLU

The Faculty was founded in 1959 first as an Institute, then it was turned into a Faculty in 1982. It is located in a spacious location overlooking the Sea of Marmara.

There are three departments: "Principle Islamic Sciences", "Islamic History and Arts" and "Philosophy and Religious Sciences". However, these are administrative departments, and do not give individual diplomas.

The Faculty is composed of four-year courses, with one year preparation class which focuses on Arabic.

There are six main areas among which students have to make a choice in their second year. These are History of Islam, Sufism, Commentary of Qur'an, Hadith, Kalam and Islamic Philosophy, and Islamic Law. Accordingly, students, in addition to compulsory courses, are required to choose area elective courses, as well as unrestricted elective courses if they wish. Each student is allowed to have 36 hours credit weekly (or, 48 hours credit, when they wish to choose unrestricted elective courses). These area elective courses enable them to have a chance to specialize, in accordance with own desire and ability, on one of the above six main areas.

Associate Professors: M. Faruk BAYRAKTAR, Sadrettin GÜMÜŞ, Mustafa ÇAĞIRICI, Metin YURDAGÜR, Yakup ÇIÇEK, İsmail KARAÇAM, Celal YENİÇERI, Yusuf KILIÇ, Celal ERBAY, Yusuf Şevki YAVUZ, Mustafa ÖZ, Hasan Kamil YILMAZ, İrfan GÜNĐÜZ, Halis AYHAN, Vecdi AKYÜZ, Ahmet Turan ARSLAN, Mustafa USTA, Mahmut ÇAMİBİ, Ali Murat DARYAL, İsmail DURMUŞ, Mustafa UZUN, Hasan AKSOY, İsmail YİĞİT, M. Hüsrev SUBAŞI, Muhittin SERİN, Zeki ASLANTÜRK


# UNDERGRADUATE PROGRAM

## Freshman Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>Recitation of Qur'an I</td>
<td>Recitation of Qur'an II</td>
</tr>
<tr>
<td>History of Methodology of Commentary</td>
<td>Commentary of Qur'an I</td>
</tr>
<tr>
<td>History of Methodology of Hadith</td>
<td>Hadith I</td>
</tr>
<tr>
<td>Arabic I</td>
<td>Arabic II</td>
</tr>
<tr>
<td>Islamic Ethics</td>
<td>History of Islam II</td>
</tr>
<tr>
<td>Logic</td>
<td>History of I Turco-Islamic Arts</td>
</tr>
<tr>
<td>History of Islam</td>
<td>Turkish II</td>
</tr>
<tr>
<td>Turkish</td>
<td>Western Languages II</td>
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<tr>
<td>Western Languages I</td>
<td>Calligraphy II</td>
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<tr>
<td>Calligraphy I</td>
<td>Atatürk Principles</td>
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<td>Atatürk Principles</td>
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</table>

## Sophomore Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>Recitation of Qur'an III</td>
<td>Recitation of Qur'an IV</td>
</tr>
<tr>
<td>Commentary of Qur'an II</td>
<td>Commentary of Qur'an III</td>
</tr>
<tr>
<td>Hadith II</td>
<td>Hadith III</td>
</tr>
<tr>
<td>Arabic III</td>
<td>Kalam I</td>
</tr>
<tr>
<td>History of Islam III</td>
<td>Arabic IV</td>
</tr>
<tr>
<td>Calligraphy III</td>
<td>Calligraphy IV</td>
</tr>
</tbody>
</table>
Elective Courses

Arabic Language and Literature
Introduction to Sociology of Religion
Western Languages
Persian
Fiqh Texts
Modern Problems of Hadith
Current Relations among Religions
The Meth. of Hadith and its History
Calligraphy
Islamic Ethics
The History of Islamic Law
Contemporary Islamic World
Kalam
The Main Themes in Qor'an
Introduction to Psychology
Sirat al-Nabi and its Sources
Introduction to Sociology
Turkish Sufi Music

Arabic Language and Literature
Sufism
Western Languages
Persian
Fiqh Texts
Modern Problems of Hadith
Current Relations Among Religions
The Meth. of Hadith and its History
Calligraphy
Islamic Ethics
The History of Islamic Law
Contemporary Islamic World
Religion and Economy
The Main Themes in Qor'an
Paleography
Sirat al-Nabi and its Sources
The Methodology of Tafsir and its History
Turkish Sufi Music
Recitation of Qor'an
Modern Sufi Movements and their Problems

Junior Year

First Semester

Kalam III
Methodology of Islamic Law
Islamic Law I
Turco-Islamic Literature
Psychology of Education

Second Semester

Kalam III
Islamic Law II
History of Islamic Philosophy
Tatair
Turco-Islamic Literature
Elective Courses

Western Languages
Arabic Language and Literature
Rhetoric
Religion and State
Religion and Economy
Persian
Fiqh Texts
Current Philosophical Trends
Modern Problems of Hadith
Modern Religious Trends in Islamic World
Modern Sufi Movements and their Problems
The History of Sciences in Islam
Calligraphy
Hadith
History of Islam
Recitation of Qor’an
Sufism
Turkish Sufi Music
The History of Turkish Culture

Western Languages
Arabic Language and Literature
Rhetoric
Religion and State
Introduction to Psychology of Religion
Persian
Fiqh Texts
Current Philosophical Trends
The Methodology of Islamic Law
Modern Religious Trends in Islamic World
The History of Sciences in Islam
Calligraphy
Hadith
History of Islam
Recitation of Qor’an
Sufism
Turkish Sufi Music
The History of Turkish Culture

First Semester

History of Sufism
History of Religions
Religious Education
Method of Teaching of Religion and Ethics

Second Semester

Philosophy of Religion
Psychology of Religion
Sociology of Religion
History of Islamic Institutions
Elective Courses

Western Languages I  
Arabic Language and Literature I  
Persian I  
Modern Problems of Fiqh I  
Modern Problems of Kalam I  
Modern Problems of Tefsir I  
Hadith I  
Calligraphy I  
The History of Islamic Philosophy I  
Kalam I  
Comparative Islamic Law I  
Sufism I  
Turkish Sufi Music I  
The History of Turkish Culture I  
Muslim and Turkish Ethical Thinkers I  
Turco-Islamic Literature  
The History of Islamic Arts  
The Methodology of Islamic Law  
The History of Education in Islam

Western Languages II  
Arabic Language and Literature II  
Persian II  
Modern Problems of Fiqh II  
Modern Problems of Kalam II  
Modern Problems of Tefsir II  
Hadith II  
Calligraphy II  
The History of Islamic Philosophy II  
Kalam II  
Comparative Islamic Law II  
Sufism II  
Turkish Sufi Music II  
The History of Turkish Culture II  
Muslim and Turkish Ethical Thinkers II  
The History of Muslim Sects  
Human Relations and Spirit: Guidance  
Comparative History of Religions  
The Problems of Ethics

COURSE DESCRIPTIONS

Kalam (Kalam): Kalam I provides the aspects of theology in history, in addition to the subjects and aims of this science. Also analyzes the belief of early muslims, al-salaf and a text related to it.
The course of Kalam II includes the proof of the existence of God and his attributes, as well as faith in prophets, sacred books and angels.
Kalam III deals with the problem of life after death, the day of judgement, hell and paradise, destiny, takfir (excommunicate), etc.

History of Islamic Sects: It deals with the basic problems in the history of Islamic sects, in addition to first contraversies in Islam and their systemization, sources and terminologies. Also examines Khawarij, Shia, ahl al-sunna, mütekellimin (muslim theologians) and al-salaf and mu'tazila, and analyzes related texts.

History and Methodology of Hadith: It aims to provide the stages of development in history. Examines the life of ravi (narrator of hadith) and muhaddith (scholars of hadith), in addition to getting students acquainted with the sources.

Hadith: Hadith I helps students to be familiar with this important source of Islamic creed.

Hadith II assesses the impact of hadith upon human relations in the society.

Hadith III investigates the impact of hadith, upon the development of personalities of muslims.
Arabic: This course aims to give basic information on syntax and etymology of Arabic language and to make practice of these on both classical and modern texts, in addition to translation techniques from Arabic.

Western Languages (either French or English or German): Practicing grammar rules of these languages on texts, as well as conversation practices.

Recitation of Qor’an: This course stresses, both in theory and practice, on original pronunciation and recitation of Qor’an in accordance with authentic rules.

Commentary of Qor’an: Examining the meaning and principles of Qor’an, while trying to disclose the intention of divine revelations as much as possible.

History of Methodology of Commentary: Providing the stages of development of methodology of commentary in history.

Methodology of Islamic Law: Examines the sources of Islamic law and methodology of exertion of a judgement from them. Getting students acquainted with the terminology and principles, in addition to a general survey on independent judgement activities.

Islamic Law: Islamic Law I consists of a general introduction to law and Islamic law, history of Islamic law, personal status and family law in Islamic Law, in addition to constitutional and criminal law in general. Islamic Law II offers law of obligations, as well as law of procedure.

History of Sufism: It provides the emergence of Sufism as a discipline and its contributions to Islamic thinking and culture. A general survey of predominant Sufis and tariqats throughout Islamic history.

Turco-Islamic Literature: Examines selected texts of writers, poets from the earliest times. Designed to help students to enjoy the literature.

History of Turco-Islamic Arts: Exploring architecture, calligraphy, illumination, marbled, traditional book binding methods, tile, music in past and today.

Calligraphy: This course provides the history of calligraphy along with the varieties of it, and helps students to improve their handwriting in Arabic, as well as encouraging those interested in calligraphy to take more steps in upper terms.

Religious Education: Designed to help students to prepare themselves for the life after graduation and tries to equip students with teachings of Islam and its tradition. Also provides historical development of religious education, its principles and psychological basis.

Methods of Teaching of Religion and Ethics: Aims to improve the religious education in high schools by giving the methods of teaching of religious principles. This seminar is rather based on practice.
History of Islam: Providing the history of Islamic people and states from the time of the prophet, with the special attention paid to the contributions of Turks to Islamic civilization.

History of Islamic Institutions: Studies on political, military, economic, cultural and educational institutions, such as caliphate, madrasa, trusts, etc., from the beginning up to the end of the Ottoman Empire.

History of Ancient Philosophy: Offering the emergence and development of ancient philosophy and considering its problems.

Islamic Ethics: Examining the ethical terms in Qor'an and hadith, as well as problems in Islamic ethics and offering comparative study with contemporary philosophy of ethics.

Logic: Providing the nature of logic, the concept of logic in Greeks and muslims. Handling the critics on Aristotile logic and modern logic. Examining the sources.

Psychology of Religion: Studying the impact of religion upon the conscious of men, examining the method and scope of psychology of religion, and studying on men, conscious and his behavior from religion point of view, in addition to religious feelings and its relations with society.

Sociology of Religion: Examining the religious life through objective, methodical and typological ways. Studying the religion from a sociology point of view.

Philosophy of Religion: Criticizing belief in God and religions from philosophical point of view, and comparing religious thought with other disciplines of thought.

History of Religions: Methodology and characteristics of history of religions, and its history of development. Includes basic characteristics of Judaism and Christianity from their own sources, and gives a comparative study of them with Islam.

History of Islamic Philosophy: Provides the emergence and development of Islamic philosophy after the transformation of Hellenistic philosophy to Islamic world, and its relations with other sciences and impact upon them.
6. FACULTY OF ECONOMICS AND ADMINISTRATIVE SCIENCES

Dean: Prof. Dr. Ahmet Hayri DURMUŞ
Assistant Deans: Prof. Dr. Selahattin GÜRİŞ
Prof. Dr. Turgay BERKSOY

The first attempt at founding the faculty was made by Suphi Paşa, the Minister of Commerce and the school was opened in 16 January 1883 by Tahir Paşa, the Minister of Education. Its name was "Hamidiye Institution of Higher Education of Commerce". The fact that practical and theoretical courses were offered simultaneously, increased the reputation of the school. The specialization in courses started in 1915.

In the early years of the Turkish Republic, the school was attached to the Ministry of Economy during the academic year 1923-1924. From then on, both male and female students have been taking courses together. The school was the leading institution that passed to this way of education in 1924.

After being renamed as "The Institution of Higher Education of Economics and Commerce", in 1924 it was attached to the Ministry of Education.

The school was again renamed as "The Academy of Economics and Commercial Sciences" in 1959 by the Law of Academies.

With its four leading departments (Economics, Business Administration, Political Sciences, Commercial Sciences), the Academy founded during the
academic year 1977-1978, formed the nucleus of Marmara University which became legally was established in 1982.

The Faculty of Economic and Administrative Sciences, as its name indicates, has the aim to educate the students in the domains of economics and administrative sciences in order to make them useful for the society and to increase their level of knowledge and skills.

The training programs of the faculty are prepared in the light of the principle to help the students to specify in a diversity of subjects. Special attention is paid to the program because the social sciences have a large coverage.

Departments

Presently the faculty has ten departments.

In the newly formed departments of Business Administration, Economics and International Relations the language of instruction is in English. The language or instruction in the Department of Public Administration is in French. The faculty also has two departments where the language of instruction is in German: the departments of Business Administration and Informatique.

The Faculty of Economic and Administrative Sciences is the largest faculty or Marmara University. It is spread to five different campuses across Istanbul: The Bahçelievler campus houses 4 departments where the teaching language is in Turkish: Departments of Business Administration, Public Finance, Econometrics and Economics. The Göztepe Campus has the three departments where the language of instruction is in English: Business, Economics and International Relations. The Department of Labor Economics and Industrial Relations where the teaching language is in Turkish and the Departments of Business and Informatique where the teaching language is in German are situated at the Anadolu Hisari Campus. Finally, The Department of Public Administration with the language or instruction in French is situated at the Tarabya Campus.

Thus, the Faculty of Economic and Administrative Sciences has not only historically formed the core of which Marmara University in its present form has spread and grown, but it also constitutes a dynamic and multi-purpose educational unit which embodies different departments where the medium of instruction is in English, French and German as well as departments where instruction is in Turkish.

Department of Economics: The main purpose of the program is to teach the efficient utilization of scarce resources at micro and macro levels. Students take "required courses" like economic theory, economic history, economic policy, economic development, international economics, labor
economics, statistics, etc. They have also some "elective courses" like planning, public finance, econometrics, etc.

**Department of Business Administration:** The program is basically based on economics, commercial law, public finance, management science and quantitative methods. Students can take "elective courses" in related social sciences. Specialization is possible in four major areas: management, accounting, business finance and marketing.

**Department of Public Finance:** The core of the program consists of accounting and financial law. Graduates are employed both in public (Ministry of Finance, Government Accounting Bureau, etc.) and private sectors as financial advisors.

**Department of Labor Economics and Industrial Relations:** The department has a program based on labor law, labor economics and law of social security. Graduates have opportunities to be employed in "personal management" departments of public and private institutions.

**Department of Econometrics:** Main courses are economic theory, applied economics, statistics, mathematics and computer programming. Graduates are employed especially in the economic research departments of a variety of institutions.

**Departments of Economics and Business Administration** where the language of instruction is English, have programs similar to those of the departments where Turkish is the language of instruction.

**Department of International Relations:** Here instruction is in English. Foreign policy, international relations, political theory, international law and political history are some topics selected from the program. Graduates are employed in the Ministry of Foreign Affairs, in other Ministries' foreign services or in the departments of foreign economic relations of corporations.

**Department of Public Administration:** The language of instruction is French. Students take courses in the domains of political sciences, public law, urbanization, international relations and management science. They obtain a general formation necessary for them to become public administrators.

**Department of Business Administration** where the language of instruction is German, has the main purpose to lead the methods concerned with business, to provide a general level of knowledge and to orient students towards becoming experts in respective fields.

**Department of Informatique** where the language of instruction is German, has a program containing issues related to business administration. Systems of information supported by computers, their techniques and methods are the principal subjects.
DEPARTMENT OF BUSINESS ADMINISTRATION

Head of Department: Prof. Dr. Tunç EREM

Associate Professors: İbrahim ANIL, İnci ARTAN, Ayşe Nur BERZEK, Emre BURÇKİN, Nevin DENİZ, Sahavet GÜRDAL, Canan Çetin GÜRER, Mina ÖZVEREN, Uğur YOZGAT, Ali Haydar AKSOY, Necdet ŞENSOY, Gülümser ÜNKAYA

Assistant Professors: M. Emin ARAT, Doğan ARGUN, Cemal IBİŞ, Esin CAN, Binali DOĞAN, Mehmet ERSOY, Nuran Cömert DOYRANGÖL, Gürel KONURALP, Mehmet ÖZKAN, Ayşe SUMER, Özlören EKMEKÇİOĞLU, Aykut TOP, Mustafa İME, Oyguır YAMAK, Ekrem YAVUZ, Ümit GÖKDENİZ, Nejat BOZKURT, Göksal Ataman UNUTKAN

Instructors: Ali İhsan BAŞOL, Sabri ERDİL, Gürbüz GÖKÇEN, Bekir AROMA, Bülent MENGÜÇ, Bahattin RÜZGAR, Aypar USLU

Language of Instruction: Turkish

The Department of Business Administration offers a B.A. program aiming at teaching students the fundamentals of Business Administration. In this context, compulsory courses of the divisions are offered. All courses are offered in Turkish, however, the students are encouraged to take elective courses which consist of one of the foreign languages of English, German and French. In addition, MBA and PhD programs are available to students under the direction of the Social Sciences Institute of Marmara University.
# UNDERGRADUATE PROGRAM

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<td>Principles of Accounting I</td>
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<td>Fundamental Concepts of Law</td>
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Senior Year

For those specializing in Accounting and Finance

First Semester
- Management Accounting
- Financial Statements' Analysis
- International Finance
- Turkish Tax System
- Investment Management
- Politics of Business Administration
- Social Security Law
- Accounting Systems & Organization I
- Accounting of Associations
- Accounting of Cooperative Administration

Second Semester
- Auditing of Accounting
- Accounting Systems & Organization II
- International Trade Operations
- Decision Making Techniques in Management
- Capital Markets
- Accounting of Tourism Administration
- Computer Aided Accounting
- Accounting-Law Relationships

Senior Year

For those specializing in Marketing and International Management

First Semester
- Sales Management
- Logistics
- International Marketing
- Investment Management
- Marketing Research I
- Business Policy
- Social Security Law
- Turkish Tax System
- Export Management I

Second Semester
- Operations Research
- Marketing Research II
- Export Management II
- Decision Making Techniques in Management
- Capital Markets
- Marketing Economics
- Advertising Management

Senior Year

For those specializing in Management

First Semester
- Turkish Tax Systems
- Investment Management
- Str. Man. and Business Policy
- Social Security
- Small Firms and Entrepreneurship
- Organizational Culture
- Organizational Behavior
- Industrial Relations
- Philosophy of Management

Second Semester
- Capital Market
- Decision Making in Management
- Managerial Accounting
- Multi national Companies
- Organizational Theories and Principles
- Labor Power
- Planning and Control
- Firm and Society
- Managerial Economics
COURSE DESCRIPTIONS

Mathematics: Topics such as linear algebra, differential equations, integration, limits, functions are offered in connection with business and economics.

Introduction to Economics: An introductory course in economics that deals with subjects such as the calculation of gross national product, national income, supply and demand curves and analysis.

Behavioral Sciences: The course includes motives, attitudes, perception and learning principles of individuals both in formal and informal groups, and also group dynamics, leadership, cooperation between individuals in an organization.

Principles of Accounting: An introductory course in accounting that deals with subjects such as fundamental principles and concepts of accounting, the recording methods of assets, and other aspects of book-keeping.

Fundamental Concepts of Law: A course in law that introduces the philosophy of law, the Turkish law System and how to interpret each part of the system.

Law of Constitution: The objective of this course is to introduce the students to the Turkish Constitution and to point out the differences between the 1961 and 1982 Constitutions of Turkey.

Introduction to Business Administration: The objective of this course is to introduce business principles, company types and functions of business administration such as management, marketing, finance, personnel administration, production, etc., to the students.

Commercial and Financial Mathematics: This course deals with mathematical methods which are used in trade and business such as the calculation of interest rates, discount rates, current accounts, etc.

Turkish: The objective of this course is to develop the grammar skills of students in Turkish Language.

Inventory and Balancing: In this course, end of the term records and details about these records are taught.

Principles of Management: The purpose of this course is to teach the historical background of management and the connection of traditional and scientific management and also to analyze the functions of management which are planning, organization, directing, coordinating, auditing, decision making, management, developing, etc.

Statistics: In this course, statistical techniques such as regression, correlation and probability are taught.
Computer Programming: In this course, MS-DOS operations system and Basic programming language is taught.

Microeconomics: An introductory course in micro economics that deals with subjects such as the calculation of income and cost curves, the balance of supply and demand curves and consumption models.

Law of Obligations: In this course, basic principles of contracts are taught.

Macro Economics: In this course, subjects such as inflation, gross national product, growth rate, national income, balance of international trade volume are taught.

Public Finance: The aim of this course is to introduce students to the public sector and to teach them the role of the government in economy. Subjects such as incomes and investments of the government, public expenditures and the role of the Central Bank in the Turkish economy are also taught.

Principles of Marketing: An introductory course in marketing that deals with subjects such as the basic concepts in marketing, marketing mix, selection of markets, consumer behavior, product, price, promotion, distribution policies, marketing research, international marketing, etc.

Production Management: In this course, the description of production systems, work analysis (work design and measurement, work sampling) and production planning and control procedures with some very useful models such as decision models, linear programming, CPM/PERT and inventory Models are taught.

Finance: In this course topics such as cash flow, evaluation of investment projects, financial ratios, etc., are taught.

Commercial Law I: In this course an introduction to commercial law is made and the law of companies is taught.

Commercial Law II: In this course, commercial papers such as bill of exchange, promissory note and check, etc. are taught.

Cost Accounting: In this course, the cost calculation methods used in firms are taught.

Banking: In this course the Turkish banking system and the functions of the Central Bank of Turkey are examined.

Personnel Management and Industrial Relations: In this course topics such as recruiting and staffing, orientation and education, job evaluation, personnel evaluation, compensation, motivation of personnel in the organization, also industrial relations and discipline are taught. The course is directed both with lectures and case studies.
Labor Law: In this course, the relations between employees and employers and unions are taught.

Tax Law: The aim of this course is to teach students about topics such as public tax, income tax, value added taxes, etc.

Management Accounting: In this course, accounting is taught in the light of management.

Financial Statement Analysis: In this course financial statements are analyzed and interpreted.

International Finance: In this course, topics such as currency rates, swap operations, international monetary policies, international commodity market operations, etc. are taught.

Turkish Tax System: In this course, the Turkish tax system is analyzed and interpreted.

Investment Management: In this course, the evaluation of investment projects, technology transfer, licencing and know-how, etc., are taught.

Business Policy: In this course, topics such as environmental analysis, mission of a firm, objectives of a firm, situation analysis, portfolio analysis, etc. are offered.

Social Security Law: In this course, topics such as common rights and unions are taught.

Auditing of Accounting: In this course, topics such as the auditing of financial statements (internal or external), auditing methods and standards are taught.

Decision Making Techniques in Management: In this course, the decision making techniques in management are examined.

Capital Markets: In this course, the mediators which take place in capital markets are examined. In addition, prediction of stock dividends and bond interests are taught.

Computer Aided Accounting: In this course, topics of accounting are taught using computer programs.

Operations Research: In this course, types of models, modeling aspects of mathematical programming and methods for solving various models such as linear programming, integer programming, queuing systems and finally simulation are taught.

Sales Management: In this course, topics such as organization for sales, sales analysis, job descriptions of sales persons, etc., are taught.
Logistics: In this course, the distribution channels in marketing and physical distribution are taught.

International Marketing: The aim of this course is to teach students the strategies of international marketing. Selection of foreign markets, product development/modification for foreign markets, etc., are taught. In addition, discussions about case studies in international marketing are made.

Marketing Research: In this course, topics such as marketing research environments, sampling theory, data processing and analysis, applications and report preparation are taught.

Export Management: In this course, topics such as methods of payment, export market selection and exports strategies are taught.

Marketing Economics: In this course, the role of marketing in social disciplines, function of marketing in economy, the conceptual structure of marketing functions, determinants of distribution channels and development of macro economics are taught.

Advertising Management: In this course, topics such as determinants of advertising campaign planning, the media selection process, the relationship between advertising and public relations, etc., are taught.
DEPARTMENT OF BUSINESS ADMINISTRATION
(English Medium)

Head of Department : Prof. Dr. Ahmet SERPİL
Professors : Erhan ADAL, Doğan ALTUNER,
Ahmet Hayri DURMUŞ, Eyüp İLYASOĞLU,
Tuncay KOCAMAZ, Mehtap KÖKTÜRKM,
Sait SEVGENER, Suna TEVRUZ,
Ateş VURAN, Nail BERZEK
Associate Professors : Ali Osman GÜRBÜZ, Lale DURUİZ,
Rauf NİŞEL, Sedefhan OĞUZ,
Handan Kepir SİNANGİL, Abdulgafhar AĞAOĞLU,
Tülay BOZKURT, Jülide GEMİÇİOĞLU
Assistant Professors : Bülent AYYILDIZ, Zeynep BİLGİN,
Varol GÜNYAŞAR, Şule ÖZMEN,
Jale SÖZER, Yonca KARAPAZAR
Instructors : Dr. Gökşan ERDOĞAN Dr. Ahmet SARYPENER,
Cent YURDAKUL, Türkân ÖNDER

Language of Instruction: English

The English medium Department of Business Administration offers an undergraduate program leading to a Bachelor’s Degree in Business Administration. Students are expected to get at least 18 credits each semester adding up to 144 credits minimum for graduation at the end of the 8th semester. Students are expected to take obligatory and optional courses from the department and the neighboring English medium Economics and International Relations departments. At the beginning of the third year, students choose one of the four specialization options available, namely, Management, Finance Accounting, Marketing or Production.
# UNDERGRADUATE PROGRAM

## Freshman Year

### First Semester
- ECO 101  Introduction to Economics I
- BUS 171  Introduction to Law
- BUS 181  Methodology of Social Sciences
- BUS 191  Calculus I
- BUS 193  Introduction to Computers I
  - Unrestricted Elective
  - Turkish I
  - Atatürk Principles I

### Second Semester
- ECO 102  Introduction to Economics II
- BUS 172  Law of Obligations
- BUS 192  Calculus II
- BUS 194  Introduction to Computers II
  - Area a Elective
  - Unrestricted Elective
  - Turkish II
  - Atatürk Principles II

## Sophomore Year

### First Semester
- BUS 211  Introduction to Business
- BUS 241  Introduction to Accounting I
- BUS 271  Legal Framework of Business
- BUS 281  Statistics I
  - Unrestricted Elective
  - Unrestricted Elective

### Second Semester
- BUS 212  Business Management
- BUS 242  Introduction to Accounting II
- BUS 282  Statistics II
  - Area Elective
  - Unrestricted Elective
  - Unrestricted Elective

## Junior Year

### First Semester
- BUS 331  Business Finance I
- BUS 341  Cost Accounting
- BUS 351  Marketing I
- BUS 361  Operations Management I
  - Specialization Elective
  - Unrestricted Elective

### Second Semester
- BUS 312  Personnel Management
- BUS 332  Business Finance II
- BUS 352  Marketing II
- BUS 342  Managerial Accounting
  - Specialization Elective
  - Unrestricted Elective

## Senior Year

### First Semester
- BUS 441  Business Policy I
  - Specialization Elective
  - Specialization Elective
  - Specialization Elective
  - Area Elective
  - Unrestricted Elective

### Second Semester
- BUS 412  Business Policy II
  - Specialization Elective
  - Specialization Elective
  - Specialization Elective
  - Area Elective
  - Unrestricted Elective
BUS 342 Managerial Accounting: Cost-Volume-Profit relationships, Master Budget, Flexible Budgets, Standard Costing and variance analysis.

BUS 171 Introduction to Law: Sources of Turkish law, the concept of system of law, the Turkish legal system, scope of the civil code, law of persons, family law, law of inheritance, law of property.

BUS 172 Law of Obligations: Sources of obligations, definition of obligations, Turkish law of obligations, obligations deriving from contracts, obligations deriving from illegal acts, obligations deriving from unjustifiable enrichment.

BUS 181 Methodology of Social Sciences: Ways of knowing, scientific method; its characteristics and uses in business settings; correlational methods, relationships between variables, strength of a relationship, various correlational techniques; measurement of behavior; sampling techniques; experimental method; experimental designs; generalizing results; ethical issues.

BUS 182 Applied Research: The class offers an exercise in doing actual research in the field, students are required to start from the beginning, develop a researchable question and conduct research to test that idea. A class presentation and a paper presenting the research is required at the end of the semester.

BUS 183 Academic Writing: This course involves enabling students to develop a control idea (a thesis statement) into a well-organized, well written term paper or project. It also includes teaching the mechanics of academic writing, such as quoting (direct/indirect), paraphrasing, summarizing, footnoting and giving references.

BUS 184 Communication Skills: The aim of this course is to enable the students to become aware of the communication skills of their own and of others, and ways to improve these skills for effective human relations. The subtopics covered in the course are communication theory, perception, listening, barriers to effective communications, non-verbal communication, ways to improve listening and communication skills, communication in organizations (barriers and suggested ways to improve), transactional analysis and case studies.

BUS 186 Social Psychology: Understanding social behavior, individual in society, social perception, knowing others and ourselves, attitudes, evaluating the social world, social influence, changing others behavior, hurting and helping, group dynamics, the consequences of belonging, leadership, decision making by groups, social exchange, cooperation, competition and bargaining.

BUS 191 Calculus I: 1 - The rate of change of function, equations for lines, functions and graphs, absolute values, limits, continuity. 2 - Derivatives. 3 - Applications of derivatives, curve sketching, maxima and minima, the mean value theorem. 4 - Integration, indefinite integrals, definite integrals, applications of definite integrals. 5 - Transcendental functions, inverse functions, exponential and logarithmic functions. 6 - Mathematics of finance. 7 - Introduction to probability and statistics.
BUS 192 Calculus II: 1 - Matrix algebra, matrix addition, scale multiplication, matrix multiplication, method of reduction, inverses, determinants. 2 - Linear equations, solution of linear equations, gaussions, gaussion elimination. 3 - Linear programming: The simplex method, degenerary, unbounded solutions, ultible optimum solutions, artificial variables, minimization, the dual. 4 - Integration.

BUS 193 Introduction to Computers I: Introduction to personal computer usage, Disk Operating System (DOS). Basic Programming language.

BUS 194 Introduction to Computers II: Usage of Lotus 123 package, database management, mathematical operations, sorting, regression, and introduction to macros.

BUS 211 Introduction to Business: Nature of business, legal forms of business, business ethics, regulations and social responsibility, personnel management, accounting, the nature of marketing, the scope of manufacturing, short and long-term financing and financial institutions.

BUS 212 Business Management: The nature of management, schools of management thought, the environment of management, planning and decision making, organizing and staffing, organizational change and development, leading, controlling, international management and the future of management.

BUS 214 Business Forms: Companies use a lot of printed forms and this practice becomes a standardized management style in industrialized countries. The aim of this course is to present these forms and explain their place in MIS and SIS.

BUS 216 Performance Management: To become the best that you can be requires a special balancing of the mental with the physical. There is such a close connection between our Physical bodies and our emotional feelings, states that they are often in separable. Performance management is the art and science of personnel excellence. Art because everyone brings their unique personality and style to what they do Science because there is a method and process for discovering the patterns used by outstanding individuals in any field to achieve outstanding result. This process is called excellent performance modelling for more effective communication personal development and self realization.

BUS 241 Introduction to Accounting I: Accounting as an information system, financial accounting theory, processing economic data, preparing financial statements, income measurement.

BUS 242 Introduction to Accounting II: Cash and marketable securities, receivables and payables, inventory costing and control, fixed assets, financial reports.

BUS 271 Legal Framework of Business: Definition of law, the distinction between public law and private law, business law concept and its subsystems, commercial law, tax law, accounting law, labor law, business law in international relations (confined to business enterprises).
BUS 272 Commercial Law: The purpose of this course is to give basic information related with fundamentals of commercial law. In this context the following concepts are analyzed: commercial affairs, commercial undertaking, merchant, trade register, firm name, unfair competition, accounting books, brokerage, agency. Special attention must be focused on the Turkish Commercial Code as it is an integral part of the Turkish Civil Code. The provisions of the Commercial Code and the special provisions of other laws concerning transactions, acts and affairs related in trading, house, factory, or establishment operated commercially are commercial clauses.

BUS 291 Statistics I: The topics covered in this course are mainly descriptive statistics in which frequency distributions, graphical displays, measures of central tendency, measures of dispersion are introduced in addition to probability theory and basic probability distributions.

BUS 292 Statistics II: The scope of this course is infinite statistics in which various statistical tools are explained. These are mainly related with estimation and hypothesis testing. Application and examples are designed to support and simulate real business life cases.

BUS 293 Computer Applications I: Introduction to modern programming packages for microcomputers, sorting, matrix operations, database management, regression, table construction, using LOTUS.

BUS 294 Computer Applications II: Introduction to modern database management, software for microcomputers, entering data, delete, update and edit operations in database III, indexing and sorting the data, selective operations on a database, control and loop structures, label and report designing.

BUS 311 Organizational Theory and Design: The lesson covers the structure and design of organizations. In other words how organizations are structured and how they can be constructed to improve their effectiveness. Within this context the factors: -technology, -bureaucracy, -environment, -market conditions, -economics development and changes, -social change, which are effective on the organization structure of the companies are studied and case studies related to each of them are done in the class.

BUS 312 Personnel Management: Manpower planning, selection, training, performance evaluation, motivation, wage and salary administration process, financial incentives, fringe benefits, industrial robots.

BUS 331 Business Finance I: Nature and scope of finance, financial analysis, forecasting and planning, working capital policy and management, time value of money, capital budgeting, financial structure and leverage.

BUS 332 Business Finance II: Supplementary material analysis, capital project evaluation, feasibility study, risk and rates of return, capital budgeting under uncertainty, risky projects, cost of capital.
BUS 334 Investments: The tools, rules and principles of how best to invest and manage financial securities. Principles of portfolio building, managing and controlling risk are covered at the theoretical as well as practical level.

BUS 336 Feasibility Study: 1 - The nature and purpose of a feasibility study. 2 - The preliminary market research for demand. 3 - Selection of technology, facility location, plant layout and creating alternative solutions. 4 - Financial Evaluation of alternatives, associated costs and revenues; and profitability considerations. 5 - Economic evaluation of project for employment, balance of payments and value added. 6 - Preparation of the final report and presentation.

BUS 342 Managerial Accounting: Cost-Volume-Profit relationships, master budget, flexible budgets, standart costing and variance analysis.

BUS 343 Corporate Accounting: Accounting for business organizations under the Turkish Commercial Code, accounting for general partnerships; formation, increase of capital, distribution of profit, liquidation; accounting for limited partnerships; accounting for joint-stock companies; accounting for partnership limited by shares; accounting for limited liability companies.

BUS 351 Marketing I: Understanding marketing management; marketing management and marketing strategy planning, analyzing marketing opportunities: uncontrollable variables affecting marketing management, marketing and marketing environment, market segmentation, buyer behavior, MIS, measuring and forecasting markets, marketing mix.

BUS 352 Marketing II: Developing, testing and launching new products and services, designing pricing strategies and programs, designing communication and promotion mix strategies, designing effective advertising programs, managing sales promotion and public relations programs, managing the sales force, managing retailing, wholesaling and physical distribution system, selecting and managing marketing.

BUS 361 Operations Management I: Basic concepts in operations management systems models and decision making, modelling approaches in planning. Introduction to simplex method. Sensitivity analysis.

BUS 362 Operations Management II: Characteristics of production systems, project scheduling with CPM/PERT integer and binary programming models, inventory control systems and management, QSB package program applications, term project assignment.

BUS 363 Decision Theory: Basic concepts in quality control, statistical methods in measuring quality.

BUS 364 Quality Control II
BUS 371 Tax Law I: Fundamentals of Turkish Tax Law and application: definition of tax and similar fiscal instruments, legal sources of Turkish Tax Law, the parties involved in tax relationship, procedural phases of taxation. Major current taxes in the Turkish Tax Law system; income tax, corporation tax, value-added tax; tax controls, tax crimes and penalties, tax jurisdiction, administrative corrections.

BUS 372 Tax Law II: Advanced tax law-Turkish Corporate taxation: Companies of major types of corporate entities, corporations, limited liability companies, other legal forms, accounting regulations, auditing, establishment of foreign entities, -taxes, dues on establishment and expansion of corporate entities, Corporate taxation: residents, non-residents, valuation, preserves, capital gains, mergers and divisions, value added tax, international aspects, -double taxation treaties, transfer pricing.

BUS 382 Organizational Behavior: Foundations of modern organizational behavior, employee motivation to work, learning and reinforcement, organizational behavior modification, job satisfaction, group communication, decision making, leadership, power and conflict in organizations, future prospects in organizational behavior.

BUS 384 Teamwork in Organization: The aim of this course is to introduce and explain the basic related concepts of intra and intergroup relations from the managerial point of view and the effectiveness and efficiency of managers during relations with their groups.

BUS 411 Business Policy I: An invitation to strategic management, strategic management elements, the general environment, the industry and international environment, internal analysis and diagnosis, strategic alternatives, considering strategy variations, strategic choice, implementations.

BUS 412 Business Policy II: This course is a continuation of Business Policy I. The subjects discussed in the first semester are reviewed but this time, by live cases presented by the Chief Executive Officers of the selected financial and industrial companies of Turkey. The CEO's and the firms are chosen with the assessment that material changes were made in terms of policies and strategies within that company in the previous years and under that CEO.

BUS 413 Managerial Economics: Managerial and planning characteristics of production and operations systems, facility location analysis, facility layout analysis material requirements planning, term project presentation.


BUS 416 International Business and Organizations II: An overview of various international organizations. In depth study of the European Community institutions, European law, direct application, Common Commercial Policy, Customs Union, Tur-
key-EC Association, judgement of the ECJ, anti-dumping, anti-subsidy regulations, voluntary export restraints, technical barriers.

**BUS 417 Strategic Management:** Strategic Management is structured around the commodity recognized objectives of strategic management; that is, it develops the student's peneval perspective on management and on the role of the general manager/strategist in a variety of domestic and global situations.

**BUS 418 International Management:** International Corporations, Multinational Corporations, New management techniques, Flat organizations, Role of Small businesses in Foreign trade. New productions techniques related to International corporations, New patterns in exportation and importation.

**BUS 419 Small Business Management:** Small business in economic systems, establishing a small business, entering in a small business, product composition and decoration, promotional activities, pricing, financing a small business, developing new ventures, integration to the international market.


**BUS 423 Organizational Development and Change:** The course covers the structure and design of organizations. In other words how organizations are structured and how they can be constructed to improve their effectiveness. Within this context the factors: technology, buereacracy, environment, market conditions, economic development and changes, social change which are effective on the organization structure of the companies, are studied and case studies related to each of them are done in the class.

**BUS 424 Compensation Administration:** This is a single semester course for business students. Course covers the subject of wage and salary administration, Financial incentives, Fringe benefits and the students make a field study in business enterprises concerning the related subjects.

**BUS 425 Management Audit:** The reporting systems of the implementation of strategies in all managerial levels of the organization, starting for top level descending to very lower echelons.

**BUS 426 Tourism Management:** The manager's role in the tourism industry. The planning, organizing, staffing and control functions in tourism management. Leadership and the directing function in tourism management. Tourism management in the future.

BUS 432 International Finance: Managing money, financial and real portfolios and trade in an international setting. The rules, tools and principles of international money management. World's financial and monetary institutions.

BUS 433 Financial Analysis: Using and interpreting financial statements; financial ratios; case analysis, funds flow analysis, consolidation of financial statements.


BUS 435 Risk Management: The Risk Management course attempts to teach the concepts and methods of identification and analysis of property, net income, personnel and liability exposures; as well as risk transfer and risk financing techniques related to non-commercial, absolute risks. Students, to show their understanding of the subject have to conduct a risk assessment and risk transfer case study for their final report.

BUS 436 Topics in Finance


BUS 438 International Banking: Evolution of international financial system and the place of banking in this context. International diversification. Euromarkets. Offshore banking centers. Organizational structure and operations, a functional overview. Supervision and control. Marketing and credit analysis. Techniques and types of international lending. International debt and debt rescheduling. Balance sheet structure and international asset and liability management. An introduction to the interest rate risk management through swaps, options and futures (as an extension to

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BUS 441 Profitability Accounting: Variable and absorption costing incremental analysis of cost, capital budgeting and cost analysis, transfer pricing, performance measurement.

BUS 442 Topics in Accounting

BUS 443 Tax Accounting: 1. Basic concepts and general information about Turkish tax system in view of accounting, scope in taxes/transactions causing tax/taxable person/tax base (taxable income) exemptions, exceptions, deductions/tax rates/tax credits/taxes payable/tax returns/rebates/tax refunds. 2. Differences between accounting income and taxable income; permanent differences/timing differences. 3. Accounting for value added tax; implementation of V.A.T. in Turkey/delivery concept/events causing V.A.T./V.A.T. credit (v.a.t. charged on purchases and input services of V.A.T. received. (V.A.T. charged on sales and output services)/exceptions with credit/exceptions without credit/accrual basic and monthly period/V.A.T. matching account/V.A.T. carried forward/V.A.T. payable/refundable V.A.T.

BUS 444 Auditing: Audit function; environment; the framework of an audit; audit risk, sampling, and testing; internal accounting control; general nature of audit reports.

BUS 445 Uniform Financial Accounting


BUS 448 Internal Control

BUS 451 Marketing Research I: Information gathering, basic statistical terms and formulas, research design methods, sampling procedures, experimental design, reporting, marketing research techniques, research project.

BUS 452 Marketing Research II: Review of marketing research practicing on learned concepts, evaluation of individual research exercises and fulfilling a group work (project).

BUS 453 Consumer Behavior: The primary focus of this course is to familiarize the students with the managerial process for understanding, responding to and/or having an impact on consumer behavior. Throughout the course, the factors influen-
cing the consumer decision making process will be analysed one by one: Environ-
mental influences such as culture, social class, reference groups; consumers inter-
nal influencers such as needs, motives, personality, level of learning and knowledge,
and attitudes.

**BUS 455 Sales Management:** This course covers the concepts and techniques
related to: 1. Sales management, buyer-seller interactions, content of the sales job,
personal selling objectives and strategies: 2. Measurement of marketing and sales
potentials, sales forecasting, the determination of sales territories, sales quotas and
sales budget, as well as cost control analysis, 3. Management of the sales force
through recruitment, selection, training, compensation, motivation, supervision and
evaluation, 4. Applications in international market environments. Case studies and
class discussions are used for practical application.

**BUS 456 Advertisement:** The role of advertising; planning the advertising, target
marketing; managing the advertising; advertising agencies; media strategies; creat-
ing the advertising; environments of advertising.

**BUS 457 Channel Management:** Channel management concept in marketing,
type of channels, the role of channels of distribution, the factory, the wholesaler, the
retailer, consumer side of channel management.

**BUS 458 International Marketing:** Tools and techniques in international marke-
ting; marketing strategy in international business.

**BUS 461 Production Planning & Control:** Production planning, production
control concepts and definitions, operations planning, aggregate planning, job and
machine assignment, plant location and facility layout, motion and time study, ergo-
nomics, technological change, network planning, inventory control.

**BUS 462 Management Information Systems:** Basic hypotheses in MIS; software
development in MIS; order processing.

**BUS 463 Operations Research I:** Transportation and assignment problems,
CPM/PERT, theories of modelling, decision criteria, sensitivity analysis. Integer pro-
gramming.

**BUS 464 Operations Research II:** Dynamic and goal programming, nonlinear
programming, simulation, case studies.

**BUS 465 System Analysis:** Basic systems concepts, main characteristics of sys-
tems analysis, determination of system requirements, systems approaches in plan-
ing and implementation.

**BUS 466 System Design:** Design rules, design process, design strategies, ob-
ject-oriented design, function oriented design, real-time systems design, user inter-
face design, basic concepts of system simulation, formulating and analysing simula-
tion models.
BUS 467 Total Quality Management I: Basic concepts in Quality Control, Statistical Methods in measuring Quality.

BUS 468 Total Quality Management II: Statistical process control; Special control charts; Methods for quality improvement; Acceptance sampling, Methods for design quality. Prerequisite: Quality control I.

BUS 463 Decision Theory: Introduction to statistical decision theory, problem formulation, evaluation of alternatives and consequences choice; decision making under conditions of certainty and uncertainty, value of information, utility analysis.

BUS 471 Labor Law: Employer-employee relations; establishment of an undertaking; recruitment of workers; conclusion of labor contract; implementation of labor contract; termination of labor contract.

BUS 472 Collective Bargaining: Subject of collective bargaining, parties of collective bargaining, levels and duration of collective bargaining, concluding collective bargaining, implementation of collective bargaining, expiration of collective bargaining.

BUS 474 Social Security: Social security institutions: Social Security Organization-Retired People's Foundation-Bağkur, premium collecting principles, aids provided by institutions, principles of aid raising.

BUS 481 Industrial Psychology: The objective of this course is to study human behavior in the working environment. Job related behavior will be introduced with some basic concepts as individual differences, individual and situational variables effecting job performance, personnel selection methods and techniques, personnel training, career planning, job evaluation, conditions of work, shiftwork, fatigue, stress, human factors in industrial accidents and prevention.

BUS 482 Management of Innovation: Is being a creative manager the same as being a manager of creativity Change is never easy; but the given pace of change increasingly dominates the business world. When an organization stops changing, it's only a matter of time until it's history. This course explores how creativity and innovation can be put into practice to gain continuing growth.
DEPARTMENT OF BUSINESS ADMINISTRATION
(German Medium)

Head of Department: Prof. Dr. Haluk SUMER
Professors: Wilhelm NAEGLER, Leo PUSSE,
Leonard von DOBSCHÜTZ
Associate Professor: Gerd MATTHAEUS
Assistant Professors: Serhat KUTLAN, Metin SAĞMANLI
Instructors: Dr. Joachim BEHRENDT, Dr. Gerhard REITER,
Dr. Henning S. SCHULZE,
Dr. Katharina BELLING-SEIB,
Dr. Rainer WERTHEBACH,
Dr. Peter ESCHENBACHER, Dr. Dietmar APPEL,
Helmut DALLER, Joachim BRAUN

Language of Instruction: German

The department of Business Administration, established in 1990/1991 in cooperation with the German Academical Change Association (DAAD) offers a B.A. program aiming at equipping the students with skills for problem solving, understanding business problems in their global context which are necessary to obtain a leading role both in Turkish and multinational companies.

In the first 4 semesters, the curriculum is common in the Departments of Business Administration and Business Informatics. The students are provided with the skills to follow the courses in business Administration, Business Informatics, Economics, Computer Sciences and in related disciplines like Law, Mathematics, and Statistics.

In the following 4 semesters the students have to attend one of the minor subjects (Marketing or Accounting) of their own choice, besides the main courses in Business.

All courses are taught from academic staff either from Germany or from German speaking academicians.

In addition to main courses the students have to attend language courses in Business German and Business English in order to achieve the B.A. degree.
UNDERGRADUATE PROGRAM

Freshman Year

First Semester
Introduction to Business Administration
Introduction to Law
Accounting
Introduction to Business Informatics
Introduction to Economics
Business German I
Turkish Language
Atatürk Principles I
Fine Arts I
Mathematics I

Second Semester
Material and Production Management
Macroeconomics
Computer Supported Problem Solving
Business German II
Balancing of Accountants and Valuation
Civil Law
Turkish Language
Atatürk Principles II
Fine Arts II
Mathematics II

Sophomore Year

First Semester
Basics of Computer Science
Microeconomics
Marketing
Cost Accounting I
Statistics
English I

Second Semester
Principles of Business
Application Systems
Finance and Investment
(General Business Economics)
General Economics Policy
Cost Accounting II
Law of Obligation
Statistics II
English II

MANIN COURSES IN BUSINESS

Junior Year

First Semester
Fluctuations and Growth
Human Resource Management
Multinational Corporations
Principles of Controlling
Methodology of Scientific Research
Commercial Law I
English III

Second Semester
Environmental Economics
Competition and Allocation
Planning, Organisation and Strategic Management
Capital Market Law
Commercial Law II
English IV

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Senior Year

First Semester
Employment and Labor Markets
Case Studies in Business Planning
Information Management
English V
Labor Law

Second Semester
Money, Credit and Inflation
Firm Planning Games
Social Security Law
English VI

For Those Specializing in Marketing

Junior Year

First Semester
Communication Policy
Price and Product Policy

Second Semester
Distribution Policy
Market Research

Senior Year

First Semester
International Marketing
Market Psychology

Second Semester
Marketing Management
Marketing of Tourism

For Those Specializing in Accounting

Junior Year

First Semester
Balance Sheet Analysis
Cost Accounting Systems

Second Semester
Finance Management
Tax Controlling I
(Accounting and Controlling)

Senior Year

First Semester
Tax Controlling II
(Accounting and Controlling)
Auditing

Second Semester
Business Accounting and Controlling
Firm Valuation
Foreign Trade Accounting
COURSE DESCRIPTIONS

GENERAL BASIC COURSES

Introduction to Business Administration: Business and Management within the system of sciences/Difference between economics and business management/Foundation, objects and principles of economic activities/Elementary functions of the firm/Enterprise and Operations - Differences in Accounting/The accounting system of the firm - its elementary (original) measurement/Derived measurements/Information Instruments in Accountancy/Theory and Models/Microeconomic Production and Cost Theory/Constitutional Decisions of the Firm/Management Decisions.


Bookkeeping: Concepts of Business Accounting/Technique of Accounting (Balance, Inventory)/Special Register/The Business Accounting/The Preparation of the settlement.

Introduction to Business Informatics: Fundamentals of operation- and application systems/Introductory information processing/Introductory Database/Practical work about MS-DOS, Word, Excel in the computer lab.

Introduction to Economics: Principals of the economics; introduction, current Economic Problems; data; elementary discussion; economics as science; object and problems; methodology and figuration forms/Historical Review (Precursor - Neoclassic).

Business German: The purpose of business German is to provide the students with a subset of language skills, necessary for contact with German speaking business partners. This includes oral skills (presentation, negotiation) as well as writing (comercial correspondence) and reading skills (exp. trade).

Material and Production Management: There is a closer approach to the procurement and inventory management of a business enterprise in materials management. The production management concentrates on the method and the system of the production of an industrial undertaking.

Macroeconomics: Principles of the Keynesian theory; interest rate, saving, investment and money in the Keynesian theory/Latest Developments.

Macroeconomics: Principles of the Keynesian theory; interstrate, saveing, investment and money in the Keynesian theory/Latest Developments.

Computer Supported Problem Solving: Algorithmic basic concepts/Introductory programming/Theoretical fundamentals of dBASE IV/Practical study and project
about dBASE IV in the computer lab with the permanent involvement of the teaching staff.

**Balancing of Accounts and Valuation:** The accounting principles for inventory and valuation of assets are discussed under the considerations of the Turkish Tax and commercial laws.

**Civil Law:** The concept of system of law, the Turkish legal system, scope of the civil code, law of persons, family law, law of property, law of inheritance.

**Basics of Computer Science:** In this lecture students learn the structure and function of computers. dBASE IV exercises accompany this lecture.

**Cost Accounting I:** Cost accounting provides data for various purposes, including planning, controlling, and product costing.

**Microeconomics:** Introduction; Principles of the private household; theory of the private firm; Theory of price formation of markets; perfect competition; suppliers monopoly; other type of markets.

**Marketing:** Students are introduced in the field of marketing as a part of business administration. The base is a general overview of background of modern marketing as well as its basics and methods in the classical marketing instruments (product, price, distribution (pace), promotion) as well as the marketing mix. Finally we have a look upon new direction of marketing instruments like consumer policy and after sales marketing.

**Principles of Business Application Systems:** In today's world production facilities and bureaus use most modern computer systems. Students learn at first the way how work is done there and then how computers could be optimally used to solve current problems in these bureaus and production facilities.

**Finance and Investment (General Business Economics):** The course aims to instruct the students in the basics of finance and investment. The subjects are short, middle and long term financing of the company, finance instruments, financial planning and basics of financial control and financial analysis with a special emphasis on Turkish specialities. Investment part of the course consists of introductory to terminology, static and dynamic methods for investment decisions, an overview about the methods of investment planning.

**General Economics Policy:** Taxes of economy policy; Aims of economy policy; interdependence and hierarchic of aims; Instrument of economy policy; regulative policy instruments; process policy instruments; Choice and Spesification of Instruments.

**Cost Accounting II:** Cost accounting provides data for various purposes, including planning, controlling, and product pricing.
Law of Obligation: Sources and definitions of obligations, obligations deriving from contracts, obligations deriving from unjustifiable enrichment, obligations deriving from illegal acts, Turkish law of obligation.

MAIN COURSES in BUSINESS ADMINISTRATION


Human Resource Management: Students are introduced to the science of personnel management. After a look at the basics, labor psychologies are discussed as a starting point for management decisions. Later the course discusses planning, shaping of working conditions, leading and preserving, furthermore chosen aspects of personnel management (absentism, fluctuation, mutual job termination, mobbing).

Multinational Corporations (General Business Economics) The course offers an overview about the main aspects of internationalization, such as reasons and main steps. After this introduction, the students are familiarized with the basics of business administration in multinational corporations with a special emphasis on specific problems regarding corporate and business culture. Another main point of the course is basics of international accounting and finance. At the end of the each term CEO's of MNC's in Turkey are invited in order to tell about their own experiences in the practice so that the students get a sense of the actual business life. For the time being (together with the department of Business philosophy at the University of Economics in Vienna an empirical study about the differences of corporate cultures Austrian/Turkish Companies is carried out).

"Principles of Accounting" (General Business Economics): In the introductory of the course the student is familiarized with the terminology and special role and tasks of controlling. Through practical cases the students learn typical instruments of controlling such as financial budgeting, profit budgeting, divergency analysis with a special emphasis on the impact of the high rated inflation in Turkey and principles of reporting. Another main point of the course is the system approach and strategic aspect of accounting. At the end of the term students get an overview on the advanced levels of controlling. The specialization in accounting continues in the last term of the fourth year in the course "Business accounting and marketing". However, the specialization is only for the students in the accounting and marketing department.

Methodology of Scientific Research: Planning, formulating and the rationing of the research theme/literature selection/manuscript and tapescript.

Commercial Law I: Commercial affairs, commercial undertaking, merchant, trade register, firm name, unfair competition, accounting, books, brokerage, agency.

Environmental Economics: Micro and macro economical aspects, which is shaped by the combined effects of the ecology and economy.
**Competition and Allocation:** Facts\Measure\Figuration\Fluctuation Explanation Attempts\Growth Explanation Attempts\Latest Developments in Fluctuations-and Growth - Explanation Attempts.

**Planning, Organisation and Strategic Management:** The firm and its environment (strategic analysis)/Strategic planning and operative planning, techniques and tools/the main determinants of organisation structuring/organisational change and organisational behaviour.

**Capital Market Law:** Laws, legislations and regulations about the Turkish capital market are discussed.

**Commercial Law II:** Transactions, acts and affairs related in trading, house, factory, or establishment operated commercially are commercial clauses.

**Employment and Labor Markets:** National Income\Employment and Labor Productivity\The Labor Market\Labor Organizations and Tariff Agreement\Unemployment\Theory and Policy of Employment of Keynesian-Model\Latest Developments of Employment Theory and Policy.

**Case Studies in Business Planing:** Economic Science and Business Administration cases taken from real life are dealt with discussions in different groups. By means of a computer simulation program practical decision situations in a firm are simulated and discussed.

**Information Management:**

- **Application Planning:** Strategic IS-Planning
- **Application Development:** Make or Buy Analysis
- **Applications Processing:** Project Feasibility
- **Out sourcing:** Project Management
  - IS-Maintenance
  - IS-Controlling
- **Accounting and Cost Management**

**Labor Law:** Employer-employee relations, establishment of an undertaking, recruitment of workers, conclusion of labor contract, implementation of labor contract, termination of labor contract.

**Money, Credit and Inflation:** Functions and Development of Money\Credit market, interest and finance sector\Money Supply and Bank Liquids\Theory of Money-and Credit Policy.

**Firm Planning Games:** Computer applications about imaginary competitive firms.

**Social Security Laws:** Turkish Social Security legislations are discussed.
Marketing (Elective subject)

Communication Policy: Techniques for transmission of the messages from the company to the buyer.

Price and Product Policy: Techniques of creating new products and supervising existing products; brand-policy.

Distribution Policy: Presentation of the different ways of the delivering of the products from the place of production to the point of sale.

Market Research: Techniques of the market research; Preparation and the analysis of the data.

International Marketing: Strategical approach of the companies in the international markets.

Psychology: Market psychology is looking at experience and behavior of market participants. The course focuses on the consumer as a being in processing information. To be able to discuss the different aspects of information processing we differentiate three aspects: cognitive, emotive and motoric. The consideration of different theoretical approaches of learning are also taught.

Marketing Management: Marketing-Management is the target oriented formation of all activities directed to the market. In the beginning we discuss the basics leading towards modern Marketing-Management. Students are introduced to information sources as well as to chosen generic marketing strategies. Based on these fundamentals students get to know situatively accommodated marketing strategies. Finally we discuss aspects implementation and will take a view upon future of marketing as management conception.

Marketing of Tourism: Marketing techniques and principles in the tourism industry. Research and trends in tourism-behavior, the main institutional partners in tourism industry.

ACCOUNTING (Elective Subject)

Balance Sheet Analysis: Introduction; Processing of Balance (Balance Structure, Variation and Moment of Balance); The processing of Profit Account; The Analysis of Financial Reports (Cash-Flow, The Calculation of Fonds, The Analysis of Value Creation); The Analysis of Identification; The ranges of the actual annual Balance Analysis; The attempt the improvement of the annual Balance Analysis.

Cost Accounting Systems: Cost accounting serves different purposes. In practice, cost accounting systems are structured individually, depending on the weight given to single purposes. The course "Cost Accounting Systems" informs about the single elements of a cost accounting system, different ways to plan and control costs, different ways to calculate unit costs, how to use different cost categories for decision making and at the same time, fulfill legal requirements. The course comprises of Ma-
nagement Accounting as well as Legal Accounting. Within the management accounting context cost accounting is explained in its marketing context to lead future marketing managers to sound strategical and operational decisions in their marketing fields. As the main instrument of the "Accounting" function, the cost accounting system is of high significance in the firm.

**Tax Controlling I (Accounting and Controlling):** This course is compulsory only for those students who have chosen to specialize in accounting and controlling. In the introductory part, the students are familiarized with basic terminology of taxation in Turkey and in German speaking countries and with the main structure of the Turkish taxation system. After the introductory the students have to exercise practical cases by using decision theory in order to learn optimizing the taxation of the company and to use the so saved financial resources efficiently for the company.

**Finance Management:** Introduction/Liquidity and Cash Management/Asset Management and Investment/Financing/Capital Structure Management/Integrated Investment and Financing.

**Tax Controlling II (Accounting and Controlling):** This course is compulsory only for those students who have chosen the specialization in accounting and controlling. In the introductory, the students are familiarized with basic terminology of taxation in Turkey and in German speaking countries and with the main structure of the Turkish taxation system. After the introductory the students have to exercise practical cases by using decision theory in order to learn optimizing the taxation of the company and to use the so saved financial resources efficiently for the company.

**Auditing:** Introduction and tasks/legal basics and basics of the profession/Expert Assessment/Auditing (order, planning, leading through, documentation, judgement)/auditing of the annual statement/interim control system/auditing with data processing equipment/management auditing.

**Business Accounting and Marketing:** This course is only for advanced students in accounting and marketing. The course is instructed by German and Turkish Professors together. Part of business accounting is concentrated on the operative instruments of management accounting. In the marketing part of the course students are taught about the advanced levels of marketing based on the knowledge from "basics of marketing" in the first term of the third year. Subjects are such as early recognizing systems, forecasting, profit and cost centers, special divergency analysis, coordination and implementation of controlling systems. Another main point is the reorganization of the EDP systems to controlling compatible systems in the Turkish corporations.

**Firm Valuation:** Different kinds of Mergers & Acquisitions are subjects of this lesson. Static and dynamic methods of valuation of companies are discussed.

**Accounting of Foreign Trade:** Bookkeeping by foreign trade firms/special topics.
DEPARTMENT OF BUSINESS INFORMATICS  
(German Medium)

Head of Department :  Prof. Dr. Haluk SUMER  
Professors :  Leonard von DOBSCHÜTZ, Wilhelm NAEGLER, Leo PUSSE  
Associate Professor :  Gerd MATTHAEUS  
Assistant Professors :  Serhat KUTLAN, Metin SAĞMANLI  
Instructors :  Dr. Katharina BELLING-SEIB,  
Dr. Rainer WERTHEBACH  
Dr. Peter ESCHENBACHER, Dr. Dietmar APPEL,  
Dr. Joachim BEHRENDT, Dr. Gerhard REITER  
Dr. Henning S. SCHULZE, Helmut DALLER  
Joachim BRAUN

Language of Instruction: German

The department of Business Informatics in German established in 1990/1991 in cooperation with the German Academical Change Association (DAAD) offers a B.A. programm aiming at equipping the students with skills and methods for

- problem solving using computer systems,  
- understanding business problems,  
- transforming these problems into the methods of data processing,  
- establishing computer supported communication systems,  
- supporting the management with data processed communication systems,  
- choice and implementation of standard software,  
- Developing and applying standard software,  
- analysing information systems,

which are essential for all companies in order to achieve the company goals under todays’ international keen competition.

In order to achieve these objectives the first four semesters include a general education of the students in the elemantaries of computer sciences, business administration, economics and in related disciplines like law, mathematics, statistics.
In the first four semesters the curriculum is common in the Department of Business Administration and Business Informatics. In the following four semesters the students have to attend courses in four main disciplines. These are Informatics, Business Informatics, Operations Research and Business Administration.

All courses are taught from academic staff either from Germany of German speaking native academicians.

In addition to the main courses the students have to attend the courses in Business German and Business English in order to achieve the B.A. degree.

**UNDERGRADUATE PROGRAM**

**Freshman Year**

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<th>First Semester</th>
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<td>Introduction to Business Administration</td>
<td>Material and Production Management</td>
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<td>Introduction to Law</td>
<td>Macroeconomics</td>
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<td>Accounting</td>
<td>Computer Supported Problem Solving</td>
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<tr>
<td>Introduction to Business Informatics</td>
<td>Business German II</td>
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<tr>
<td>Introduction to Economics</td>
<td>Balancing of Accounting and Valuation</td>
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<tr>
<td>Business German I</td>
<td>Civil Law</td>
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<tr>
<td>Turkish Language</td>
<td>Turkish Language II</td>
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<tr>
<td>Atatürk Principles I</td>
<td>Atatürk Principles II</td>
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<tr>
<td>Fine Arts</td>
<td>Fine Arts. II</td>
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<tr>
<td>Mathematics I</td>
<td>Mathematics II</td>
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**Sophomore Year**

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>Basics of Computer Science</td>
<td>Principles of Business Application</td>
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<tr>
<td>Micro Economics</td>
<td>Systems</td>
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<tr>
<td>Marketing</td>
<td>Finance and Investment</td>
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<tr>
<td>Cost Accounting I</td>
<td>(General Business economics)</td>
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<tr>
<td>Statistics I</td>
<td>General Economics Policy</td>
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<td>English I</td>
<td>Cost Accounting II</td>
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<td>Law of Obligation</td>
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<td>Statistics II</td>
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<td>English II</td>
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Junior Year

**First Semester**
- Software Tools
- Databases
- Methodology of Scientific Research
- Quantitative Methods I
- Fundamentals of Computer Science
- Commercial Law I
- English III

**Second Semester**
- Software Development I
- Qualitative Methods II
- Computer Architecture
- Project Management
- Logistic
- Commercial Law II
- English IV

Senior Year

**First Semester**
- Information Management
- Labor Law
- Operating Systems
- Software Development II
- English V
- Business Application Systems I

**Second Semester**
- Decision Support Systems
- Simulation
- Social Security Law
- English VI
- Business Application Systems II

**COURSE DESCRIPTIONS**

**Software-Tools**: The up-to-date technique allows us, to get help at programming in form of prewritten functions and programs. In this lecture students learn how to use these "tools".

"Databases": A. Fundamentals: Introduction\Data structures & data organisation\Files and Databases
B. Entity relationship modelling: Intro. to Data modelling\Relational Data models\normalisation\elementary Relations synthesis\Relations synthesis with a Data Dictionary
C. Applications: Database management\Programming in procedural database languages\design of company wide information architecture\Data protection & data security.

**Methodology of Scientific Research**: Planning, formulating and the rationing of the research theme/literature selection/manuscript and typescript.

"Quantitative Methods I": A. Special linear programming problems: Transport problems\Assignment problems
B. Networkplanning: Operations planning and-analysis\Time planning\Capacity & Cost planning
C. Integer Programming: Cutting-plane Method\Branch and Bound\Mixed Integer Programming
D. Dynamic Programming
E. Nonlinear Programming: Linearisation of nonlinear Problems\quad Convex programming.

Fundamentals of Computer Science: In this course students learn the structure and function of computers.

Commercial Law I: Commercial affairs, commercial undertaking, merchant, trade register, firm name, unfair competition, accounting, books, brokerage, agency.

Software-Development I: Being able to write complex programs requires the knowledge of programming techniques. Using the programming language COBOL and COBOL-Environment students learn these techniques.

Planning, Organisation and Strategic Management: The firm and its environment (strategic analysis)/Strategy planning and operative planning, techniques and tools/the main determinants of organisation-structuring/organisational change and organisational behaviour.

"Quantitative Methods II": A. Special linear programming problems: Transport problems\quad Assignment problems.
B. Network planning: Operations and -analysis\quad Time planning\quad Capacity & Cost planning.
C. Integer Programming: Cutting-plane Method\quad Branch and Bound\quad mixed Integer Programming
D. Dynamic Programming
E. Nonlinear Programming: Linearisation of nonlinear Problems\quad Convex programming.

Computer Architecture: Number systems\quad coding\quad switch nets\quad switch function and Boolean algebra\quad Presentation of the switch function with standardized expressions\quad Switch net realizations\quad Standardized switch nets\quad Logic devices\quad Basic operations\quad Control units\quad Structure of the machine instructions\quad Commands for data manipulation\quad Commands for the control of the program flow\quad Microprogramming\quad Microprocessor.

"Project Management": A. Fundamentals: Software-lifecycle\quad Projects and Project organisation\quad Case study\quad Program planning\quad Project Portfolio\quad Exercise
B. Informatics Projects: SW Projects: Planning\quad Exercise\quad Project feasibility\quad Exercise\quad SW Projects: Administration\quad SW Projects: Controlling
C. Project Management with PC: Exercises with the SW package MS Project

Logistics: Introduction/Production Program Planning (longterm, shortterm)/Purchase/Production Logistics/Production Program Planning Systems, CIM-Concepts/Distribution Logistics.

Commercial Law II: Transactions, acts and affairs related in trading, house, factory, or establishment operated commercially are commercial clauses.
Information Management:

Application Planning : Strategic IS-Planning
Application Development : Make or Buy Analysis
                       Project Feasibility
                       Project Management
Applications Processing : IS-Maintenance
                       IS-Controlling
Outsourcing
Accounting and Cost Management

Labor Law: Employer-employee relations, establishment of an undertaking, recruitment of workers, conclusion of labor contract, implementation of labor contract, termination of labor contract.

Operating Systems: Fundamentals of the Operating Systems\general overview\specifically
                  MS-DOS and Unix

Software-Development II: Being able to write complex programs requires the knowledge of programming techniques. Using the programming language COBOL and COBOL-Environment students learn these techniques.

BUSINESS APPLICATION SYSTEMS I

Basics, i.e.

- some details of decision theory
- relevant aspects of Artificial Intelligence
- operations research
- simulation
- traditional concepts of DSS (MIS), requirements
- types of architecture, including DBS-, MBS-and dialogue components

current problems of decision support in its practical application

- what about XPS-Technology?
- integration of DSS with other enterprise information systems
- advances in group decision support systems

consequences

- for common application systems
- for decision concerning DSS and IS
- future developments in DSS
Objectives: The aim is not only to supply students with theoretical knowledge about concepts and methods, but to provide them with an overall look upon the present state of the art in the field of DSS.

Simulation: Stochastic process/architecture of simulation programs/model construction/experimentation with models/presentation of simulation results/methodology of simulation/storage models/system dynamics models/queueing models.

Social Security Laws: Turkish Social Security legislations are discussed.
DEPARTMENT OF ECONOMETRICS

Head of Department: Prof. Dr. Münevver TURANLI
Professors: Şemsettin BAĞIRKAN, Besim AKIN,
Selahattin GÜRİŞ, Ibrahim DOĞAN, Aydınlı AYAYDIN
Assistant Professors: İslı AKGÜL, Fatma URFALIOĞLU, Şehamet BÜLBÜL,
Şevki KAYLAV

Language of Instruction: Turkish

The Econometrics offers an undergraduate program leading to a Bachelor's Degree in Econometrics. Main courses are economic theory, applied economics, statistics, mathematics and computer programming.

The undergraduate program enables the students to enter careers in the economic research departments of private and public enterprises.

UNDERGRADUATE PROGRAM

Freshman Year

First Semester
Calculus I
Introduction to Economics I
Introduction to Statistics
Intro to Comp. & Programming I
General Business I
Fundamentals of Law
Turkish I
Physical Ed./Art.
Atatürk Principles I

Second Semester
Calculus II
Introduction to Economics II
Probability
Intro to Comp. & Programming
General Business II
Turkish Constitutional Law
Turkish II
Foreign Language
Atatürk Principles II

Sophomore Year

First Semester
Economical Statistics
Statistical Analysis
General Accounting
Mathematical Programming I
Microeconomics I
Pascal Programming Language I

Second Semester
Mathematical Economics
Sampling
Demography
Mathematical Programming II
Macroeconomics II
Pascal Programming Language II
### Junior Year

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<tr>
<th>First Semester</th>
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<tbody>
<tr>
<td>Operations Research I</td>
<td>Operations Research II</td>
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<tr>
<td>Econometrics I</td>
<td>Econometrics II</td>
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<tr>
<td>Experimental Design</td>
<td>International Economics</td>
</tr>
<tr>
<td>Quantitative Decision Tech. I</td>
<td>Quantitative Decision Tech. II</td>
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<tr>
<td>Data Bases I</td>
<td>Data Bases II</td>
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<tr>
<td>Finance I</td>
<td>Finance II</td>
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### Senior Year

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<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tr>
<td>Applied Statistics I</td>
<td>Applied Statistics II</td>
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<tr>
<td>Applied Econometrics I</td>
<td>Applied Econometrics II</td>
</tr>
<tr>
<td>Insurance Techniques</td>
<td>Appl. of Insurance Tech.</td>
</tr>
<tr>
<td>Computer Aided Data Analysis</td>
<td>Decision Support Systems</td>
</tr>
<tr>
<td>Economic Policy</td>
<td>Financial Forecasting Tech.</td>
</tr>
<tr>
<td>Introduction to Planning</td>
<td>Planning Techniques</td>
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</table>

### COURSE DESCRIPTIONS

**Introduction to Statistics:** The population, frequency distribution, central tendency measures, variation, statistical estimation, regression and correlation analysis, time series analysis, Index numbers.

**Probability:** Introduction, sample space and events. Venn diagrams, random variables, expected value and variance: Bernouilli, binomial. Poisson, Hypergeometric, normal, gamma, Chi-square distributions, T. distribution and F-distribution, distributions arising from the normal distribution.

**Introduction to Computer and Programming I, II:** Computer today: What they are and what they do, computer hardware systems: central processor concepts, codes, components, data entry, storage, output units, type of computers- communications and networks. computer software concepts, disk operating system, compilers and interpreters, preparing computer programs. Programming in BASIC.

**Calculus I, II:** Concepts of sets and functions, linear and second degree functions, limit and derivative, graphical interpretation, multivariable functions, integral calculus and linear algebra.

**Introduction to Economics I, II:** Basic concepts, fundamentals, methods in the economics, history of economical thought, micro- and macro-economics.

**Turkish Constitutional Law:** General view, basic characteristics of 1961 and 1982 constitutions, qualities of republic, functions of government and procedures of civil law, parliament, cabinet and president, functions of the judgement.
Demography: Discussion on the fundamental concepts, theories and the policies of the population, dynamic demographical powers and movements, which affect the structure and allocation of the population. The Turkish case and its comparison with the Islamic countries and with European countries lastly entering EEC.

Sampling: What is sampling? The need for samples, bias and error in sampling the statistics and the sample frequency distribution, sampling distributions, statistical-point estimation, sample size and interval estimations.

Statistical Analysis: An introduction to estimation and techniques used for the prediction of the economical and managerial conditions: Time series analysis, examining the relation among variables, correlation and regression.

Mathematical Programming: Matrix algebra, introduction to linear programming, the theory of the simplex method, duality theory and sensitivity analysis, the dual simplex method, parametric linear programming, distribution models of linear programming, the transportation model, the assignment.

Pascal Programming Language I, II: This course gives the skill to use the PASCAL programming Language which is one of the most commonly used programming languages.

Quantitative Decision Techniques I, II: An introduction to the decision making process in the marketing management. The discussion and the demonstration of the various types of the hypothesis tests used to control the decisions driven from the samples.

Experimental Design: The terminology, concepts and techniques related to the experimental design, history and fundamentals of the experimental design, analysis of variance, sensitivity analysis, random blocks and latin-square experimental design model and related exercises.

Basic Econometrics I, II: The nature of regression analysis, assumptions behind regression, single-equation and multiple regression, matrix solutions, heteroscedasticity, autocorrelation, dummy variables.

Operations Research I, II: The nature and origins of operations research, the operations research modelling approach, non-linear programming, quadratic programming, separable programming, network analysis, including PERT-CPM, Markov chains. Markovian decision processes, queuing theory, the application of queuing theory.

Data Bases I, II: This course is about handling of data bases by using computers. Types of data bases and their structures are covered. Lotus and DBase III+ programs are taught.

Applied Statistics I, II: The recovery of the three years introduced statistics including the statistical analysis, the probability and the decision techniques and its application to the real life through the research papers.

Applied Econometrics I, II: Application of the topics of the econometrics to the macro economy and designing econometrical models by use of the computers.

Insurance Techniques and Applications: Concept and types of the insurance, life insurance, single and cyclical premium calculations, mathematical reserve, health insurance.

Decision Support Systems: Decision making under uncertainty: The Bayesian approach incremental analysis; theory of games; minimax maximin, mixed strategies, solution of a game by LP. approach, limitation to the use of the games, imulation of management systems: Monte Carlo method, waiting line simulation model, inventory simulation model, new product planning, advantages and limitations of simulation, simulation languages.

Computer Aided Data Analyses: This course gives the opportunity to use computer in statistical analyses. Command of statistical software packages are taught. Descriptive statistics, parametric and non-parametric tests, hypothesis tests. ANOVA, probability distributions, time series analysis, index numbers, and regression-correlation analyses are taught.
DEPARTMENT OF ECONOMICS

Head of Department : Prof. Dr. Orhan SEZGİN
Professors        : Atilla BAĞRIAÇIK, Kivanç ERTOP, Tamer İŞGÜDEN
                   : Osman Zekai ORHAN, Sabri ORMAN, Necla PUR,
                   : Ahmet TABAKOĞLU, Rona TURANLI,
                   : Berker YAMAN,
                   : Erol ZEYTİNOĞLU, Esat ÇELEBİ
Associate Professors : Müfit AKYÜZ, Nurdan ASLAN, Ahmet ÇAKMAK,
                      : Süreyya HiÇ,
                      : Osman KÜÇÜKAHMETOĞLU, Suat OKTAR,
                      : Tiğince OKTAR, Mustafa PİRİLI, Nuray ALTUĞ
Assistant Professors  : Gülsüm AKALIN, Uğur Selçuk AKALIN,
                       : Ümrän AKYÜZ, Ümrän ERSOYLU, Kâmil USLU,
                       : Suat YAVUZ, Riza TÜRKAY, Alkan SOYAK,
                       : Gülfettin ÇELİK

Language of Instruction: Turkish

The Department of Economics offers an undergraduate program leading
to a Bachelor’s Degree in Economics and this program also aims at a rigo-
rous instruction in all central areas of Economics.

The undergraduate program prepares the students for further study at
graduate schools, or alternatively, enable them to enter careers in private
and public enterprises. The department staff also offer graduate courses in
Economics at the Institute of Social Sciences leading to postgraduate de-
grees in various fields of Economics. The courses within the framework of
these degree programs fall into four categories: Economic Development and
History.
UNDERGRADUATE PROGRAM

Freshman Year

First Semester
Introduction to Economics I
Mathematics I
Introduction to Law
General Accounting I
Introduction to Management
Sociology
Physical Ed./Art.
Turkish I
Atatürk Principles I

Second Semester
Introduction to Economics II
Economic History
Mathematics II
Business Management
Constitutional Law
General Accounting II

Sophomore Year

First Semester
Microeconomics I
Macroeconomics I
Statistics I
Inventory and Balance Sheet
Public Finance I
Law of Obligations
Commercial and Financial Mathematics

Second Semester
Microeconomics II
Macroeconomics II
Statistics II
Mathematical Economics
Public Finance II
Turkish Economic History
Companies Accounting

Junior Year

First Semester
Economic Policy I
International Economics I
Monetary Theory
History of Economic Thought
Statistics III
Trade Law I
Cost Accounting
Computer I
Turkish Economy I

Second Semester
Economic Policy II
International Economics II
Monetary Policy II
Public Budget
Financial Tables Analysis
Trade Law II
Introduction to Econometrics
Managerial Accounting
Computer II
Turkish Taxation System I
Senior Year

First Semester

World Economy
Development Economics I
Economic Analysis I
Statistics IV
Economic Integration
Public Policy
Econometrics I
Labour Economics
Tourism Economics
Computer I
Welfare Economics
Economic Sociology

Second Semester

Turkish Economy
Economic Systems
Development Economics II
Economic Analysis II
Economic Planning
Econometrics II
Social Security
Foreign Trade Technics
Computer II
International Economic Policy
Turkish Taxation System II

* Foreign language courses (English, French and German) are compulsory only for the freshman year and elective for the following years and each are given 6 hours/week.

COURSE DESCRIPTIONS

Introduction to Economics I-II: “Introduction to Economics” is accepted as one of the basic courses, in the academic education of our faculty. In this course, primary attention is given on essential introductory information on economics. The information covers, mainly relevant definitions and some basic topics in both micro and macro levels.

Macroeconomics I: Basic working mechanisms of a capitalist economy, sources of crisis.

Macroeconomics II: Keynesian schools, Marxian approach, new classical and new Keynesian schools, post-Keynesian approach.

Public Finance I-II: An economic analysis of public sector with an emphasis on public expenditures and taxation.

Mathematical Economics: Development of the basic mathematical tools required by economist, covers multivariate differential and integral calculus, vector and matrix analysis, difference and differential equations. The course will be complemented with applications of these topics in economics, such as profit and utility maximization, input-output tables, elasticity, slope etc.

Economic Policy I: The consideration of macroeconomic objectives and instruments, decision making process in small groups political parties and government.
Economic Policy II: Classical, Keynesian, Monetary schools and rational expectations approach and their economic policy implications.

Monetary Theory: The definition, the content and the kinds of money, the creation of money and commercial banks, money systems, Classical, Keynesian and monetarist monetary theory, the mainly inflation theories, the instruments of struggle against inflation, inflation in Turkey, exchange rate systems.

Monetary Policy: The definition of monetary policy, the instruments of monetary policy, objectives of monetary policy, the efficiency of monetary policy, the determination of money supply, the factors which effect monetary base monetary multiplier and the factors which effect monetary multiplier, the coordination of monetary and fiscal policy, exchange rate systems and monetary policy.

Economic Sociology: The stages of economic and social formations in transition process of earliest primitive societies to modern ones.


Law of Obligations: Sources of obligations, obligations deriving from contracts, obligations deriving from illegal acts, unjustified enrichment.

Introduction to Mathematics I-II: Sets, relations and functions, linear functions and business-economic applications, second degree functions and business-economic application, limits and continuity, derivative and applications, sequences, functions of more than one variable, graph of functions, integral calculus, determinants and matrix, linear equations.

Labor Economics: The labour market regulations, specially the labour law rules at individual and at collective levels. The effects of these to economic determinants and vice versa.

Development Economics: This course provides training in: i) Historical origin of economic development, ii) Understanding the national/international linkages in development process, iii) Development strategies and models in development process.

History of Economic Thought: In this course areas of emphasis include; i) Classification of economists according to their approaches to schools of economic thought, ii) Schools of economic thought in historical perspective.


Social Security: This course involves coverage of the following subject matters: Social security concept, historical development of social security, contemporary approaches, financial matters of social security, Turkish social security system, social security of blue-collar workers, officiary, independent employees, combination of assurance services, social benefits and services.

Economic Systems: This course aims at examining retrospectively major economic systems, liberalism, socialism and capitalism. The first part of the course is devoted to the differentiations of system, emergence of economic systems and the relations and interactions among society, systems and economics. The second part of the course studies liberalisim, socialism and capitalism. The last part of the course covers the comparison of liberalisim, socialism and capitalism.

Statistics I - IV: An introduction to the techniques of decision making in the marketing management. The discussion and demonstration of various statistical tests for the sampling data collected for managerial aims.

Constitutional Law: A general view to the development of constitution in Turkey, basic characteristics of the Constitution of 1961 and 1982, qualities of the republic, functions of the government and procedures of the civil law, duties and competences of parliament, structure of the cabinet and competences of the president of the republic, functions of the judgement.


Sociology: A general survey of the main areas of research in sociology. Special emphasis on the techniques of social scientific inquiry.
# DEPARTMENT OF ECONOMICS  
(English Medium)

**Head of Department**: Prof. Dr. Taner BERKSOY  
**Professors**: Nazım ENGİN, Vural SAVAŞ  
**Associate Professors**: Fatma DOĞRUEL, A. Suut DOĞRUEL, Nesrin SUNGUR, Hurşit GÜNĚŞ,  
Erol KATIRCIOĞLU, Aysu İNSEL  
**Assistant Professors**: Hayri KOZANOĞLU, Aynur LEBLEBİÇİOĞLU  

**Language of Instruction**: English

## UNDERGRADUATE PROGRAM  
**Freshman Year**

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>ECO 101 Introduction to Economics I</td>
<td>ECO 102 Introduction to Economics II</td>
</tr>
<tr>
<td>ECO 121-01 Calculus I</td>
<td>ECO 112 Economic History</td>
</tr>
<tr>
<td>ECO 101 Introduction to Law</td>
<td>ECO 122-01 Calculus II</td>
</tr>
<tr>
<td>BUS 123 Introduction to Computers I</td>
<td>BUS 124 Introduction to Computers II Electroct</td>
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<tr>
<td>Elective</td>
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<tr>
<td>BUS 131 Methodology of Social Sciences Elective</td>
<td>BUS 132 Methodology of Social Sciences II Elective</td>
</tr>
<tr>
<td>Turkish I</td>
<td>Turkish II</td>
</tr>
<tr>
<td>Foreign Language I</td>
<td>Atatürk Principles II</td>
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<td>Atatürk Principles</td>
<td>Foreign Language II</td>
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# Sophomore Year

**First Semester**

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ECO 203</td>
<td>Macroeconomics I</td>
</tr>
<tr>
<td>ECO 201</td>
<td>Microeconomics I</td>
</tr>
<tr>
<td>ECO 231-01</td>
<td>Statistics I</td>
</tr>
<tr>
<td>BUS 206</td>
<td>Legal Framework of Business</td>
</tr>
<tr>
<td>ECO 205</td>
<td>Microeconomics</td>
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<tr>
<td>ECO 271</td>
<td>Eco. Development and Social Change Language</td>
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**Second Semester**

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ECO 204</td>
<td>Macroeconomics II</td>
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<tr>
<td>ECO 202</td>
<td>Microeconomics II</td>
</tr>
<tr>
<td>ECO 232-01</td>
<td>Statistics II</td>
</tr>
<tr>
<td>ECO 208</td>
<td>Macroeconomics</td>
</tr>
<tr>
<td>ECO 209</td>
<td>Foreign Language IV</td>
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# Junior Year

**First Semester**

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ECO 331</td>
<td>Econometrics I</td>
</tr>
<tr>
<td>ECO 341</td>
<td>Monetary Theory</td>
</tr>
<tr>
<td>ECO 351</td>
<td>Public Finance</td>
</tr>
<tr>
<td>ECO 361</td>
<td>International Economics</td>
</tr>
<tr>
<td>ECO 313</td>
<td>Comparative Economic Systems</td>
</tr>
<tr>
<td>ECO 371</td>
<td>Economic Growth I</td>
</tr>
<tr>
<td>ECO 385</td>
<td>Labour Economics ECO</td>
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**Second Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ECO 332</td>
<td>Econometrics II</td>
</tr>
<tr>
<td>ECO 342</td>
<td>Banking and Monetary Policy</td>
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<tr>
<td>ECO 362</td>
<td>International Economics</td>
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<tr>
<td>ECO 312</td>
<td>Physical Ed. &amp; Art</td>
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<tr>
<td>ECO 372</td>
<td>Economic Growth II</td>
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</tbody>
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**Elective Courses in Economics**

# Senior Year

**First Semester**

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<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ECO 411</td>
<td>History of Economic Doctrines I</td>
</tr>
<tr>
<td>ECO 421</td>
<td>Mathematical Economics</td>
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<tr>
<td>ECO 483</td>
<td>Industrial Economics</td>
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**Second Semester**

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<tbody>
<tr>
<td>ECO 400</td>
<td>Turkish Economy</td>
</tr>
<tr>
<td>ECO 412</td>
<td>History of Economic Doctrines II</td>
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<tr>
<td>ECO 422</td>
<td>Mathematical Economics II</td>
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**Elective Courses in Economics**

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Elective Courses in Economics

ECO 401  Economic Policy
ECO 405  Game Theory I
ECO 443  New Financial Techniques
ECO 451  Public Economics and Fiscal Policy
ECO 471  Dynamic Economics
ECO 475  Capital Markets and Development Finance
ECO 406  Current Problems in Economics
ECO 407  Game Theory II
ECO 444  International Finance
ECO 462  International Monetary System
ECO 472  International Trade and Development
ECO 482  Theory of Firm
ECO 484  Industrial Structure

Elective courses offered by the departments of Business Administration and International Relations

INT 106-03 Constitutional Law
INT 121  Humanities
BUS 101  Introduction to Law
BUS 105  English Composition
BUS 123-02 Introduction to Computers I
BUS 124-02 Introduction to Computers II
BUS 131  Methodology of Social Sciences I
BUS 132  Methodology of Social Sciences II
BUS 201  Introduction to Business
BUS 204-01 Business Management
BUS 206  Legal Framework of Business
BUS 211-02 Introduction to Accounting I
BUS 212-02 Introduction to Accounting II
BUS 221-02 Computer Applications I
BUS 222-02 Computer Applications II

COURSE DESCRIPTIONS

ECO 101 Introduction to Economics I: This course attempts to introduce basic problems of economic organization, Elements of supply and demand, output and price, the theory of utility and demand, cost and supply behaviour in a competitive economy, general equilibrium of markets.

ECO 102 Introduction to Economics II: This course is designed to introduce an overview of macro economics, national income analysis, consumption function, analysis of investment, theory of output determination, inflation, money and banking, government and fiscal policy, international trade.

ECO 112 Economic History: This course is prepared to give a brief over look at major world developments in the last two centuries that led to the formulation of economic theories and to the shaping of policies. This course is designed to give an
understanding of human societies. The formation and evaluation of human societies is the main concern of this course.

ECO 113 Sociology: This course is designed to give an understanding of human societies. The formation and evolution of human societies is the major concern of this course. Main topics include; Concepts and Research Methods in Sociology, Population and Urban Sociology, Sociology of Occupations, Social Stratification and Mobility, Social Change, Family and Socialisation, Social Determinants of Behaviour, and Sociopathic Behaviour.

ECO 121-01 Calculus I: This purpose of this course is to introduce students to a set of formal mathematical techniques and concepts which are extensively used in economics. Topics are limits, continuity, derivatives, the mean value theorem, integral, exponential, logarithms, and inverse functions.

ECO 122-02 Calculus II: Continuation of ECO 121-01. Topics are infinite sequences and series, conic sections and polar coordinates, plane vectors, matrix algebra, space coordinates and vectors, functions of two and several variables, multiple integral, line and surface integral, complex numbers and differential equations.

ECO 201 Microeconomics I: The general purpose of the ECO 201 and ECO 202 sequence is to introduce students to the main methods and results of economic reasoning. ECO 201 covers the topics on the consumption decisions of the households.

ECO 203 Macroeconomics I: The purpose of this course is to introduce mainstream economic with its variants. Basic macroeconomics concepts will be presented before we consider the different schools. The topics are; Measurement of macroeconomic variables, macroeconomic models: Classical macroeconomics, Keynesian System, monetarist view, New classical Economics, Extensions of models: Consumption, Investment, Money Supply, Money Demand, Economic Growth.

ECO 204 Macroeconomics II: Continuation of 203. In this part of the course a special emphasis is given to the open economy macroeconomics. Topics are; Economic policies, Open Economy, Macro economics.

ECO 205 Microeconomics: Main topics are; Theory of Demand, Theory of Cost, Theory of Firm, Perfect Competition, Monopoly, Monopolistic Competition, Oligopoly Theories.

ECO 208 Macroeconomics: Main topics are; National Income Accounts, Aggregate Demand, Consumption, Saving, Investment, Macroeconomic Policies, International Economic Relations.

ECO 231-01 Statistics I: Economists require information about the characteristics of the economic systems. Such requirements provide the power of explanation of economic problems. The aim of this course is to explain the meanings and applications of Distributions, Estimations, Hypothesis Testing and Regression Analysis.
ECO 272 Economic Development and Social Change: This course attempts to provide a social science perspective to second year economic students through the examination of basic issues related to social change and economic development. The issues to be examined are related to various socio-student changes that take place in Turkish society such as migration, unemployment, family structure, privatization, etc. This course aims to enrich students' view of economic issues with an attention to social dimension.

ECO 315 Economics of Democracy: This course provides economic theory of politics. Its major topics consist of the Failures of contemporary democracies, the paradox of voting and the essentials of Constitutional Economics.

ECO 313 Comparative Economic Systems: The course is designed to give the conceptual framework for economic systems under the heading of Liberalism (Mercantilism, Physiocracy), Capitalism and Socialism.

ECO 361 International Economics I: The pure theory of international trade dynamic factors in international trade-trade restrictions: tariffs, the balance of payments, the foreign exchange market, adjustment in the balance of payments, the international monetary system.

ECO 362 International Economics II: Continuation of ECO 361

ECO 368 Economics of The European Union

ECO 371 Economic Growth I: Growth models without technical progress: Harrod-Domar model; neoclassical model; two sector models. Technical progress, disembodying technical progress, embodied technical progress; theories of bias and neutrality. Post Keynesian growth no.

ECO 372 Economic Growth II: Continuation of ECO 371. Topics are; post-Keynesian models of economic growth, technical programs (embodied-disembodied) embodied growth theory.

ECO 332 Econometrics II: Multicollinearity; heteroscedasticity; autocorrelation, autoregressive and distributed lag models; seemingly unrelated regressions; simultaneous equation model; estimation of simultaneous equation model.

ECO 342 Banking and Monetary Policy: This course is organised in such a way to investigate theoretical and empirical issues in banking and monetary policy. Topics are: Targets, instruments, indicators and objectives of monetary policy, Determination and control of money supply and the Central Bank, Lending Techniques, Interpreting balance sheets, and International Banking.

ECO 312 Turkish Economic History: Classical economic system of the Ottoman empire; change in the economic structure of Ottoman Empire; economic structure at the early period of the Republic of Turkey; impact of 1929 crisis on Turkish economy.
ECO 376 Economic Development: The course is concerned with the application of the economic theory in the context of the developing countries. Topics include the basic characteristics of the developing countries, industrialization policies, development and functioning of markets, population and income distribution, policies in international trade, and stabilization policies.

ECO 304 Business Finance II: Bond and stock valuation, stock market equilibrium. Capital budgeting techniques, evaluation of decision rules. The cost of capital, marginal cost of capital and investment opportunity schedules.

ECO 378 Theories of Economic Integration: The free trade zones and the formation of a new trade, the custom unions and the changing the way of trade, the common market and the equality of the price of the goods, the common market and the equality of the price of the production factors, the effectiveness of economic integration on the production and consumption.

ECO 382 Economics of Technology: The objective of this course is to provide economic analysis of the technological developments and their effects on social, political and cultural life.

ECO 400 Turkish Economy: Basic characteristics of the industrialization policies, banking and financial markets; market structure and economic performance; state intervention and incentive policies; import substituting industrialization; foreign trade and exchange rate policies; stabilization and liberalization policies.

ECO 401 Economic Policy: The course aims to make the student familiar with current developments in macroeconomics and their relevance to economic policy issues. Following a review of recent and current thinking in macroeconomic theory, the course examines the policy issues such as relative effectiveness of fiscal and monetary policies, policy neutrality and economic stability. The course pays particular attention to the policies towards stabilization and economic growth in the developing countries.

ECO 405 Game Theory I: This course will introduce game theory and its applications on economic problems. It is recommended for students who are interested in industrial organisation and the new dimensions of micro theory. Topics covered include expected utility function, formal representation of normal and extensive games, nash, mixed nash, elimination of dominated strategies, subgame perfect and sequential equilibria, classical models of duopoly and games of incomplete information.

ECO 406 Current Problems in Economics: The purpose of the course is to introduce the topics which are discussed recently in economics theory and practice.

ECO 407 Game Theory II: Continuation of ECO 405.

ECO 411 History of Economic Doctrines I: The course is designed to explore the historical development of economic thought from ancient and medieval times.
Topics are; ancient and medieval thought, physiocratic thought, classical thought, socialist thought, the historical school, the Austrian school, and the neo-classical school.

ECO 412 History of Economic Doctrines II: The course is designed to explore the economics of the twentieth century. It covers the Keynesian, Monetarist, Post Keynesian Supply Side Economics and Neo-Classical Economics.

ECO 422 Mathematical Economics II: Dynamic analysis; economic dynamics and integral calculus; continuous time and differential equations; discrete time and difference equations. Mathematical programming; Linear programming; nonlinear programming. Game theory.

ECO 475 Capital Markets & Development Finance: This course covers the aspects of economic policy with respect to the development of financial markets in developing countries. Topics are; interrelationship between money and capital, the functioning of the capital market as a system, micro and macroeconomic effectiveness and capital market, capital market in the field of development finance.


ECO 452: Public Eco. and Fiscal Policy.

ECO 462 International Monetary System: This course reviews international monetary theory, economic policy and international finance. Topics covered include a historical appraisal of the international monetary system; from Bimetallic System to Bretton Woods (Centrally Created Reserves), Regional Monetary Integrations, World Money Order and Reforms, International Monetary Transactions.

ECO 471 Dynamic Economics: This course is designed to introduce students to the latest developments in dynamic economics. Topics are sources of growth, technical change, optimal growth path, introduction to control theory, expectations and predictability of future. Emphasis on concepts and results rather than techniques and proof.

ECO 472 International Trade & Development: This course covers major theories of international trade in such a way to explore their relevance to the problems facing developing countries. Main topics include: Importance of Trade for Development, Free Trade and Economic Development, Trade Strategies and Policies for Economic development, inward looking Trade Strategy and Import Substitution, Outward looking Trade Strategy and Export Oriented Development, Foreign Trade Policies in Turkey.
ECO 483 Industrial Economics: This course explores industrial organisation theory and the nature of competition between firms. The Theory of the firm, the exercise of the monopoly power, product selection, quality and advertising, price discrimination, short-run price competition, dynamic price competition, entry and exit, the discussions over the empirical studies such as price, concentration relations are the topics covered in the course.

ECO 484 Industrial Structure: The purpose of the course is to focus more closely on issues of industrial structure by discussing some new game theoretical models, such as strategic creation of barriers to entry and exit, predatory pricing, strategic advertisement and R&D activities.
DEPARTMENT OF INTERNATIONAL RELATIONS
(English Medium)

Head of Department: Prof. Dr. Kemâli SAYBAŞILI
Professors: Akile GÜRSOY, Cengiz OKMAN
Associate Professors: Büşra Ersanlı BEHAR, Nihal İNCİOĞLU,
Şule KUT, Nilüfer NARLI, Tuğrul TANYOL, Mete TUNÇAY
Assistant Professors: Fulya ATAÇAN, Esra ÇAYHAN,
Gencer ÖZCAN, Günay G. ÖZDOĞAN,
Mensur AKGÜN, Nurşin A. GÜNLEY, Ayhan AKTAR
Instructors: Dr. Belkis KÜMBETOĞLU, Dr. Gül TOKAY,
Dr. Ayşegül SEVER, Dr. Nuray BOZBORA

Language of Instruction: English

The Department of International Relations offers both undergraduate and postgraduate programs to those students interested in working in the public and private sector organizations as well as in international institutions. These degree programs are mainly based on five areas of specialization: International Relations, Turkish Politics, Political Theory, International Law, and Diplomacy. Finally, historical perspective is an indispensable part of most of the courses, and undergraduate students are given an opportunity to take courses of their interest from the departments of Economics and Management.
# UNDERGRADUATE PROGRAM

## Freshman Year

<table>
<thead>
<tr>
<th>First Semester</th>
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<td>INT 101</td>
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<td>INT 103</td>
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<td>INT 131</td>
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<td>ECO 101</td>
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<td>BUS 101</td>
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<td>Atatürk Principles I</td>
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* Part-time.

## Sophomore Year

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<th>First Semester</th>
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<tr>
<td>INT 201 History of International Relations I</td>
<td>INT 202 History of International Relations II</td>
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<tr>
<td>INT 203 Political Theory I</td>
<td>INT 204 Political Theory II</td>
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<td>INT 205 International Law I</td>
<td>INT 206 International Law II</td>
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<td>ECO 201 Microeconomics</td>
<td>ECO 208 Macroeconomics</td>
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<tr>
<td>INT 225 Political Parties Elective</td>
<td>INT 208 Administrative Law Elective</td>
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## Junior Year

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<th>First Semester</th>
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<tr>
<td>INT 303 International Politics I</td>
<td>INT 304 International Politics II</td>
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<tr>
<td>INT 305 International Organizations I</td>
<td>INT 306 International Organizations II</td>
</tr>
<tr>
<td>INT 311 Turkish Politics I</td>
<td>INT 312 Turkish Politics II</td>
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<tr>
<td>INT 351 Private Int. Law I Area Elective</td>
<td>INT 352 Private Int. Law II Area Elective</td>
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<tr>
<td>Unrestricted Elective</td>
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<td>Opt: Language Elective</td>
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Opt*: Optional languages are German, French, Italian, Spanish, and Arabic.

Unrestricted Elective* courses could be chosen from among the obligatory and elective courses of the departments of Economics and Management.
### Senior Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>INT 401 Theory of International Relations</td>
<td>INT 402 Conduct of Foreign Policy</td>
</tr>
<tr>
<td>INT 413 Turkish Foreign Policy I</td>
<td>INT 414 Turkish Foreign Policy II</td>
</tr>
<tr>
<td>INT 421 Current International Issues I</td>
<td>INT 421 Current International Issues II</td>
</tr>
<tr>
<td>BUS 403 International Business and Organizations I</td>
<td>BUS 404 International Business and Organizations II</td>
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<td>Area Elective</td>
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<td>Unrestricted Elective</td>
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### COURSE DESCRIPTIONS

**INT 101 Introduction to Political Science I:** The basic aim of the course is to discuss the foundation of political science: the scope of the discipline, concepts and approaches to the study of politics. In the first section, the course aims to consider the role of the individual, groups and institutions involved in the political process.

**INT 102 Introduction to Political Science II:** In the second section, national politics (parties and groups), public administration and Policy Studies, Comparative Government and Politics, Local Politics, international politics, citizenship (local, national and international), state, and related methodological considerations are covered.

**INT 103 Sociology I:** This course is designed to develop a basic understanding of human societies. Interaction between man and the nature, different types of human organizations and the evolution of human society throughout the history are the main themes considered in this course.

**INT 104 Sociology II:** Formation and the rise of modern industrial society is the main concern of this course. The process of modernization and social change in the developing countries, and the Turkish social formation are also studied in this section.

**INT 106 Constitutional Law:** The development of the Turkish Constitutional Movement and the formation of the written Turkish Constitutions (1876, 1921, 1924, 1961 and 1982) are elaborated in this course. The course places specific emphasis on the organs and the structure of the 1982 Constitution.

**INT 121 Humanities I:** This course attempts to develop an understanding of the concept of culture, and a general perspective into cultural evolution. In this section, selective examples are studied from hunter-gatherer societies, the earliest sedentary cultures, and the earliest civilizations of the world, such as the Ancient Greek and
Roman cultures. The concept of ethnocentrism is analysed with a view to bring a
deeper understanding of the conflicts and differences of world view in international
relations in the contemporary world.

INT 122 Humanities II: In this section, changes and developments in Medieval
Europe, the Renaissance and Reformation periods, and the meaning of the enlighten-
ment are studied with a commentary on the development of the "modern" world
outlook in Western Europe. The social structure of the society in which the French
Revolution arose is examined, demonstrating the interrelatedness of political, econo-
mic and social spheres of life. A general introduction into basic world statistics is
made to familiarize the student with contemporary global divisions and to give an
idea on the distributions of cultural diversities.

INT 131 Research Workshop: The course has two complementary aims: First, to
bring familiarity to the logic of scientific investigation; the different methods and tech-
niques involved in scientific research with particular emphasis to those most used
in International Relations. Secondly, it aims to introduce the basic principles of writ-
ing academic papers based on research. For this purpose, the course involves
practical skill development in the form of conducting research and writing reports.

INT 201 History of International Relations I: Political and historical setting of In-
ternational Relations from the French Revolution (1789) to the outbreak of the World
War I (1914) with respect to the nature of balance of power among the major Euro-
pean states and the Ottoman empire, with due emphasis on the Concert of Europe,
the Alliances System, imperialist rivalry formation of alliances and the Eastern Quest-
ion.

INT 202 History of International Relations II: History of International Relations
between the two World Wars (1914-1939) based on the diplomatic and political de-
velopments in Europe and the non-European world with due attention to major econ-
omic issues of the period. The role of the League of Nations, the impact of the So-
viet Union and a re-ascending Germany, the emergence of the U.S.A. and Japan as
the two great powers of the world; from appeasement to the War.

INT 203 Political Theory I: The first section of the Political Theory attempts to
trace the historical origins of political theory with special reference to democratic po-
litical thought. The approach of the course is historical. The course deals with such
key concepts of political science, society, government, state with respect to the
place of the individual within the political system. The course covers the main trends
in the history of political thought up to the end of the sixteenth century in which the
modern concept of state emerged.

INT 204 Political Theory II: The second section of the Political Theory follows up
the modern concepts of state and society in a more contemporary context. Political
theories of Hobbes, Locke, Montesquieu, Rousseau, Paine, Hegel and Marx are
brieﬂy covered. The main concern of the course is to study various and conﬂicting
theories of state. Starting with the Absolutist Theory of state, constitutional, Hegelian,
Marxist and pluralist theories of state are studied.
INT 205 International Law I: Definitions; sanctions in International Law; sources of International Law (treaties, customary rules of International Law, general principles of law, jurisprudence of courts and teachings of highly qualified scholars); relations between International Law and National Law (application and status of International Law in national legal systems); subjects of International Law (states, intergovernmental organizations, individuals); recognition of states and governments; territory of state (land, maritime and airspace); and international transactions.

INT 206 International Law II: The law of the sea; the law of treaties; jurisdiction and competences of state; diplomatic relations and exemptions from national jurisdiction; treatment of aliens; protection of human rights; international disputes and procedures for their settlement; law of war and neutrality.

INT 208 Administrative Law: This course attempts to give a general introduction to administrative duties, public administrative organizations, and public personal systems in the Turkish legal system.

INT 225 Political Parties: The purpose of the course is to provide a theoretical and comparative framework for the study of political parties. Different theoretical approaches to political parties are discussed throughout the course. Main topics are the relationship between society and political parties; the role and function of political parties within the political system; internal structure of political parties; voter alignments; elections; and party systems.

INT 303 International Politics I: World War II and after; evolution of the war; meetings and conferences between 1945-1947; from cooperation to confrontation; the German problem; problems debated at the UN; areas of confrontation; Iran, Turkey, Greece.

INT 304 International Politics II: The world during the 1950's (Middle, East, Eastern Europe, Berlin and Cuban Missiles Crisis); contemporary developments in international relations; loosening of international relations within the blocks; relations between the blocks; problems of the Third World.

INT 305 International Organizations I: This full-year course attempts to develop a comprehensive understanding of international organizations through theoretical, historical, structural, and issue oriented analysis within the broader framework of the international system. In addition to origins and typology of international organizations, and several individual international organizations are studied such as EC, CSCE, UN, NATO, WEU, Council of Europe, EFTA, OECD, IMF, IBRD, UNCTAD, ILO, OPEC, UNCLOS, UNEP, Amnesty International, and Helsinki Watch.

INT 306 International Organizations II: Continuation of INT 305

INT 311 Turkish Politics I: Social and political history of the Ottoman Empire, starting with the foundation of the Ottoman State until the dissolution of the empire after the World War I; social, economic and political structures during the "classical" period; contracts with the West; end of expansionism and the disturbances in the
social order; modernizing reforms from above; aspects of the Ottoman modernization movement (Tanzimat); new political actors (Young Ottomans and Young Turks) and the introduction of the new ideas; establishment of the Constitutional Monarchy; Young Turks and the period of the second Constitutional Monarchy.

INT 312 Turkish Politics II: Transition from the Ottoman Empire to the Turkish Republic; National Liberation War; foundation of the Turkish Republic; basic transformations in the political and legal structures of the 1920's; period of the single party rule; transition to the multi-party system after World War II, and the Democratic Party; military interventions of 1960, 1971 and 1980, and constitutional changes; basic characteristics of the Turkish political system and political life.

INT 321 Social Change I: The main focus of this course is the study of ideas reflecting on social change. Scale and density of social change are examined at several stages as long as they are reflected in the theoretical formulations related to social change. Social evolution and the rise of sociological categories are the main issues discussed in this section of the course.

INT 343 State and Religion in the Middle East: This course aims to examine the general approaches to the relations between state and religion. Religious organizations and ideologies are dealt according to the socio-political change of each country in the Middle East. The main issues to be discussed are the cases of Egypt, Iran, Saudi Arabia, Syria, Iraq, Lebanon, and Israel.

INT 344 Social and Political Issues in the Middle East: The aim of this course is to examine the current socio-political issues in the modern Middle East. Special attention will be paid to the Palestinian question, affects of the Gulf War in the region, and the current developments in Lebanon.

INT 351 Private International Law I: Nationality, acquisition and loss of Turkish nationality; effects of marriage on nationality; proof of nationality; nationality of ships and aircrafts. Various categories of aliens; right to enter; deportation residence permit; acquisition of real estate; right to work; right to sue, etc.

INT 352 Private International Law II: Conflicts of law; various types of conflicts, jurisdiction, domicile, selection of the appropriate law (Turkish or foreign) which would apply in a case; public policy, recognition and enforcement of foreign foreign court decisions and arbitral awards. Consular law; establishment and exercise of consular relations; consular functions, etc.

INT 354 Research Methods: The purpose of the course is to provide the scientific basis of social and political inquiry. The main topics are the specificity of social sciences, major epistemological traditions in social sciences, conceptual foundations of social research, stages of social research, role of methodology, qualitative and quantitative methodologies and research techniques.

INT 401 Theory of International Relations: Theoretical approaches to International relations; man-milieu relationships; political realism at the international level; sys-
temic theories; microcosmic theories of conflict; revolution; macrocosmic theories of conflict; nuclear deterrence and arm control; theories of international integration, regionalism and alliance cohesion; decision making and game theories; and internal studies in the 1970s.

INT 402 Conduct of Foreign Policy: The overall structure of the National Security Process, and the particular position of diplomacy; the art of diplomacy; the place of diplomacy in international politics; substantive and procedural functions of diplomacy; machinery of diplomacy; the art of negotiation and the limits of compromise; the elements of contemporary diplomacy; problems in decision making; problems of administration; and the future of diplomacy.

INT 405 Ottoman Diplomatic History: The foundation of the Ottoman Empire and its early relations. The decline of the Ottoman power: The effects of the decline on the Ottoman foreign relations; capitulations, foreign trade, ethnic and religious communities. Aspects of the Ottoman diplomacy: Return to isolation. The beginning of the Eastern Question: Ottoman Empire, Mehmet Ali and Turkish Straits. The diplomacy of Tanzimat: "The Sick Man and Europe." Abdülmillet: A fight for imperial survival. "İthinat ve Terakki:" In search of a policy and a protector. The Ottoman-German Alliance: The beginning of the end. The First World War: Final act.

INT 406 Political Sociology: The concept of power, structures of power in pre-industrial societies, the rise and the development of the modern state, structures of power in industrial societies, political participation, elections, political parties, pressure groups, political culture, and ideology.

INT 413 Turkish Foreign Policy I: The main purpose of this course is to study Turkey's relations with other nations since the end of the First World War. Major problems of Turkish foreign policy is analyzed in terms of their historical development. In this context, a special emphasis is placed on the basic factors that shape Turkish foreign policy.

INT 414 Turkish Foreign Policy II: Continuation of INT 413

INT 421 Current International Issues I: In this course, the aim is to analyze the current international issues in a comprehensive historical and theoretical framework with a purpose of grasping the significance of each issue for the international order of 1990s. The issues include the New European Architecture: CSCE, Council of Europe, EC, NATO, WEU in the Post-Cold War; dismemberment of Yugoslavia and current situation in former Yugoslavia, war in Bosnia-Hercegovina; UN and the international intervention; dissolution of the USSR and emergence of CIS; current situation in the Caucasus.

INT 422 Current International Issues II: Cases of Seperatist nationalism (Quebec, Northern Ireland, Catalonia, Slovakia, Nagorno-Karabagh); Kurdish Question in the Middle East; Palestinian Question and the Middle East peace talks; Middle Eastern waters problem. Cases of Civil War: Lebanon and Afghanistan; Eastern and Central Europe since 1989; conflict and cooperation in the Black Sea region.
INT 433 Diplomatic Correspondence I: The purpose of this course is to inform the students about the techniques of communication used by foreign affairs officers, critical aspect of scripts in diplomatic correspondence, formats of diplomatic correspondence, and their usage in other fields.

INT 434 Diplomatic Correspondence II: Continuation of INT 433

INT 446 Nationalism: Past and Present: A general theoretical and historical evaluation of nationalism, given the legacy of nineteenth century ethnic nationalisms and the impact of nationalist ideology; the modern phenomenon of nation-state, and problems and process of nation-building; the recent disintegration of multi-national states, with special reference to the former Yugoslavia and the Balkans and/or the Soviet Union and the new Turkic states.

INT 456 Human Rights: Contemporary Issues: Human rights as a concept, development program and world view has increasingly occupied the agendas of international organizations. The contemporary discourse on human rights also reflects the tensions between "east" and "west", the developed and developing world. This course, firstly, attempts to look into the development of human rights principles in the 20th century and secondly, discusses the main issues that have arisen in view of Islam and human rights, gender related considerations and human rights vis-a-vis individualism, communality and governmental commitment.
DEPARTMENT OF LABOR
ECONOMICS AND INDUSTRIAL RELATIONS

Head of Department : Prof. Dr. Ali Riza OKUR
Professors : Kuvvet LORDOĞLU, Ali GÜZEL
Associate Professors : Mustafa AYKAÇ, Müjdat ŞAKAR, Sema ERDER
Assistant Professors : Argun KÖTELİ, Aylan ARı, Neslihan OKAKIN,
Pınar TINAZ
Instructors : Dr. Ahmet KOTIL

Language of Instruction: Turkish

The main purpose of the Department of Labor Economics and Industrial Relations is to equip the students with necessary skills and knowledge in order to enable them to bring rational solutions to the problems of working life. The program is designed to raise highly informed and qualified personnel of the future whose qualifications match the future economic necessities of Turkey.

In order to achieve this objective, during the period of four years, students are enrolled to courses which are designed to provide a basic knowledge of scientific approach to the employee and employer relationships. Some of the topics that are included in the program are Labor Economics, Labor Law, Social Security Law, Business Administration, Labor Sociology, Industrial Psychology.
UNDERGRADUATE PROGRAM

Freshman Year

First Semester
- Mathematics I
- Introduction to Economics I
- General Accounting I
- Atatürk Principles I
- Turkish I
- Physical Ed./Art I
- Introduction to Sociology
- Fundamentals of Turkish Private Law
- History of Social Ideas
- Introduction to Business

Second Semester
- Mathematics II
- Introduction to Economics II
- General Accounting II
- Atatürk Principles II
- Turkish II
- Physical Ed./Art II
- Business Administration
- History of Economics
- Introduction to Political Science
- Constitutional Law
- Law of Obligations

Sophomore Year

First Semester
- Statistics I
- Social Politics I
- Commercial Law I
- Microeconomics
- Commercial and Financial Maths.
- Social Psychology
- Labor Economics
- Inventory and Balance Sheet

Second Semester
- Statistics II
- Introduction to Social Politics II
- Commercial Law II
- Macroeconomics
- Business Accounting
- Public Administration
- Public Finance
- Research Methods in Social Sciences

Junior Year

First Semester
- Trade Union Law I
- Fundamentals of Labour Law I
- Economical Theories and Systems
- Employment and Unemployment
- Human Resource Management
- International Economics
- Cost Accounting
- Social Structure of Turkey

Second Semester
- Trade Union Law II
- Fundamentals of Labor Law II
- Money and Banking
- Theory of Social Security
- Work Safety and Occupational Health
- Tax Law
- Financial Tables Analysis
- Labor Sociology
- Wage and Productivity
- Social Planning
Senior Year

First Semester
Industrial Relations I
Social Security Law I
International Social Policy and European Community I
Criminal Provisions on Labor Law I
Collective Bargaining Law I
Social Political Researches I
Ergonomics
Income Distribution and Income Policies
Turkish Economics
Informatics
Economic Development

Second Semester
Industrial Relations II
Social Security Law II
International Social Policy and European Community II
Criminal Provisions on Labor Law II
Collective Bargaining Law II
Social Political Researches II
Industrial Psychology
Theory of Corporation and Application
Collective Bargaining: Strategies and Tactics

COURSE DESCRIPTIONS

Introduction to Business: The aim of the course is to introduce informations related to the major concepts of business, classification of organizations and business functions such as production, marketing, finance and management.

Business Administration: This course aims to give general informations about business administration and discuss organizational theories and management functions such as planning, decision making, control, leadership and communication.

History of Social Ideas: The developments in the way of thinking related to the society are discussed from the ancient time until today and a special focus is made on the contemporary developments in socio-political thinking.

Introduction to Political Science: This course is about the state and power, politics and society relations, ideologies, political behavior, political commitment, political structures and organizations, and political systems.

International Social Policy and European Community I - II: This course involves these subject matters: Historical development of international social policy, norms of ILO, social rights in United Nations documents, social condition of European Community, social decree of Rome Agreement, directives and rules and regulations, Maastrich Agreement and social politics.

Collective Bargaining Law I-II: Importance and place of collective bargaining in industrial relations, procedure and degree of collective contract, strike and lockout and mediators.
Social Security Law I - II: Social security concept, historical development of social security, contemporary approaches, financial matters of social security, Turkish social security system, social security of blue-collar workers, officers, independent employees, combination of assurance services, social benefits and services.

Fundamentals of Labor Law I - II: This course involves the major topics of labour law such as its historical development, its basic concepts, its scope, labor contract, severance pay, working hours, holidays with pay etc.

Trade Union Law I - II: This course involves the topics such as union independence and rights, establishment and procedure of employee-employer foundations, foundation types and their establishment conditions, membership, legal and illegal activities, control and causes of foundations' annulment and rules.

Theory of Social Security: This course involves the topics such as social security concept, its historical development, social assurance, income maintenance programs, benefits in kind program, income distribution, economical and financial dimensions of social security.

Collective Bargaining: Strategies and Tactics: Policies like radical, detailed, equalizer, short-term and continuous bargaining strategies are discussed as general conduct. Moreover, special subjects like wage, hours of work, work and employment security etc; and the strategies like timing, determining bargaining unit, using power, public opinion etc. are emphasized. The effective factors like progresses at international, national, class, and branch of activity level are also taken into consideration.

Labor Economics: This course aims to introduce the discipline which makes economical investigations and analysis of labor market, unions, collective bargaining and wages.

Industrial Relations I - II: This course aims to introduce the discipline which analyzes the existing system of unions and collective bargaining by using the available informations about the countries' legal, social and economical conditions.

Turkish Economy: In the course of Turkish Economy which investigates the structural characteristics of economy analytically, corruptions and insufficiencies of economical structure are interpreted, comments are made to correct them, and sectoral measures are handled as oriented toward the market economics.

Industrial Psychology: The major aim of the course is to discuss human behavior in organizational structure and work setting. Application of psychological approaches to the processes such as selection, job-individual matching, education, career development are emphasized.

Social Political Researches I - II: This course aims to direct students make research on any social political subject that is interesting for themselves and develop their abilities of conducting research and writing article and reports.
Theory of Corporation and Application: Economical units of society which stay insufficient under the competitive conditions of free market are emphasized in this course and informations related with the precautions to improve these conditions are given and the effect of these units to the development process of Turkey are discussed.

Wage and Productivity: The aim of the course is to investigate wage concept and its importance and discuss wage systems based on time and product and job evaluation systems. Definition of productivity, methods to increase it and effect of this increase are discussed.

Introduction to Sociology: This course on sociology aims to introduce the basic concepts on the field. The major focus of the course is on the issues of social structure and social change.

Research Methods in Social Sciences: This course aims to introduce the discussions on the major paradigms in social research methodology. Besides some social research techniques are introduced for the beginners.

Labor Sociology: The major focus of this course is to study sociological meaning of labor and interrelations of social structure and job structure for understanding and comparing different types of job markets, in different societies.

Social Psychology: The major focus of the course is to familiarize students with the scientific field that seeks to understand the nature and the causes of human behavior in social situations.

Fundamentals of Turkish Private Law: Reception and the problem of written law compared with unwritten law. Different branches of civil law: Different branches of civil law: Law of persons; famil, law; law of succession; law of property.

Introduction to Social Politics I - II: In this course, those major topics are discussed: Concept of social politics, resources of labor, function of social politics related to the social economical structure, wages and productivity, problems of social politics which charges according to the economical development and instrument of social politics.

Social Structure of Turkey: The aim of the course is to discuss: Population structure of Turkey, employment, placement, age distribution, services of education and health.

Employment and Unemployment: Course investigates the concepts of population, human resources, employment and unemployment. Following the explanation of employment and its importance, those elements which determine the employment capacity are analyzed. The characteristics of unemployment in developing countries are handled in terms of the theories developed for these countries. Unemployment types, historical development and future implications are evaluated.
Law of Obligations: The concept of obligations and the Roman origin; various systems defining the concept of obligations; continental law system, common law system of obligations. Sources of obligations in the Turkish-Swiss laws: Obligations deriving from contracts, elements necessary for contracts, "meeting of minds, capacity of parties, subject matter, legal cause, enuiness of free will, (if required) legal form". Representation/agency relationship. Obligations deriving from illegal acts; Art. 41 conditions, illegality, damage, fault principle, adequate causality", Art. 96 conditions, "total breach, delayed performance, inadequate performance". Obligations deriving from unjustifiable enrichment.
DEPARTMENT OF PUBLIC ADMINISTRATION
(French Medium)

Head of Department: Prof. Dr. Yaşar GÜRBÜZ
Professors: Jale ÇİVELEK, Barlas TOLAN, Nur VERGİN
Associate Professors: Aydın UĞUR, Füsun ÜSTEL
Assistant Professors: Ferhat KENTELEM, Ali Vahit TURHAN,
Ümit ATAM TÜRK, Ayşegül BAŞBUĞU

Language of Instruction: French

The department offers an undergraduate program (in French), in Political and Administrative Sciences. The students, during the first and second years are exposed to a wide range of general fundamental courses as a preparation for the more technical and specialized work to be undertaken in the third and fourth years. The curriculum for the last two years is designed to provide the students with a more advanced knowledge of political and administrative sciences. The courses are divided in balanced fashion in to two sections: Economics and Finance, Communication and Human Resources. The Department organizes also a French efficiency exam for the students who are qualified for admission to the University, and determine the students of preparatory and undergraduate programs.

UNDERGRADUATE PROGRAM

Freshman Year

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<tr>
<th>First Semester</th>
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<tr>
<td>Comparative Constitutional Law I</td>
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<td>History of Political Ideas I</td>
<td>Microeconomics</td>
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<td>Introduction to Political Science</td>
<td>Social Psychology and Communication</td>
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<td>Introduction to Law</td>
<td>Turkish Constitutional Law</td>
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<td>Introduction to Economics</td>
<td>Methodological Workshop on</td>
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<td>Methodological Workshop on Constitutional Law</td>
<td>Economics I</td>
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<td>Methodological Workshop on Intellectual History</td>
<td>Methodological Workshop on Social Sciences</td>
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<td>Atatürk Principles I</td>
<td>Turkish II</td>
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<td>Turkish I</td>
<td>Atatürk Principles II</td>
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</tbody>
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### Sophomore Year

**First Semester**
- Political Sociology
- Macroeconomics
- Int. to Management
- Statistics and Research Techniques
- Methodological Workshop on Economics II
- Methodological Workshop on Management
- Methodological Workshop on Written Expression
- Opt.* Language Elective

**Second Semester**
- Turkish Administrative Law
- Political Philosophy
- Public Finance
- Contemporary History
- Methodological Workshop on Oral Expression
- Methodological Workshop on Political Science
- Methodological Workshop on Computers and Information Processing
- Opt. Language Elective

### Junior Year

**For those specializing in Communication and Human Resources**

**First Semester**
- International Public Law
- International Economics
- Information and Communication
- International Law and Human Rights
- Cultures and Identities
- Area Elective
- Opt. Language Elective

**Second Semester**
- International Institutions
- Turkish Political Life and Principles of Kemalism
- Sociology of Organisations
- Comparative political Systems
- Social Relations and Labor Law
- Methodological Workshop on Social Change and Sociological Research
- Area Elective
- Opt. Language Elective
Junior Year

For those specializing in Communication and Finance

First Semester

- International Public Law
- International Economics
- Methodological Workshop on Statistics and Computers
- Money and Credit
- Area Elective
- Opt. Language Elective

Second Semester

- International Institutions
- Turkish Political Life and Principles of Kemalism
- Sociology of Organisations
- Financial Management
- International Monetary Systems and Financial Institutions
- Methodological Workshop on Marketing I
- Area Elective
- Opt. Language Elective

Senior Year

For those specializing in Economics and Finance

First Semester

- European Politics
- Control of Management
- Marketing
- Law of International Affairs
- Research Methods and Preparation of Undergraduate Thesis
- Methodological Workshop on Enterprise Strategies
- Political Economy
- Opt. Language Elective
- Area Elective

Second Semester

- Geopolitics on Contemporary World
- Turkish Foreign Policy
- Financial Analysis of an Enterprise
- Multinationals and Mondialisations of the Economy
- Undergraduate Thesis
- Opt. Language Elective
- Area Elective
Senior Year

For those specializing in Communication and Human Resources

First Semester

European Politics
Religion and Politics
Research Methods and Preparation of Undergraduate Thesis
Methodological Workshop on Enterprise Strategies
Political Economy
Personnel Management
Opt. Language Elective
Area Elective

Second Semester

Geopolitics on Contemporary World
Turkish Foreign Policy
Multinationals and Mondialization of the Economy
Political Communication
Methodological Workshop on Corporate Communication
Undergraduate Thesis
Opt. Language Elective
Area Elective

Elective Courses

Contemporary Islamic Thought
Business Ethics
Women Studies
Main Contemporary Debates
Accounting
Army and Politics
Themes and Debates on Modern Democracy
Turkic World and Central Asia
Environmental Politics
Social Change and the Press
Modernization in Arabic Countries
Politics of Culture
Japan

* Opt*: Optional languages are English, Spanish and Russian.

COURSE DESCRIPTIONS

Introduction to Political Science: Definition and fundamental principles of political science, constitutions, major political systems, political parties, pressure groups, freedom and rights.

General Sociology: Introduces students to the subject matter, major concepts, and theoretical approaches of sociology. Includes analysis of the works of both classical and modern theorists, such as Auguste Comte, Alexis de Tocqueville, Karl Marx, Emile Durkheim, V.ilefredo Pareto, Max Weber.

Comparative Constitutional Law I - II: Comparative study of constitutional law models in different states.
Introduction to Law: Social life and law. Definitions and concepts. Division of public and private law. Presentation and comparison of the basic principles of Turkish and French law such as the sources of law, the juridical acts, and liability.

Introduction to Economics: Introduction to the basic points in economics.

History of Political Ideas I-II: The development of political thought in the ancient and medieval periods and the emergence of a distinctively modern political outlook. Topics considered include: The origins, functions and purposes of the city state, the conflict between Church and state, the rise of the modern Theory of sovereignty, the state of Nature and the social contract, political Theories of the American and French revolutions.

Social Psychology and Communication: Historical review of the social psychology and its relationship to psychology, sociology and ethnology. The analysis of the fundamental subjects: Individuial and culture, attitudes, person perception, individual behavior in social situations, interpersonal relations and communication, groups individual behavior, problems of collective psychology.

Turkish Constitutional Law: Establishment of the legislative, executive and judicial powers and regulations on the fundamental rights and freedoms in the Constitution of 1982. The relationships between the legislative and executive powers.

Methodological Workshop on Constitutional Law: Presentation of the basics of constitutional law: State, constitution, democracy, the theory of the separation of powers, the political parties and the political regimes.

Methodological Workshop on Social Sciences: The theoretical background of social sciences. Definitions, methods and revolutions. A study of basic methods, different approaches such as functionalism, individualism, interactionism, ethnomet hodology.


Methodological Workshop on Economics I: The course is an introduction to the basic points in economics (supply, demand, markets and equilibrium) as well as a presentation of the main macroeconomic issues from the simple point of view of a closed economy. Attention is focused on housing (consumption) and firms (instruments).

Political Sociology: Functional definition of politics: Analysis of conflict and integration functions of politics in the context of social stratification, political culture and political institutions.

Microeconomics: Introduction to microeconomic concepts and theories and analysis of: demand, production, price, markets, goods and consumer behavior.

Statistics and Research Techniques: Introduction to statistical models and basic research techniques.

Methodological Workshop on Management: Basic concepts and principles of management. The functions of planning, organizing, staffing, directing and controlling and their relationships to key issues in management practice such as leadership, motivation.


International Institutions: General theories of international organizations, their structure, and peaceful settlement, of inter-state disputes by international institutions. Universal organisations. Specialised and regional organisations and their classifications. Institutions of European Community.


Methodological Workshop on Social Change and Sociological Research: The main objective of this workshop is to give possibility and initiative to students themselves in mastering a sociological research project. The central theme: Universality versus particularity, mainly in music, democracy, new urban communities, religion, and art.

Religion and Politics: This course is a study of thoughts on religion and politics of some prominent figures from 16th to 20th century. Religion has an absolute superiority on politics. Priority of politics on religion/complete separation between religion and politics. These approaches go beyond the historical and cultural context in which they were elaborated and constitute a theoretical model in analyzing contemporary debate on laicism.
Money and Credit: Money, commercial banking and other financial intermediaries including central banking; Monetary theory, monetary and financial mechanisms; mechanisms of financial market and monetary power of the banks, central bank; monetary policy, monetary economics and economic growth.

Methodological Workshop on Economics II: A presentation of the main debates in contemporary economics; theories of consumption, inflation, unemployment dilemma; growth and crisis; the state intervention issue.

Turkish Administrative Law: Structure of the Turkish Administration; functions of the administration (public service, police power); legal regime for public domain; public servants, administrative judiciary (courts - functions - procedure).

Public Finance: This course aims to provide students with the basic tools of public finance. The fundamental features of public goods constitute the basis of the first part of the course. According to the traditional approach study of the resource allocation effect of public economics, the distributional aspects of those tools and the stabilization impact of fiscal policy.

Social Relations and Labor Law: Historical background of social relations. Legal aspects of employee and employer relationship. Trade unionism in general and Turkish labor movement: Legal rules regulating bargaining, strikes, lockouts, working hours, insurance, indemnity etc. Employment and assurance.

Comparative Political Systems: Politics and society. Comparative analysis of political parties, parliaments, presidents and governments in different political regimes.


Methodological Workshop on Written Expression: The purpose of this class is to teach the students the basics of written expression, from exercises on the techniques of the résumé and letter of application, the essay, commentary and the contraction of texts.
Methodological Workshop on Oral Expression: Course essentially focuses on the oral presentation. Training is given with the help of the video tool, in small units of 12 students.

Geopolitics of Contemporary World: Balance of powers, in postwar era in the world, fall of Soviet system, principal points of conflict in the world of today, the Balkans, the Middle East, Caucasia.

Methodological Workshop on Marketing I-II: The purpose of this course is to deal with the most essential notions of marketing. First of all, it takes successively into account the definitions of costumer segmentation, positioning of a product and marketing mix (and its components: product, price, promotion, trade channels). After these notions being deeply explained, the second part of the courses focuses on the strategical aspects of marketing.

Introduction to Management: This introductory course to management focuses on the company and what turns around it such as the means it possesses, the needs it has to satisfy, the different kinds of functions it has and some classifications of the companies.

Political Philosophy: A systematic study of fundamental questions and concepts concerning human society and political institutions, distributive justice, equality, sovereignty, law, liberty and political obligation.

Contemporary History: A survey of major political facts and issues of Western World from the 18th century to the present.

Turkish Political Life and Principles of Kemalism: The development of the political and social system from Ottoman period to the present with special emphasis on the single and multi-party system.

Methodological Workshop on Political Science: After a methodological and epistemological introduction on the scientificity of the social sciences, different topics and concepts are approached with the students: State, nation, nationalism, religion and politics, democracy, new world order. This conference is based on texts and articles and involves, for the students, a critical analysis, a résumé or the working out of detailed plan. Every week a report on the political, economical or social (national and international) actuality is required.

Methodological Workshop on Computers and Information

Processing: The content of the course is an introduction to DOS to make the students familiar with computer and the usage of LOTUS 123 which is frequently used in business life. The students learn the theoretical parts of the course while they have the opportunity to practise them simultaneously in the computer. Furthermore, by the end of the semester, a brief knowledge of word processing will be given, by using PW.
International Public Law: Definition of public law: Distinction between international relations, international society. International public and private law; historical development and sources of international public law: voluntarist and objectivist theories; the state as the subject; the place of international law in Turkish law; convention of Wien; article 38 of CIJ; their conclusions in Turkish juridical system.

Financial Management: Examination of special problems in finance. Financial analysis and control, financial planning, special financial management problems in Turkey and less developed economies. A largely quantitative approach is used in the course.

European Politics: Definitions of Europe being European, state -nation/nationalism, integration, cooperation, common policies. European law. Study of policies: Monetary, economical, fiscal, social, regional, industrial...


Research Methods and Preparation of Undergraduate Thesis: A survey of philosophical bases and goals of social research. Quantitative and qualitative research methods. General problems of measurement, data collection technics, analysis, and interpretation of social science data.

Political Communication: Defining of political communication, action, actor, social movements, political society, political system, political regime... Different approaches and theories. The actors of political communication. Political violence. Case study: Turkish political history, identities problem, Islam, elections...


Methodological Workshop on Turkish Society: Analysis of Turkish society: Demographical characteristics, agriculture, industry, employment, monetary policies, inflation, structures and problems of primary and secondary schools, universities, familial structures, Young Turks profiles, socio-professional categories, pressure groups, bureaucrat and human relations in Turkish administration, social law, syudent and collective conventions, organisation of public military service, redistribution of revenue, regional development, mass communication, literature, cultural identity problems, history of political development.

Information and Communication: Communication process: Signal, information, message; transmitter, receiver, channel and code. Principal empirical researches on mass communication: paradigm of effects and reception. Power of mass media: Media and society; culture, mass culture, popular culture and hegemony. Society of communication: New communication technologies, networks, postmodernity, new proximities.


Turkish Foreign Policy: A study of Turkish foreign policy. Definition of some international concepts. An analysis of Turkish foreign policy since the passage from Ottoman Empire to Turkish Republic in the context of political development and change (national and international).


Political Economy: The evolution and improvement of the tools of economic phenomena within a historical perspective; pre-scientific economic thought of Mercantilism; reactions to Mercantilist system of thought; beginning of scientific thought of Mercantilism; reactions to Mercantilist system of thought; beginning of scientific thought and the Physiocrats; development of liberalism and A. Smith; economic systems of Malthus and Ricardo; development of industrial capitalism and Marxian political economy. The law of value and the theory of surplus value; subjectivist trend in economics; Walrasian and Marshallian economics.


Control of Management: Management in complex organisations and control techniques.
DEPARTMENT OF PUBLIC FINANCE

Hed of Department : Prof. Dr. Ömer Faruk BATIREL
Professors : Ömer Faruk BATIREL, Turgay BERKSOY, Adnan TEZEL, Orhan ŞENER
Associate Professors : Mehmet Ali ÖZBUDUN, Dilek YILMAZCAN, Ayşegül MUTLU
Assistant Professors : Bumin DOĞRUSÖZ, Ayşe GÜNER, İ. Veysi SEViĞ, İnci USER

Language of Instruction: Turkish

The Department of Public Finance offers an eight semester program aiming to specialize in the central issues of public finance. Main courses consist of the theory of public finance, fiscal policy, tax laws, tax accounting, public budget, public debt and the Turkish tax system. There are also several supporting courses in the fields of law, economics, statistics, accounting, business management, banking and sociology. All courses are compulsory excluding Fine Arts and foreign language courses which comprise of English, French and German.

UNDERGRADUATE PROGRAM

Freshman Year

First Semester

Mathematics I
Introduction to Economics I
Introduction to Law
Introduction to Business Management
Physical Ed./Art
Sociology
Atatürk Principles I
Foreign Language*

Second Semester

Mathematics II
Introduction to Economics II
Financial Mathematics
Introduction to Constitutional Law
Accounting
Administrative Law
Turkish
Physical Ed./Art
Atatürk Principles II
Foreign Language

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### Sophomore Year

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<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>Accounting</td>
<td>Law of Obligations</td>
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<tr>
<td>Business Administration</td>
<td>Statistics</td>
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<tr>
<td>Civil Law</td>
<td>Theory of Public Finance</td>
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<tr>
<td>Microeconomics</td>
<td>Inventory Balance</td>
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<td>Theory of Public Finance</td>
<td>Administrative Law</td>
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<td>Administrative Law</td>
<td>Macroeconomics</td>
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### Junior Year

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<tr>
<th>First Semester</th>
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<tr>
<td>Cost Accounting</td>
<td>International Economics</td>
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<tr>
<td>Commercial Law</td>
<td>Turkish Tax System</td>
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<tr>
<td>Int to, Computer and Programming I</td>
<td>Int. to Computer and Programming II</td>
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<td>Tax Law</td>
<td>Public Debt</td>
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<td>Public Budget</td>
<td>Financial Analysis Techniques</td>
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<td>Environmental Economics</td>
<td>Commercial Law</td>
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<td>Public Economic Enterprises</td>
<td>Labor Law</td>
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<td>Sociology of Public Finance</td>
<td>Firm Accounting</td>
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<td>Business Management Accounting</td>
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<td>Financial Management</td>
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### Senior Year

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<th>First Semester</th>
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<tbody>
<tr>
<td>Auditing</td>
<td>Turkish Tax System II</td>
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<td>Turkish Tax System I</td>
<td>Development Economics</td>
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<tr>
<td>Turkish Economy</td>
<td>Fiscal Policy</td>
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<tr>
<td>Tax Accounting</td>
<td>Foreign Trade Accounting</td>
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<tr>
<td>Business Management Taxation</td>
<td>Banking</td>
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<td>Extra Budgetary Funds</td>
<td>Economic Systems</td>
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<td>Economic Doctrines</td>
<td>Law of Social Security</td>
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<td>Finance of Local Governments</td>
<td>Tax Jurisdiction</td>
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<td>Tax Practice and Problems</td>
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<td>Capital Market</td>
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Foreign language courses (English, French and German) are compulsory only for the freshman year and elective for the following years and each are given 3 hours/week.
COURSE DESCRIPTIONS

Fiscal Policy: An economic analysis of tax, expenditure and borrowing (domestic and external) policies within alternative macro-economic approaches; with an emphasis on developing countries in general, and on Turkey in particular.

Mathematics: Sets, relations and functions, linear functions and business economic applications, limits and continuity, derivative and applications, sequences, functions of more than one variable, matrices, linear equations.


Financial Management: Financial management and goals on business, what is financial analysis, cost of capital and capital structure decisions, working capital management. On the theory of optimal investment decisions: (a) Static evaluation (b) dynamic evaluation, financial planning.

Capital Market: Financial market, features of capital market in Turkey, sources of capital market, terms of capital market, dividend distribution policy. Methods of stock evaluation: (a) Methods of basic analysis evaluation (b) methods of technic analysis evaluation, methods of bond evaluation, security analysis and portfolio management.

Macroeconomics: Scope and basic concepts of macroeconomics; national income accounting, classical macro theory and policy; Keynesian macro theory and policy; theory of inflation.

Introduction to Economics: Definition and scope of economics with special reference to the concept of “needs”. Capitalism, what is it? How it works? Comparison of the views of main schools of thought on capitalism. Profit theories, sources of profits, introduction to crisis theories.

Administrative Law: Definition of Public Administration, the administrative function, the quality of administrative law, the sources of administrative law, the concept of legality in public administration (the rule of law principle) The power of discretion of the administrative authorities and its limits, principles governing the Turkish administrative system; the tasks of the public administration; decision-making in public administration, types, functions and limits of administrative decisions, administrative contracts, the organization of the Turkish administration, central government, self-government and local government administration.

Labor Law: Historical development of labor law, basic concepts, the scope of labour act, labour contract, severance pay, work hours, holidays with pay, trade unions, collective bargaining, strike and lockout.

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Law of Social Security: Social security concept, historical development of social security, scope of social insurance act, work injury and occupational sickness insurance, sickness insurance, maternity insurance, invalidity, old-age and survivors insurance, conditions to qualify for the benefits, calculation of the benefits.

Banking: This course covers the subjects directly related to the banking as a whole. The main goal is to state the characteristics and the legal structure of banking operations as well as the peculiarity of banking not only from the point of view of bank-depositor relations, but also from the point of view of the banks and their state control authority relations.

Statistics: The population, the frequency distribution, the arithmetic mean, the median and the mode, measuring variability in populations, statistical estimation, regression and correlation analysis, time series analysis, index numbers.

Introduction to Constitutional Law: In general (a general view to the development of Constitution in Turkey), basic characteristics of the 1961 Constitution, basic characteristics of the 1982 Constitution, qualities of the republic. Functions of the government and procedures of the civil law: (a) Constitutive power (b) separation of powers (c) procedures of parliament. Structure of cabinet and competences of president of the republic. Functions of the judgement.

Inventory and Balance Sheet: Inventory and balance sheet, the inventory and valuation of current assets; inventory and valuation of fixed assets; the inventory and valuation of short-term and long-term debts; the inventory and valuation of equity-capital accounts; the inventory and valuation of expense and revenue accounts; profit and loss account; trial balance, balance sheets, an illustration covering all subjects mentioned.

Accounting: The functions of accounting, the recording methods; debit and credit; debit and credit entries in accounts. The classification and explanation of account. Financial statements, the balance sheet, the income statement, the trial balance, the ledger, the journal and subsidiary ledgers. Record keeping, working on the formal journal and ledger. Receivables and liabilities, inventory accounting fixed assets, adjustments for accrued revenue and expense, adjustments for revenue and cost apportionments. Chart of accounts, accounting documents and forms. Explanation of some tax-accounting subjects.

Financial Mathematics: The concept of interest in terms of income and cost, and decision-making. Simple interest operations according to their terms and kinds. The concept of discount, loan transactions withhort maturities, promissory notes, discount transactions. The discount methods in practice and comparisons of methods. Consolidation of debts and exchange of promissory notes (identity). Compound interests, financial transactions with long maturities. Introduction to investment evaluation operations.

trade policy: Trade restrictions; tariffs, non-tariff barriers and the new protectionism, economic integration: Customs unions. International monetary theory: Balance of payments, foreign exchange markets, adjustment process.

Management: Concept of management. Managerial approaches. The functions of management.


Turkish Economy: In part one macroeconomic aspects of the Turkish economy are taken up, such as national income and growth over periods, investments and savings, employment and unemployment, the practice of market economy, development planning, balance of payments, Turkey's international economic relations and the outward-orientation of the Turkish economy as well as the geographic and demographic structure of the Turkish economy, and its major sectors, including agriculture, manufacturing industry, mining, energy, transportation, housing construction, tourism and the banking sector.


Finance of Local Governments: The first part of the course examines the relation of local governments with the sciences of law, economics and political science; the relations of these institutions with the central government, the division of services
and sources with examples from recent practice. The second part consists of local
governments in Turkey, their types, their finance and their problems.

**Foreign Trade Accounting:** History of foreign trade. Sale types in foreign trade.
Payment types in foreign trade. Turkish foreign trade regime, exchange regulations.
The accounting plan for trade firms and related accounting operations. Import and
export transactions and relevant records.

**Theory of Public Finance:** Fiscal functions of the state. Theory of public goods.
Public expenditures. Introduction to taxation. Principles of taxation. Breakdown of
taxes. Income, wealth and consumption taxes.

**Company Accounting:** Company definition in Turkish Law. The subject of compa-
ny accounting. Limited and unlimited partnerships, corporations, profit distribution,
equity raising, dissolving, merging and relevant records. Various practices.

**Public Debt:** Public debt: Internal and external public debt. Structure of public debt.
Burden on future generations. Internal and external public debt in Turkey Debt ma-
agement. Debt policy.

**International Public Finance:** International resource allocation. International in-
come distribution. Introduction to tax coordination. Coordination of income and pro-
fit taxes: Efficiency aspects, balance of payments aspects. United Nations, NATO,
EC.

**Public Budget:** The basic functions of budgeting. National budget. Budgeting sys-
tems: Traditional budgeting system, performance budgeting system, planning, pro-
gramming budgeting system, zero base budgeting system. Budget process. Budget
policy.

**Financial Analysis Techniques:** Topics related to financial analysis are very close
to the other branches of accounting and finance. It has been tried to make restric-
tions as much as possible from this point of view. For that reason, financial state-
ments (balance sheet, income statement and other financial statements), general re-
view of financial statements (preparation of balance sheet and income statements to
analysis, analysis methods), analysis of financial statements, fond flow and net wor-
kling capital statements and their analyses; valuation of analysis results and reporting
topics have been examined as major chapters related to financial analysis.

**Turkish Tax System:** In this course the following taxes with all their characteristics
(concept of the tax, tax liability, exemptions and exceptions, assessment of the tax
etc.) have been examined: Income tax, corporation tax, value added tax, stamp tax,
land and building taxes and other taxes.

**Commercial Law:** Introduction to commercial law, company law, such as joint
Economic Systems: This course aims at examining retrospectively major economic systems: Liberalism, socialism and capitalism. The first part of the course is devoted to the definitions of systems, emergence of economic systems and the relations and interactions among society, systems and economics. The second part of the course studies liberalism, socialism and capitalism. The last part of the course covers the comparison of the three systems.

Development Economics: This course provides training in a) historical origin of economic development, b) understanding the national/international linkages in development process, c) development strategies and models in development process.
7. FACULTY OF ENGINEERING

Dean : Prof. Dr. Nüket YETİŞ
Assistant Dean : Prof. Dr. Mehmet Akif EYLER
Assoc. Prof. Dr. Kemal FİDANBOYLU

The Faculty of Engineering was founded in 1987 and four-year undergraduate programs leading to the degree of Bachelor of Science in Computer, Environmental and Industrial Engineering were started in 1990. Post-graduate programs in these department and in Engineering Management are administered by the Institute of Technical Sciences. Education language is English.

Engineering is the profession devoted to development, design, construction and operation of the structures, machines and other devices and systems of industry and everyday life. Engineers apply, with judgement, the knowledge of the mathematical and natural sciences gained by study, experience, and practice to develop ways to utilize economically the materials and forces of nature for the benefit of mankind and society. Engineers must be capable of identifying the knowledge and information they need for solving professional problems and know where to locate the relevant knowledge and information.

The curriculum of the Faculty of Engineering is designed to incite and evolve engineering intelligence and reasoning of the students and develop their capability for handling engineering problems and undertaking research.

The undergraduate curricula of the departments conform to a common framework of 45 courses and 144 credit-hours divided into three categories:
(1) 16 courses All freshman and sophomores follow a common core program of 16 courses on basic, engineering and computer sciences. (2) The students take 21 courses from their departments including specialization option courses, technical electives, senior project, a summer course and non-credit summer training. (3) Eight non-technical courses cover social and economic sciences and humanities.

The programs incorporate extensive use of computers not only in course work but also in improving engineering analysis and design skills of students. Throughout the academic process students are encouraged to develop their initiative and motivation as well as responsibility and dedication to professional ethics.

In addition to the laboratories of the departments excellent research facilities have been organized in interdisciplinary Computer Integrated Manufacturing Center, Instrumental Analysis Laboratory and Solar Energy Power Station. In addition to teaching and research, faculty members conduct contract research and offer continuing education services, special training programs, testing and consulting services to industry.

Three departments have been formally established, with some faculty members assigned, but they have not started an undergraduate program yet. These are Department of Electrical and Electronics Engineering, Department of Chemical Engineering and Department of Mechanical Engineering.

**COMPULSORY CORE COURSES FOR ALL ENGINEERING UNDERGRADUATE STUDENTS**

1) BASIC, ENGINEERING AND COMPUTER SCIENCE COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>CHEM 101</td>
<td>General Chemistry I</td>
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<tr>
<td>CHEM 102</td>
<td>General Chemistry II</td>
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<td>PHYS 101</td>
<td>Physics I</td>
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<td>PHYS 102</td>
<td>Physics II</td>
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<td>PHYS 201</td>
<td>Physics III</td>
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<td>MATH 151</td>
<td>Calculus I</td>
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<td>MATH 152</td>
<td>Calculus II</td>
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<tr>
<td>MATH 253</td>
<td>Linear Algebra and Differential Equations</td>
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<tr>
<td>CS 101</td>
<td>Introduction to Computers</td>
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<td>CS 102</td>
<td>Algorithms and Programming</td>
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<td>ES 101</td>
<td>Engineering Drawing and Computer Graphics</td>
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<td>ES 211</td>
<td>Applied Mechanics</td>
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<td>ES 212</td>
<td>Strength of Materials</td>
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<td>ES 221</td>
<td>Introduction to Materials Science</td>
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<tr>
<td>ES 251</td>
<td>Statistics</td>
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<td>Numerical Analysis</td>
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2) NON-TECHNICAL COURSES AND ELECTIVES

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<td>Engineering Orientation</td>
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<td>ECON 202</td>
<td>Economics for Engineers</td>
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<td>ELAW 203</td>
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<td>Engineering Economy</td>
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<td>NTE I</td>
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<td>Law for Engineers</td>
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<td>Non-technical Elective IV</td>
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DEPARTMENT OF COMPUTER ENGINEERING

Head of Department : Prof. Kılıçaslan AYTAÇ
Associate Professors : Ensar GÜL
Instructors : VardarÇOBANOĞLU

Language of Instruction: English

The Department of Computer Engineering offers various courses in the areas of programming languages, microprocessors, computer architecture, operating systems, database systems, software engineering and computer networks. These courses are proceeded by a group of courses which provide the basic engineering knowledge for the student.

UNDERGRADUATE PROGRAM

Freshman Year

First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Code</th>
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<tbody>
<tr>
<td>CHEM</td>
<td>101</td>
<td>General Chemistry I</td>
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<tr>
<td>PHYS</td>
<td>101</td>
<td>Physics I</td>
</tr>
<tr>
<td>MATH</td>
<td>151</td>
<td>Calculus I</td>
</tr>
<tr>
<td>CS</td>
<td>101</td>
<td>Introduction to Computers</td>
</tr>
<tr>
<td>ENG</td>
<td>100</td>
<td>Engineering Orientation</td>
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<tr>
<td></td>
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<td>Turkish History</td>
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Second Semester

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<tr>
<th>Course</th>
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<tr>
<td>CHEM</td>
<td>102</td>
<td>General Chemistry</td>
</tr>
<tr>
<td>PHYS</td>
<td>102</td>
<td>Physics II</td>
</tr>
<tr>
<td>MATH</td>
<td>152</td>
<td>Calculus II</td>
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<tr>
<td>CS</td>
<td>102</td>
<td>Algorithms &amp; Programming</td>
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<tr>
<td>NTE</td>
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<td>Non-technical Elective I</td>
</tr>
<tr>
<td>CSE</td>
<td>200</td>
<td>Computer Engineering Concepts</td>
</tr>
<tr>
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<td>Turkish History</td>
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<td>History</td>
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### Sophomore Year

**First Semester**

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<th>Course</th>
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<tbody>
<tr>
<td>PHYS</td>
<td>201</td>
<td>Physics III</td>
</tr>
<tr>
<td>MATH</td>
<td>253</td>
<td>Lin. Algebra &amp; Diff. Equations</td>
</tr>
<tr>
<td>ES</td>
<td>251</td>
<td>Statistics</td>
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<tr>
<td>CSE</td>
<td>201</td>
<td>Pascal Programming Language</td>
</tr>
<tr>
<td>ECON</td>
<td>201</td>
<td>Economics For Engineers</td>
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**Second Semester**

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<thead>
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<th>Course</th>
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<tbody>
<tr>
<td>ES</td>
<td>211</td>
<td>Applied Mechanics</td>
</tr>
<tr>
<td>ES</td>
<td>221</td>
<td>Intro. to Material Science</td>
</tr>
<tr>
<td>ES</td>
<td>254</td>
<td>Numerical Analysis</td>
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<tr>
<td>CSE</td>
<td>224</td>
<td>Data Structures</td>
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<tr>
<td>CSE</td>
<td>232</td>
<td>Machine Level Programming</td>
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<td>ECON</td>
<td>202</td>
<td>Engineering Economy</td>
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**Summer Course**

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<tbody>
<tr>
<td>CSE</td>
<td>300</td>
<td>Summer Practice</td>
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<td>(6 Weeks - Non Credit)</td>
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### Junior Year

**First Semester**

<table>
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<th>Course</th>
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<tbody>
<tr>
<td>ES</td>
<td>212</td>
<td>Strength of Materials</td>
</tr>
<tr>
<td>CSE</td>
<td>315</td>
<td>Digital Design</td>
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<tr>
<td>CSE</td>
<td>317</td>
<td>Electronics</td>
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<tr>
<td>CSE</td>
<td>327</td>
<td>File Organization Techniques</td>
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<tr>
<td>CSE</td>
<td>335</td>
<td>Operating Systems I</td>
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<tr>
<td>NTE</td>
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<td>Nontechnical Elective-II</td>
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**Second Semester**

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<thead>
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<th>Course</th>
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<tbody>
<tr>
<td>CSE</td>
<td>316</td>
<td>Computer Organization</td>
</tr>
<tr>
<td>CSE</td>
<td>322</td>
<td>Principles of Programming</td>
</tr>
<tr>
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<td>Languages</td>
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<tr>
<td>CSE</td>
<td>324</td>
<td>Database Systems</td>
</tr>
<tr>
<td>CSE</td>
<td>336</td>
<td>Operating Systems II</td>
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<tr>
<td>CSE</td>
<td>342</td>
<td>Software Engineering</td>
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<tr>
<td>ELAW</td>
<td>203</td>
<td>Laws for Engineers</td>
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<td></td>
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<td>Summer Course</td>
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<tr>
<td>CSE</td>
<td>400</td>
<td>Summer Practice</td>
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<td>(6 Weeks)</td>
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### Senior Year

**First Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>CSE</td>
<td>413</td>
<td>Microprocessors</td>
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<tr>
<td>CSE</td>
<td>421</td>
<td>Compiler Design</td>
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<tr>
<td>CSE</td>
<td>451</td>
<td>Data Communication and Networks</td>
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<tr>
<td>CSE</td>
<td>491</td>
<td>Engineering Project</td>
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<tr>
<td>NTE</td>
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<td>Nontechnical Elective-III</td>
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**Second Semester**

<table>
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<th>Course</th>
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<tbody>
<tr>
<td>CSE</td>
<td>462</td>
<td>Artificial Intelligence and Expert Systems</td>
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<tr>
<td>TE</td>
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<td>Technical Elective</td>
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<tr>
<td>TE</td>
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<td>Technical Elective</td>
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<td>NTE</td>
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<td>Non-technical Elective-IV</td>
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TECHNICAL ELECTIVES

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<tr>
<th>Code</th>
<th>Course</th>
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<tbody>
<tr>
<td>CSE 415</td>
<td>Computer Aided (Hardware) Design</td>
</tr>
<tr>
<td>CSE 417</td>
<td>Parallel Computer Architectures</td>
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<tr>
<td>CSE 418</td>
<td>VLSI Circuit Design</td>
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<tr>
<td>CSE 423</td>
<td>Object-Oriented Programming</td>
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<tr>
<td>CSE 424</td>
<td>Algorithm Design and Analysis</td>
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<td>CSE 433</td>
<td>Distributed Systems</td>
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<td>CSE 435</td>
<td>Systems Programming</td>
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<td>CSE 440</td>
<td>Information Systems Analysis and Design</td>
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<td>CSE 442</td>
<td>Software Project Management</td>
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<td>CSE 443</td>
<td>CASE: Computer Aided Software Engineering</td>
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<td>CSE 445</td>
<td>Management Information Systems</td>
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<td>CSE 458</td>
<td>Neural Networks</td>
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<td>CSE 463</td>
<td>Computer Graphics</td>
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<td>CSE 464</td>
<td>Modelling and Simulation</td>
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<td>CSE 465</td>
<td>Pattern Recognition and Image Processing</td>
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<td>CSE 466</td>
<td>Robotics</td>
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<td>CSE 467</td>
<td>Multimedia Systems</td>
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<tr>
<td>CSE 490</td>
<td>Special Topics in Computer Engineering I</td>
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<tr>
<td>CSE 493</td>
<td>Special Topics in Computer Engineering-II</td>
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<tr>
<td>CSE 494</td>
<td>Special Topics in Computer Engineering-III</td>
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<tr>
<td>CSE 495</td>
<td>Seminar in Computer Engineering-I</td>
</tr>
<tr>
<td>CSE 496</td>
<td>Seminar in Computer Engineering-II</td>
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<tr>
<td>CSE 497</td>
<td>Seminar in Computer Engineering-III</td>
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COURSE DESCRIPTIONS

CSE 201 Pascal Programming Language: Input/Output and problem solving top-down design, selection, looping, recursion, procedures and functions, data types, arrays, records and files.

CSE 224 Data Structures: Basic data types and structures. Stacks, queues, lists, trees, graphics and structures. Dynamic storage allocation, garbage collection, compaction and search/sort algorithms.

CSE 316 Computer Organization: Introduction to the gate, register, processor designs. Control design theory and system organization concepts. Instruction sets, fixed-point arithmetic, hardware and microprogrammed control, memory technology, virtual and high-speed memories.

CSE 315 Digital Design I: Computer operation, number systems, Boolean algebra and gate networks, logic design, arithmetic logic unit, memory element, input-output devices, buses and interfaces, control unit. Use of basic electronic instruments, lo-
logic probes, logic analyzers, oscilloscopes, basic combinational and sequential circuits, flip-flops, counter, shift registers, individual design projects.

**CSE 322 Principles of Programming Languages:** Organization of programming languages emphasizing language design concepts and run time implementation. Study of major languages such as FORTRAN, ALGOL, PASCAL, etc.

**CSE 324 Database Systems:** Hierarchical and relational database models. Design and translational strategies. Database organization and access methods. The design and implementation of simple DBMS with a simple query language.

**CSE 327 File Organization Techniques:** Logic and physical organization of files. Random accessed, sequential and indexed files. File management and file control systems.

**CSE 335 Operating Systems I:** Classification and structure of operating systems, introduction to hardware and software components including microprocessors, peripherals, interrupts, process and memory management, file systems, deadlocks, protection, virtual machines.

**CSE 336 Operating Systems II:** Laboratory course emphasizing the practical issues of operating systems design and implementation. Individual and group projects.

**CSE 342 Software Engineering:** Planning a software project. Software cost estimation, software requirements definition. Software design and implementation. Modern programming language features. Verification and validation techniques and maintenance. Information Systems Design and CASE TOOLS.

**CSE 413 Microprocessors:** Basic concepts of microprocessors and associated units. Programmable processing and peripherals units. Introduction to microprocessor based systems.

**CSE 421 Compiler Design:** Techniques of parsing. Lexical analysis, top-down and bottom-up parsing techniques, syntax directed translation and code generation.

**CSE 451 Data Communication and Networks:** Basic communication devices and data transmission through land based and satellite systems. Computer networks and technical strategies used in computer networks.

**CSE 462 Artificial Intelligence and Expert Systems:** Representation of knowledge search and traversal, learning and heuristic programming. Computer simulation of human info processing, vision, speech recognition and natural language processing.
DEPARTMENT OF ENVIRONMENTAL ENGINEERING

Head of Department: Prof. Dr. Ahmet M. SAATÇİ
Professors: Ömer Ziya CEBECİ
Assistant Professors: Ömer AKGİRAY, Mehmet Ali YÜKSELEN
Instructors: Dicle Banu ÇATALPINAR, Vahap ATAŞ

Language of Instruction: English

Past unplanned and unconstrained development activities in Turkey have led to serious environmental problems. The realization of the need for sustainable development and minimization of the environmental damage have initiated a demand of qualified environmental engineers who can work in the industry and the regulating authorities.

The program aims to educate engineers who can bring engineering solutions to complex environmental problems. The students are encouraged to work individually and in teams and are expected to develop a broad awareness of the environmental problems and their solutions.

UNDERGRADUATE PROGRAM

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>CHEM 101 General Chemistry I</td>
<td>CHEM 102 General Chemistry II</td>
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<tr>
<td>PHYS 101 Physics I</td>
<td>PHYS 102 Physics II</td>
</tr>
<tr>
<td>MATH 151 Calculus I</td>
<td>MATH 152 Calculus II</td>
</tr>
<tr>
<td>CS 101 Introduction to Computers</td>
<td>CS 102 Algorithms &amp; Programming</td>
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<tr>
<td>ENG 100 Engineering Orientation Turkish History</td>
<td>NTE Non-technical Elective I</td>
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<td>ENVE 200 Engineering Fundamentals &amp; surveying Turkish History</td>
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## Sophomore Year

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<tr>
<td>PHYS 201 Physics III</td>
<td>ES 211 Applied Mechanics</td>
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<td>MATH 253 Lin. Algebra &amp; diff. Equations</td>
<td>ES 221 Intro. to Materials Science</td>
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<td>ES 251 Statistics</td>
<td>ENVE 202 Environmental Eng. Analysis II</td>
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<tr>
<td>NTE Ecology</td>
<td>ENVE 205 Env. Eng. Hydrology</td>
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<td>ENG 300 Summer Practice (Non-Credit)</td>
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## Junior Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tr>
<td>ES 212 Strength of Materials</td>
<td>ENVE 302 Env. Eng. Unit Processes</td>
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<tr>
<td>ENVE 301 Eng. Eng. Unit Operations</td>
<td>ENVE 322 Wastewater Engineering</td>
</tr>
<tr>
<td>ENVE 303 Environmental Eng. Microbiology</td>
<td>ENVE 330 Solid waste Engineering</td>
</tr>
<tr>
<td>ENVE 311 Water Supply Engineering</td>
<td>ENVE 350 Geotechnical Engineering</td>
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<tr>
<td>ENVE 340 Air Quality Control Engineering ECON 202</td>
<td>TE Technical elective I</td>
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<td>ECON 201 Economics for Engineers</td>
<td>Engineering Economy</td>
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<td>ENG 400 Summer Practice (Non-Credit)</td>
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## Senior Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>ENVE 411 Water Engineering Design</td>
<td>ENVE 304 Env. Eng. Instrumental Analysis</td>
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<tr>
<td>ENVE 401 Model. &amp; Computer App. Env. Eng.</td>
<td>ENVE 422 Wastewater Engineering Design</td>
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<tr>
<td>TE Technical Elective II</td>
<td>ENVE 492 Engineering Project</td>
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<tr>
<td>NTE Non-technical Elective II</td>
<td>TE Technical Elective III</td>
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<tr>
<td>ELAW 203 Law for Engineers</td>
<td>NTE Non-technical Elective III</td>
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Specialization Options

Option 1: Water and Wastewater
ENVE 412 Water Quality Control & Industrial Pollution Control
ENVE 413 Inland and Coastal Pollution Control

Option 2: Wastes
ENVE 431 Solid Wastes Systems
ENVE 432 Solid Wastes Analysis

Option 3: Air Pollution Option
ENVE 441 Air Pollution Control Processes
ENVE 442 Advanced Topics in Air Pollution

Option 4: Environmental Engineering Structures Option
ENVE 451 Structural Analysis
ENVE 452 Design of Environmental Engineering Structures

TECHNICAL ELECTIVES
ENVE 402 Environmental Impact Assessment
ENVE 403 Industrial Hygiene
ENVE 404 Advanced Instrumental Analysis
ENVE 405 Hazardous Waste Management
ENVE 406 Planning of Environmental Resources
ENVE 407 Environmental Systems Engineering
ENVE 408 Environmental Management-Concepts, Issues and Processes
ENVE 415 Water Quality Management
ENVE 423 Advanced Wastewater Treatment
ENVE 424 Anaerobic Treatment
ENVE 425 Sludge Treatment & Disposal
ENVE 427 Soil and Ground Water Pollution
ENVE 428 Operation of Treatment Plants
ENVE 429 Land Treatment
ENVE 480 Special Topics in Environmental Engineering
ENVE 490 Environmental Engineering Seminar
COURSE DESCRIPTIONS


ENVE 201 Environmental Engineering Analysis I: Water and wastewater analysis. Evaluation of water and wastewater treatability for the purpose of designing water and wastewater treatment systems. Turbidity, color, standard solutions, pH, acidity, alkalinity, hardness, stability indices, residual chlorine and chlorine demand, chlorination, dissolved oxygen, physical, chemical and biological characteristics of wastewaters, BOD, COD, TOC, TOD, THOD, nitrogen, solids, iron and manganese, fluoride, sulfate, phosphorous and phosphate, grease, volatile acids, gas analysis, trace organics.

ENVE 202 Environmental Engineering Analysis II: The "p" notation, equilibrium diagrams, acidity and alkalinity using log C-pH diagrams, buffering in water systems, solubility equilibria, removal of heavy metals from complex water and wastewater systems, oxidation and reduction equilibria, fundamentals of process kinetics, rector kinetics, surface and colloidal chemistry, colloidal systems, surface charges on colloids, the electrical double layer, solid-liquid interface in adsorption, production of activated carbon, physical versus chemical adsorption, adsorption isotherms, destabilization of colloidal dispersions, coagulation and flocculation, coagulant dose determination, water stabilization, water softening, water neutralization, ion exchange, fluoride removal, iron and manganese removal using log C-pH diagrams. Co.req: ENVE 201

ENVE 204 Environmental Engineering Hydraulics and Fluid Mechanics: Applied hydraulics including pipe and channel flow with design applications in culverts, pumping, water distribution, storm and sanitary sewer systems. Mass diagrams, hydrographs.

ENVE 205 Environmental Engineering Hydrology: Introduction to hydrology and water resources. Water resources distribution, rainfall run-off relations, stream flow beneficial uses of water, population growth predictions and water requirements. The hydrological cycle: precipitation, evapotranspiration, run-off, infiltration, streamflow, floods and groundwater. Statistical hydrology, run-off prediction, hydrograph analysis, frequency analysis and urban hydrology.

ENVE 301 Environmental Engineering Unit Operations: Unit operations in water, wastewater treatment and air pollution. Mass transfer principles applied in environmental engineering. Physical laws of fine suspended matter, particle motion due to gravity, centrifugal electrostatic, thermal forces, diffusion, impaction, screening, sedimentation, thickening, flow through porous media, solids accumulation in porous media, deep bed filtration. Gas transfer, aeration and floatatation. Membrane pro-
cesses, desalination, reverse osmosis, electrodialysis, leaching, evaporation and
drying. Laboratory exercises to demonstrate the unit operations in water and waste-
water treatment.
Prerequisite: Eng. Eng. ENVE 202

ENVE 302 Environmental Engineering Unit Processes: Chemical and biological
unit operations and processes in water and wastewater treatment. Reactor design
principles applied in environmental engineering. Chemical precipitation, coagulation,
flocculation, ion exchange, absorption, chemical oxidation and disinfection; chlorina-
tion, ozonation, UV disinfection. Water softening, oxidation-reduction, corrosion,
composting, combustion, sludge dewatering.
Lab exercises to demonstrate the unit processes in water and wastewater treatment.
Co-requisite: ENVE 301

ENVE 303 Environmental Engineering Microbiology: Microbiological principles,
microbial aspects of environmental pollution control, microbiology of air, classifica-
tion of algae, viruses, bacteria, protozoa and fungi. Substrate assimilation, metabolic
control mechanisms; enzyme kinetics, kinetics of growth in continuous culture, inhi-
bited growth kinetics, biodegradability, metabolic processes involved in aerobic and
anaerobic decomposition, decompositions of carbohydrates, fats and proteins,
hydrolytic, acid-forming, acetogenic, methane-forming bacteria. Rate limiting steps in
anaerobic decomposition. Biodigrahy of hazardous and toxic organic wastes,
microbiological hazards of water supply, microbial corrosion in wells and water sup-
ply systems.

ENVE 304 Environmental Engineering Instrumental Analysis: Introduction to
optical methods of analysis, absorption methods, the absorption of UV and visible
radiation, UV and visible spectrophotometry, flame photometry, atomic absorption
spectrophotometry, fluometry and phosphorimetry, IR absorption, scattering of ra-
diation, emission spectroscopy, flame spectroscopy, X-ray method, polarimetry,
electrochemical methods, potentiometry, potentiometric analysis, membrane elec-
trodes, glass electrodes, liquid membrane electrodes, solid state electrodes, oxygen
electrodes, polarography, coulometry, conductimetry, radioactive techniques, disper-
sion and scattering nephelometry, turbidimetry, mass spectometry, magnetic rezo-
nance spectroscopy, interphase separations, gas chromatography, kinds of detec-
tors, liquid chromatography, solvent extraction, electrical separation methods.
Prerequisite: ENVE 202 Analysis II

ENVE 311 Water Supply Engineering: Water requirements, sources of urban wa-
ter supply; groundwater and surface water. Saltwater intrusion.
Collection of water; infiltration galleries, wells, construction of wells, recharging. Sur-
face water collection, design of water transmission systems, selection of route, di-
menisioning of the conduits, economic pipe diameter, pipe, materials, joints, fittings,
appurtences, valves, special structures. Selection of measurement devices and instrumen-
tation.
Water distribution networks, hydraulic designs, dead-end method, hHrdy Cross me-
thod, computer applications of Hardy-Cross method using personal computers. Sys-
Prerequisite: Env. E. ENVE 204
Corequisite: ENVE 205

**ENVE 322 Wastewater Engineering:** Collection, treatment and disposal of wastewater; Determination of sewage florets, design of sewers, sewer appurtenances, trenching and bedding of pipes. Sewage pumps and pumping stations. Determination of storm water flow rates. Design of storm water systems and appurtenances.
Physical treatment units of wastewater; wet wells, grit chambers, solids removal operations and units, primary sedimentation tanks, sludge and scum pumping, odor control.
Biological treatment units of wastewater; activated sludge processes, trickling filters, rotating biological contactors, aerated lagoons, stabilization ponds.
Treatment and disposal of sludge; anaerobic and aerobic sludge treatment, sludge disposal.
Effluent disposal by dilution. Effluent disposal on land. Consideration to discharge of end products to the environment and possible reuse schemes.
Advanced wastewater treatment.
Prerequisite: Env. E. Hydrology and Hydraulics

**ENVE 330 Solid Waste Engineering:** Basic concepts of solid waste engineering. Designing, evaluating, and operating solid wastes storage, collection and disposal systems; incineration and land disposal methods; air pollution caused due to solid wastes, resources recovery, legal and administrative considerations.


**ENVE 350 Geotechnical Engineering:** Introduction to geotechnical engineering. Soil identification and classification tests, soil structure, soil mineralogy, soil water systems, and interactive forces, principles of settlement, shearing stresses in soils, and shear strength testing; embankments, retaining walls, foundations, piles and underground conduits. Bearing capacity of soils, loads on sewers and pipes due to gravity earth forces.
Co-requisite: Strength of Materials

**ENVE 401 Water Engineering Design:** Application of basic principles in sanitary engineering and hydraulics to the design of water treatment systems: Design life and structural life. Design of physical, chemical and biological treatment processes including coagulation, flocculation, sedimentation, filtration, disinfection, water softening and corrosion control. Plant layout and hydraulic considerations.
Prerequisite: ENVE 311
ENVE 402 Environmental Impact Assessment: Evaluation of impacts on the environment from different technological advances and industrial sites. Study of different national standards.

ENVE 404 Advanced Instrumental Analysis
Prerequisite: ENVE 302

Prerequisite: ENVE 302

ENVE 406 Planning of Environmental Resources

ENVE 407 Environmental Systems Engineering

ENVE 408 Environmental Management-Concepts, Issues and Processes

ENVE 412 Water Quality Control & Industrial Pollution Control: Study of advanced concepts in water treatment. Analysis and application of current developments to water treatment methods. Membrane processes, ion exchange, adsorption, filtration, flow through porous media, disinfection techniques, gas transfer, numerical solution techniques used in water and wastewater treatment. Characterization, treatment and control of wastes arising from different industries. Analytical techniques and treatment processes used in industrial pollution control. Case studies of industrial wastes and their treatment methods.
Co-requisite: ENVE 302

ENVE 413 Inland and Coastal Pollution Control: Pollution control of lakes; biotic components of ecosystems, recycle of nutrients, ecologics of pollutants, limnological aspects, oxygen balance, eutrophication. Disposal of wastes into rivers and estuaries; oxygen balance in streams, self purification, Streeter-Phelps equation, allowable loading, quality control, disposal and dispersion of pollutants. Marine pollution and control; pollutants and their affects, intakes of pollutants, clean-up procedures for oil spills. Design marine outfall systems; dilution and dispersion calculations, trapping levels, hydraulic design of outfalls and diffusers. Stability of marine outfall pipes. Construction of outfalls.
Prerequisite: Hydrology and Hydraulics, env. Eng. II

ENVE 415 Water Quality Management
Prerequisite: ENVE 302

302
ENVE 422 Wastewater Engineering Design: Application of basic principles in sanitary engineering and hydraulics to the design of wastewater treatment systems. Design of a wastewater treatment plant. Plant layout and hydraulic considerations. Design of sludge treatment and disposal systems. Design of lagoons, oxidation ponds, RBC systems. Prerequisite: ENVE 322

ENVE 423 Advanced Wastewater Treatment: Physical, chemical and biological unit operations and processes for advanced treatment of wastewater; air stripping, filtration, distillation, flotation, foam fractionation, freezing, gas phase separation, land application, reverse osmosis, sorption, carbon adsorption, chemical precipitation, ion exchange, electrochemical treatment, electrodialysis, oxidation, reduction, bacterial assimilation, denitrification, algae harvesting, nitrification-denitrification. Prerequisite: ENVE 302


ENVE 427 Soil and Groundwater Pollution
Prerequisite: ENVE 322

ENVE 428 Operation of Treatment Plants: Description of the operation of treatment plants, operation parameters, and troubles encountered in practice.

ENVE 429 Land Treatment: Land treatment of wastewater. Theoretical and practical concepts.

ENVE 429 Land Treatment: Land treatment of wastewater. Theoretical and practical concepts.

ENVE 431 Solid Waste Systems: Methods of solid wastes collection, storage, disposal and resources recovery. Sanitary and economic aspects of the operation
and design and storage, collection and disposal of solid wastes. Advances in solid waste technology. Processing techniques of solid wastes.
Co-requisite: ENVE 330

ENVE 432 Solid Waste Analysis: Physical chemical and instrumental techniques to analyze the composition of solid wastes material. Analysis of toxic, combustible, and organic solid wastes.
Prerequisite: ENVE 330

ENVE 441 Air Pollution Control Processes: Air and gas cleaning equipment, operation of air pollution control processes, settling, precipitation, gas filtration, wet scrubbing, cyclones, inertial separation.
Prerequisite: ENVE 340

ENVE 442 Advanced Topics in Air Pollution: Discussion and reports pertaining to the literature and recent developments in the field of air pollution and their applications.
ENVE 340 Air Quality Control Engineering

Prerequisite: Strength of Materials

Prerequisite: ENVE 451

ENVE 480 Special Topics in Environmental Engineering: Review of current literature and design practice on water, wastewater, water pollution control, solid wastes engineering and management.
Prerequisite: Approval by Instructor

ENVE 490 Environmental Engineering Seminar: Discussion and reports pertaining to the literature and recent developments in the field.
Prerequisite: Approval by Instructor

ENVE 492 Engineering Project
Prerequisite: Approval by Instructor

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DEPARTMENT OF INDUSTRIAL ENGINEERING

Head of Department : Prof. Dr. Sami ERCAN
Professors : Nükhet YETİŞ, Mehmet Akif EYLER
Associate Professors : Linet ÖZDAMAR
Assistant Professors : Ali ALLAHVERDİ, Melek DEMİR HAN, H. Zafer GÜL
Instructors : Baki Sodan, S. Serdar YÖRÜK, Lale ÜLKÜ

Language of Instruction: English

The developments in Turkish Economy has important dimensions from the industrial engineering point of view. Globalization of world economy and the opening of Turkish Economy to foreign markets brought tough competition not only in technology but also in management practice.

Techno-manager capabilities play a very crucial role in the development process of industrializing countries like Turkey. Department of Industrial Engineering at Marmara University aims at developing the human resources necessary in this process.

Today, decision-making problems are of a complex nature, forcing us to approach them scientifically. Industrial engineers are armed with the necessary formation to employ scientific methods in decision-making problems.

The academic program in the Department of Industrial Engineering is concerned with the design, improvement, installation, operation and control of integrated systems of men, materials and equipment. The interdisciplinary nature of the program prepares the student for a decision-making position within the planning, managing and production functions of public and private enterprises and operations. The programs are designed within the framework of modern Industrial Engineering, Operations Research, Technology Management, Quality Management concepts to cope with the requirements of Turkish manufacturing and service systems. The studies involve extensive use of Computers, Ergonomics and Computer Integrated Manufacturing (CIM) laboratory facilities. The major areas covered in the curriculum are production planning and control, materials management and stock control, quality management, investment design and planning, feasibility study, financial engineering, cost and value engineering, methods engineering, time and motion study, CAD/CAM, standardization processes, productivity engineering, information system design, system analysis, management information systems, sales and marketing, support systems etc. Other than these, indus-
trial engineers work in various fields such as technology management, technology transfer, distribution systems and control engineering and in socioeconomic sectors such as health organizations, communication systems, in-city transportation and also in some fields of service sector such as banking, tourism, import and export organizations etc. can be listed.

Marmara University Industrial Engineering Department was established with the Faculty of Engineering in 1990. The teaching language is English, and therefore, the department cooperates with international organizations extensively.

The undergraduate program lasts for 4 (four) years. In the first two years, basic mathematical and science courses are given with introductory courses in engineering and computer sciences. Then, in the third year of the program, the students along with compulsory courses are free to choose different area options in order to specialise in certain fields. The options available to students are operations research, computer integrated manufacturing, quality engineering and engineering technology management.

The education is supported with the laboratory facilities within the Faculty of Engineering. Students can make use of an integrated laboratory including CAD/CAM software and hardware, Quality Control, MRP, Statistics, Production Planning and Control Software.

UNDERGRADUATE PROGRAM
Freshman Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>CHEM 101: General Chemistry I</td>
<td>CHEM 102: General Chemistry II</td>
</tr>
<tr>
<td>PHYS 101: Physics I</td>
<td>PHYS 102: Physics II</td>
</tr>
<tr>
<td>MATH 151: Calculus I</td>
<td>MATH 152: Calculus II</td>
</tr>
<tr>
<td>CS 101: Int. to Comp.</td>
<td>CS 102: Algorithms and Programmm.</td>
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<tr>
<td>ENGR 100: Eng. Orientation</td>
<td>NTE</td>
</tr>
<tr>
<td></td>
<td>Turkish</td>
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<tr>
<td></td>
<td>History</td>
</tr>
<tr>
<td>IE 200: Industrial Engineering Fundamentals</td>
<td>Turkish</td>
</tr>
<tr>
<td></td>
<td>History</td>
</tr>
</tbody>
</table>
## Sophomore Year

### First Semester
- **PHYS** 201 Physics III
- **MATH** 253 Lin. Alg./diff. Eq.
- **ES** 251 Statistics
- **ECON** 201 Economics for Engineers
- **ES** 211 Applied mechanics
- **IE** 300 Summer Practice

### Second Semester
- **ES** 212 Strength of Materials
- **ES** 221 Intro. to Materials Sci.
- **IE** 223 Finance and Accounting
- **ES** 254 Numerical Analysis
- **IE** 232 Operations Research
- **ECON** 202 Engineering Economics

## Junior Year

### First Semester
- **IE** 301 Cost. Acc.
- **MAN** 311 Organization Man. (NTE)
- **CSE** 204 Programming Lang.
- **IE** 325 Prod. Plan. I Cont. I
- **TE** Technical Elective I
- **IE** 351 Stat. for Ind. Eng.
- **IE** 400 Summer Practice

### Second Semester
- **IE** 354 Int. to Stoch. Prog.
- **IE** 324 Ergonomics
- **IE** 326 Prod. Plan. & Cont. II
- **IE** 356 Quality Assurance
- **TE** Technical Elective II
- **ELAW** 203 Law for Engineers

## Senior Year

### First Semester
- **IE** 441 Intro. to mis.
- **IE** 401 Managerial Ecow.
- **IE** 433 Special Topics in OR
- **IE** 434 Simulation
- **NTE** Non-Tech. Elec.

### Second Semester
- **IE** 436 Int. to Proj. Man. and Met. Thed.
- **IE** 490 Engineering Proj.
- **TE** Technical Elective III
- **NTE** Non. Tech. Elec.

## Technical Elective Groups

### Computer Integrated Manufacturing
- **IE** 361 CAD/CAM
- **IE** 362 Computer Aided Engineering
- **IE** 461 Introduction to Cim.
- **IE** 462 Intro. to Manufacturing Sys.

### Operations Research
- **IE** 337 Statistical Sampling Techniques
- **IE** 338 Introduction to Graph Theory
- **IE** 437 Waiting Line Theory
- **IE** 438 Statistical Decision Theory
Engineering Technology Man. | Quality Engineering
---|---
IE 371 Marketing Man. | IE 357 Maintainability and Logistics Engineering
IE 372 Principles of Management | IE 358 Quality Audit. and Plan. For Exp.
IE 471 Technology and R/D Man. | IE 457 Statistical Quality Control
IE 472 Product. and Value Eng. | IE 458 Introduction to Reliability Theory

Other Technical Electives
IE 403 Cost Engineering
IE 408 Wage and Salary Admin.
IE 417 Financial Accounting
IE 418 Managerial Accounting
IE 427 Packaging Engineering
IE 429 Plant Engineering
IE 435 Int. to Game Theory
IE 439 Int. to Forecasting Meth.

COURSE DESCRIPTIONS


IE 223 Finance and Accounting: Principles and techniques of financial accounting; accounting information systems; financial statements. Prerequisite: ECON 201

IE 232 Operations Research: Problem formulation and modelling; linear programming; problem formulation and modelling; simplex method; sensitivity analysis; duality theory; transportation and assignment problems. Prerequisite: IE 200, Math 253

IE 313 Cost Accounting and Engineering Economy: Principles of cost accounting; present value analysis; depreciation and taxes; alternative evaluation; introduction to decision analysis. Prerequisite: IE 223

MAN 311 Organization Management: Organizational design; contingency factors in organizational change; managerial decision-making; behavioural analysis; organization development and management skills.
IE 315 Advanced Programming: Fundamentals of Software Engineering; structured programming, modular programming, functional decomposition, data flow design, programming languages, object oriented programming, functional programming, logic programming; program testing and implementation; software reliability; design of database systems; computer aided software engineering; C programming language; C++ programming language; 4th generation languages.
Prerequisite: CS 101, CS 102

IE 324 Ergonomics: Relationship between man and working environment; human body and physiological functions; anatomy and anthropometry in equipment design; environmental factors.
Prerequisite: MAN 311

IE 325 Production Planning and Control I: Forecasting methods; descriptive and explanatory models; classification of production systems; facility layout & location; single and multi facility location problems; time & motion study; work sampling methods; work design; capacity planning; maintenance function.
Prerequisite: IE 232, ES 251

IE 326 Production Planning and Control II: Inventory management: EOQ models, safetystocks, continuous and periodic review systems; Aggregate production planning: Models with linear costs, dynamic programming and network models, smoothing problems, multi-product and multistage models, operations scheduling, MRP.
Prerequisite: IE 325

IE 327 Statistical Sampling Techniques: Simple random sampling, sampling for proportions and percentages, stratified sampling, ratio and regression estimates, systematic sampling, cluster sampling, sources of error in surveys.
Prerequisite: ES 251

IE 338 Introduction to Graph Theory: Plaths, circuits, trees; planarity and duality; colouring graphs, digraphs matching and covering problems, matroid theory.
Prerequisite: Math 253

IE 351 Statistics for Industrial Engineers: Sampling distributions, point and interval estimation; hypothesis testing; regression and correlation; analysis of variance; nonparametric methods.
Prerequisite: ES 251

IE 354 Introduction to Stochastic Processes: Review of general probability theory; expectation functions, moments, markov chains with discrete spaces, characteristics and limiting behaviour; birth and death processes and their application to queuing theory.
Prerequisite: IE 232, IE 351
IE 356 Quality Assurance: Principles of quality control systems, process control concepts; control charts; acceptance sampling plans; quality costing; modern concepts in control: Total Quality Management, principles and tools, ISO 9000. Prerequisite: IE 232, IE 351

IE 357 Maintainability and Logistics Engineering: Introduction to logistics, logistics in the system life cycle, language of logistics, systems engineering, logistic support, logistics engineering, maintenance level and maintenance concept, producibility, supportability, total productive maintenance, human factors, measures of logistics, system support requirements, functional analysis and requirement allocation, logistics support analysis, logistics in system design, test and evaluation.

IE 358 Quality Auditing and Planning For Experiments: Single factor experiments, randomized blocks, latin squares; factorial designs, confounding, fractional replication, response surface methodology; quality auditing techniques for ISO 9000 Quality Standards; preparing audit procedures; implementation. Prerequisite: IE 351

IE 361 CAD/CAM: Impact of CAD/CAM on product design and manufacturing; CAD/CAM software applications. Prerequisite: Junior Standing

IE 362 Computer Aided Engineering: Introduction to CAD-CAM draughting system, transportation, finite element data preparation, computer aided manufacturing, the use of micros in CAE, workstation analyses, cases and applications in industry. Prerequisite: IE 361

IE 371 Marketing Management: The core concepts of marketing, corporate strategic planning, business strategic planning, managing marketing process, nature and contents of marketing plan, analyzing marketing opportunities, measuring and forecasting market demand, identifying market segments and selecting target markets, designing marketing programs, organizing, implementing and controlling marketing effort. Prerequisite: MAN 311

IE 372 Principles of Management: Introduction to management science, management science characteristics and processes, the role of management science, decision theory, modelling in management science, topics in mathematical programming, introduction to linear programming, simplex method of linear programming, goal programming, transportation and assignment problem, inventory models, queuing models, dynamic programming, break-even analysis, simulation, implementation of management science. Prerequisite: IE 371

IE 401 Managerial Economics: Mathematical models of consumer, firm and market structure; resource allocation, equilibrium analysis. Prerequisite: IE 313
IE 403 Cost Engineering: Quantifying alternatives for easier decision-making, review of present value system, gradient, geometric gradient, comparing alternative proposals, annual payments method of comparing alternatives, rate of return, break-even comparisons, benefit-cost analysis, probability evaluation, project investment evaluations; taxes, depreciation, bond financing, mortgage financing, investment property, utility rate studies, replacement analysis, double arithmetic gradient, inflation.
Prerequisite: IE 313

IE 408 Wage and Salary Administration: Wage payment; bargaining on rates and standards; wage administration, human relations; establishing a wage program.


IE 418 Managerial Accounting: Accounting system, cost-volume-profit analysis, manufacturing costs, relevant costs and special decisions, accounting for planning and control, master budget, flexible budgets and standards for control, cost allocation, profit centers, capital budgeting, taxes and inflation, product costing, quantitative methods, understanding corporate annual reports, financial accounting concepts and techniques.
Prerequisite: IE 417

IE 427 Packaging Engineering: Analysis of consumer behaviour; functional design and value engineering definition of product; quality of packaging materials; sales engineering; product appeal.

IE 429 Plant Engineering: Areas of waste in production systems; rules for reducing materials handling costs; fixed and varied path equipment; preventive maintenance; supervision; maintenance costs.
Prerequisite: IE 232, IE 325

IE 433 Special Topics in OR: Non-linear programming theory; Kuhn-Tucker conditions and their applications, convex and quadratic programming, unconstrained and constrained optimization; combinatorial solutions methods: Complete enumeration, implicit enumeration and branch and bound.
Prerequisite: IE 232

IE 434 Simulation: Building simulation models, random variable generation, time advancement mechanism, output analysis; model validation, data analysis.
Prerequisite: ES 251, IE 232
IE 435 Introduction to Game Theory: Optimal strategies; games in extensive form and with infinite number of strategies; convex payoff functions, timing duels; planning computer simulation experiments. Prerequisite: IE 352

IE 436 Introduction to Project Management and Network Theory: Network Theory: Minimal cost network flow problem, maximal flow, shortest path problems and solution methodology, travelling salesman and chinese postman problems; Project Management: CPM, PERT, time-cost trade-off problems, resource constrained project scheduling under general resource constraints, resource-duration trade-off in project scheduling. Prerequisite: IE 232

IE 437 Waiting Line Theory: Theory of single server and multi server queues; ergodic properties of queues, Poisson queues, birth and death processes; constrained queuing models. Prerequisite: IE 354

IE 438 Statistical Decision Theory: Concept of efficiency; multiobjective and goal programming, generation of efficient frontier, utility function, developing and utility function using preferences, multiple decision makers. Prerequisite: IE 232, IE 351

IE 439 Introduction to Forecasting Methods: Review of statistical concepts, demand patterns, filtering, naive, moving average, single smoothing, linear regression, double moving average, double smoothing, single smoothing with linear trends, regression, discounted regression, horizontal seasonal, box-jenkins models. Prerequisite: IE 438

IE 441 MIS (Management Information Systems): Introduction to information systems, people, organization, system and management, management and decision-making, technological concepts, hardware and software fundamentals, MIS in practice, decision support systems, expert systems, office automation, MIS in the functional areas of business, requirement analysis, system design, MIS implementation and maintenance, end-user computing and development. Prerequisite: IE 324

IE 442 Information Systems Analysis and Design: Developing information systems, tools for determining system requirements; structured analysis; computer aided system tools; design of computer inputs, output, on line dialogue and control, file design, data communications. Prerequisite: IE 313, IE 441

IE 445 Computerized Processes Planning and Control: Computerization of MIS; long-term capacity planning, inventory, quality, production planning and control; general manufacturing policies; new product lines, computerized applications in all of the above functions. Prerequisite: IE 326
IE 457 Statistical Quality Control: Purposes of quality control, frequency distributions of sample data, variables, attributes, process control, product control, criteria for choice of estimators of parameters, principles of estimation, tests of hypotheses and confidence limits, analysis of variance, analysis of defectives, control charts, principles of lot acceptance sampling for attributes, analysis of pattern of variability. Prerequisite: IE 358

IE 458 Introduction to Reliability Theory: Review of probability, management and organization of reliability, reliability data systems, reliability models and their mathematical analysis, Hazard functions, exponential distribution, Weibull distribution, extreme value distribution, death process models, Gamma densities, reliability estimation, reliability structure models, reliability demonstration and decisions, reliability growth models. Prerequisite: IE 457

IE 429 CIM: Automated transfer lines, automated assembly lines, assembly line balancing, flexible manufacturing systems, automated material handling, general scheduling theory and shop floor control. Automated manufacturing implementation, capital investment and analysis methods. Prerequisite: IE 326

IE 462 Advanced Manufacturing Systems Management: Manufacturing policy decisions; hierarchical production management systems; aggregate planning, disaggregation schemes, Master Production Scheduling, Materials Requirements Planning, Production Management Systems Implementation. Prerequisite: IE 313

IE 472 Productivity and Value engineering: Definition of productivity; measuring productivity; improvement of productivity in companies. Prerequisite: IE 462

IE 480 Systems Engineering: Introduction to systems engineering, the environment for systems engineering, systems organization, scheduling, formulating and structuring the systems, factor for judging the value of system, cost and time analysis. Prerequisite: IE 232, IE 441

IE 490 Engineering Projects: Application of theory on IE topics; includes review of literature, proposition of an application algorithm and empirical testing of the proposition. Prerequisite: Senior-Standing.
8. FACULTY OF FINE ARTS

Dean : Prof. Dr. Erol ETİ
Assistant Deans : Prof. Dr. Kemal ŞEN, Doç. Dr. Çiler İNAN

First founded under the name "Applied School of Fine Arts" in 1955, the school became part of Marmara University in 1982 as the Faculty of Fine Arts.

The Faculty of Fine Arts offers programs leading to the degree of Bachelor of Arts in Painting, Sculpture, Graphic Design, Textile, Ceramic and Glass, Industrial Design, Interior Design, Cinema and Television, Traditional Turkish Handicrafts and Photography.

Professional education in the Faculty is based on the technical and intellectual disciplines characteristic of each profession, disciplines which go beyond the idea of training for competence into the more intricate problems of education for growth and creative maturity.

Instruction in all departments of the Faculty is designed to equip students with basic skills and fundamental knowledge; to develop their competence in the orderly ways of thinking which professional men and women have characteristically used to reach intuitive and creative solutions in the arts; to encourage them to discover the significant means by which the artist communicates ideas and to understand how this power to transmit ideas can be productively used.

Basic Design is one of the major "A" introductive courses in all departments taught up to sixteen hours a week in the Faculty of Fine Arts.
The course teaches how to deal with design, imaginative design, form, shape, volume, perspective, light-silde, texture, structural construction, physical characteristics of living and non-living objects and all techniques of colouring and painting.

The language of instruction is in Turkish in all departments. In their senior year the students are required to work on a project of their choice, in the relevant field in order to receive their diplomas.
DEPARTMENT OF CERAMICS AND GLASS

Head of Department : Prof. Dr. Tankut ÖKTEM

Professors : Ateş ARCASOY, H. Erdinç BAKLA, Güngör GÜNER, Jale YILMABAŞAR

Assistant Professors : Ali BAYRAK, Fehmi DEMİREL, Zerrin DEMİRSU, Fuat KÖKER, Ersun ÖZKEN

Instructors : Nurdan ASLAN, Serdar GÜRSES

Language of Instruction: Turkish

The overall aim of the Department of Ceramics and Glass is to educate students as creative artists in ceramic and glass industry and handicrafts.

The courses are committed to provide a well-rounded technical and aesthetic education.

The academic program of the first two years covers intensive courses on basic art, creative ceramic designing and technical drawings.

By the end of the second year, the student is expected to be familiar with ceramic materials, application methods of moulding, glazing, furnacing and practising the turning machines.

The basic structure of third year courses is "design researches" on environment and tools of industry.

UNDERGRADUATE PROGRAM
Freshman Year

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<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>Basic Art I</td>
<td>Basic Art II</td>
</tr>
<tr>
<td>Ceramic Basic Art I</td>
<td>Ceramic Basic Art II</td>
</tr>
<tr>
<td>Casting I</td>
<td>Casting II</td>
</tr>
<tr>
<td>Technical Painting Perspective I</td>
<td>Technical Painting Perspective II</td>
</tr>
<tr>
<td>General Chemistry I</td>
<td>General Chemistry II</td>
</tr>
<tr>
<td>History of Civilization I</td>
<td>History of Civilization II</td>
</tr>
<tr>
<td>History of General Art I</td>
<td>History of General Art II</td>
</tr>
<tr>
<td>Turkish I</td>
<td>Turkish II</td>
</tr>
<tr>
<td>Atatürk Principles</td>
<td>Atatürk Principles</td>
</tr>
<tr>
<td>Foreign Language I</td>
<td>Foreign Language II</td>
</tr>
<tr>
<td>Music-Sport (Elective)</td>
<td>Music-Sport (Elective)</td>
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### Sophomore Year

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<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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</thead>
<tbody>
<tr>
<td>Ceramic Basic Art III</td>
<td>Ceramic Basic Art IV</td>
</tr>
<tr>
<td>Casting III</td>
<td>Casting IV</td>
</tr>
<tr>
<td>Ceramic Art History I</td>
<td>Ceramic Art History II</td>
</tr>
<tr>
<td>Ceramic Technology I</td>
<td>Ceramic Technology II</td>
</tr>
<tr>
<td>Technological Application I</td>
<td>Technological Application II</td>
</tr>
<tr>
<td>Surface design I</td>
<td>Surface Design II</td>
</tr>
<tr>
<td>History of General Art III</td>
<td>History of General Art IV</td>
</tr>
<tr>
<td>Misc-Sport</td>
<td>Music-Sport</td>
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<tr>
<td>(Elective)</td>
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### Junior Year

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<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>Industrial Ceramic Project I</td>
<td>Industrial Ceramic Project II</td>
</tr>
<tr>
<td>Free Ceramic Project</td>
<td>Free Ceramic Project II</td>
</tr>
<tr>
<td>Technological Application III</td>
<td>Technological Application IV</td>
</tr>
<tr>
<td>Surface Design III</td>
<td>Surface Design IV</td>
</tr>
<tr>
<td>Technical Decoration Application I</td>
<td>Technical Decoration Application II</td>
</tr>
<tr>
<td>Ceramic Production and Management</td>
<td>Ceramic Production and Management</td>
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<tr>
<td>Calculations I</td>
<td>Calculations II</td>
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<tr>
<td>Turkish Art I</td>
<td>Turkish Art II</td>
</tr>
<tr>
<td>Art and Interpretation I</td>
<td>Art and Interpretation II</td>
</tr>
<tr>
<td>Music-Sport</td>
<td>Music-Sport</td>
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<tr>
<td>(Elective)</td>
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### Senior Year

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<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>Technical Decoration Application III</td>
<td>Technical Decoration Application IV</td>
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<tr>
<td>Elective Branch</td>
<td>Elective Branch</td>
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<tr>
<td>Elective Course</td>
<td>Elective Course</td>
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</table>

**Elective Branches**
- Industrial Ceramic Project
- Free Ceramic Project

**Elective Course**
- Industrial Ceramic Project
- Creative Ceramic Project
- Ceramic Technology
- Surface Design Technical Decoration Application
- Music-Sport
- (Elective)
COURSE DESCRIPTIONS

Plaster Shaping: The aim of the course is to teach the basic principles of plaster, recognize plaster and its fields of usage, teach plaster moulding and techniques, make the students recognise the tools and materials in learning and making plastic models, prepare them for the design subject taken in class 2, 3 and 4.

Basic Art Training of Glass: The aim of the course is to interpret the creative power by means of glass.

Industrial Glass Design: The aim of the course is to obtain and develop designs suitable for production by examining the principles and shaping techniques of glass mass produced in industry.

Free Glass Design: The aim of the course is to teach the students principles of artistic design and thus helping them gain the ability of creative contemporary and original glass designs.

Glass Decoration Techniques: The aim of the course is to teach and apply all glass decoration techniques used in artistic and industrial designs.

Glass Painting: The aim of the course is to create picturesque interpretations on glass surfaces by using means of designs.

Glass Technology: The aim of the course is to study subjects in relation to glass technology.

Glass Production and Management Calculations: The aim of the course is to examine basic concepts and general presentation of production and management organizations.

Glass Technology Researches: Aim: Laboratory research and application glass technology given in theory.

Technical Decoration Applications: The aim of the course is to teach students decoration techniques in industrial and artistic designs.

Free Ceramics Design: The aim is to enable the students to conceive the artistic design principles of ceramics and to encourage them to create their own original modern ceramics designs.

Technical Drawing: The aim of the course is to educate the student on plan and project drawing used in the production of artistic and industrial ceramics. Besides, he/she is informed with details regarding Technical Drawing, Modelling, Duplicating Mould, Production Mould, Turning-Lathe, Casting Mould Shaping, Techniques for Shaping by pressing.

Ceramics Basic Art Course: The aim is to help the student express his/her creative power by means of ceramics in a free and original behaviour.
**Industrial Ceramics Design:** The aim of the course is to enable students to work on all kinds of reproducible ceramics with suitable moulding to reproduce through studying the principles of design and making researches for original designs.

**Ceramics Technology:** The aim of the course is to study all subjects concerning ceramics technology.

**Ceramics Production and Management Calculations:** The aim of the course is to study general description of production and administration institutions and their basic concepts.

**Technological Researches of Ceramic:** The aim of the course is to enable the student to make laboratory researches and applications of various ceramics previously taught theoretically.
DEPARTMENT OF CINEMA AND TELEVISION

Head of Department: Prof. Dr. Zafer DOĞAN
Associate Professors: Sabri ÖZAYDIN
Assistant Professors: Semir ASLANYÜREK, Gülçin Balta TEZCAN,
Ömer Saydam UYSAL, Bülent VARDAR,
Selahattin YILDIZ
Instructors: Vedat Tayyar ERDAMAR, Gürol GÖKÇE,
Savaş SÜNER, Recai Yücel UĞURKAN,
Onur EROĞLU, Bülent ERÇETİN

Language of Instruction: Turkish

The Department of Cinema and Television offers a B.A. degree in Fine Arts. The Department intends to help the students develop their own individual creative capabilities as inquiring, modern and innovative persons. In the first two years of the four year program the students take courses in film and television techniques, consisting of motion, sound, timing and technological elements in order to experience and develop their artistic sensibility and skill. Meanwhile, they are given opportunities for producing collective projects and discovering their creative potentialities. In the third year, the students make a choice between scriptwriting and cinematography and take supplementary courses in film directing and producing, at the end of the third year each student prepares his/her own individual project. In the fourth year students take courses choosing film directing or producing as their majors in the first term. During the second term they prepare their final projects for graduation, submitting comprehensive information about preproduction, treatment, script and post-production stages.
## UNDERGRADUATE PROGRAM

### Freshman Year

**First Semester**
- Basic Art I
- Application-Production I
- Film Analysis I
- Chemistry I
- History of Cinema I
- History of Civilization I
- History of General Art I
- Turkish I
- Atatürk Principles
- Foreign Language I
- Music-Sport (Elective)

**Second Semester**
- Basic Art II
- Application-Production II
- Film Analysis II
- Chemistry II
- History of Cinema II
- History of Civilization II
- History of General Art II
- Turkish II
- Atatürk Principles
- Foreign Language II
- Music-Sport (Elective)

### Sophomore Year

**First Semester**
- Cinema-TV Techniques I
- Application-Production III
- Film Analysis III
- Chemistry III
- Film Music I
- Film Language I
- History of Civilization III
- History of General Art III
- Music-Sport (Elective)

**Second Semester**
- Cinema-TV Techniques II
- Application-Production IV
- Film Analysis IV
- Chemistry IV
- Film Music II
- Film Language II
- History of Civilization IV
- History of General Art IV
- Music-Sport (Elective)

### Junior Year

**First Semester**
- Application-Production V
- Aesthetics of Cinema I
- Theory of Cinema I
- Cinematographic Environmental Form I
- Scenario-Director-Play I
- History of Turkish Art I
- Contemporary Art and Interpretation I
- Music-Sport
- Graduation

**Second Semester**
- Application-Production VI
- Aesthetics of Cinema II
- Theory of Cinema II
- Cinematographic Environmental Form II
- Scenario-Director-Play II
- History of Turkish Art II
- Contemporary Art and Interpretation II
- Music-Sport
- Graduation
COURSE DESCRIPTIONS

Introduction to Scriptwriting: The student gets to know the main aspects of synopsis, treatment and scriptwriting and experiments to write his/her own stories.

Introduction to Cinematography: The basic knowledge of making a "moving" picture with all the elements is the aim of these courses. The student starts to perceive the world visually.

Introduction to Sound: To hear selectively and learn the technology to record the selected sound is intended in these courses.

Introduction to Editing: The basic rules of editing a film, to maintain a rhythm depending on the theme of that particular subject is aimed with these lectures. The students try to edit the pre-shot material.

Introduction to Directing: The role of the director making a film and understanding the function of a director as an artist and craftsman is the goal of these lectures. The students work on a collective film project experiencing all the stages of directing.

Introduction to Producing: The intention is to give the student the elementaries of producing a film through researches of pre-production, schedules, locations, props, casting and setting the team.

Film Analysis: The student is informed about reading a film analytically. They are shown films which they discuss in the classes.

Film History: The development of film as an art and media and its steps through out eras and countries are shared with the students where they have the chance to talk on examples.

Scriptwriting: The elementary knowledge of developing an idea to a written film project is given to the student. They make exercises to get the practical skill of writing for a film.

Cinematography: What is light and how can we use it looking through the photo-film-video camera? How can we tell stories visually? Such themes are discussed and exercised in the class with examples.

Sound: All the aspects that one should know regarding the audio of the audio-visual medium are given to the student. They also have the chance to discuss and experience film music with experts doing practical work.

Editing: Film and video editing, the various methods of editing, using the codes in computerised systems, ways of cutting from one scene to another and editing as an effective tool of a director are discussed with students. They practice video editing themselves.
Directing: The following subjects are handled: discussion on script, pre-production stages, searching the locations, casting, technical preparations, going through the shooting script with the team, deciding the sound concept. All these stages are applied on a collective project.

Producing: The second years producing concentrates on the preproduction: examining the creative team with director, cinematographer, scriptwriter and art director and the technical team with the sound operator, assisting director, stage designer and the lighting team.

Film Analysis: Analysing films in detailed forms. The students discuss the films with all the aspects regarding the period and the land of origin.

The Theory: The students get to know the theories of American and Soviet films of the silent are and Italian, French, German, British and American films of the sound era till to day.

Art Direction: Enables the student to see the possibilities of creating the scenery through discussions on finding locations fitting the script, forming and designing the environment and costumes, perspective effects in studios, realizing the sets and special effects.

1st Choice: Main Course Scriptwriting: Writing for cinema and TV, documentary and animation; story structure: Set-up, development and resolution; character development; conflict and suspense; sub-plots, content and emotion, writing the dialogues, the function of the scriptwriter writing the shooting script with the director are discussed with the students.

Supplementary Course Cinematography: Lighting for the camera, techniques of making a picture that express the written plot, how to use the technical terminology to visualize ideas is the content of these lectures.

2nd Choice: Main Course Cinematography: Dramatic lighting; light colour; temperature; measuring the incident and reflecting light for photography, film and video; special visual effects: front and back projection, shooting with glasses and mirrors; using dolly, crane steadycam and combined techniques are examined with the students.

Supplementary Course Scriptwriting: Writing for cinema and TV, documentary and animation, how to structure the story, finding the characters, conflicts, suspense and sub-plots; writing the shooting script are the main topics of this course.
The student is ought to chose one of the following courses for the second term.

Supplementary Course Directing: The production stage with the following headlines are discussed: Using the assistants, directing the actors, directing the background, shooting take by take, continuity, recording the sound, choosing the take, preparing the postproduction and editing.
Supplementary Course Producing: Producing and budgeting the following films with their specific problems: Feature film, short film, TV film, documentary film, experimental film, advertising film and video clip are discussed in these lectures. The student is ought to chose one of the following courses for the first term.

Directing: The lectures intend to give the students a realistic, behind-the-camera-view of the world directing and the steps to professional achievement: shooting, staging, camera style; rehearsing, relating to actors; photography, movement, pacing, film editing; requirements and responsibilities of the director.

Producing: Analysing the steps of preproduction, production and post-production in various types of films; examining the function of the producer as a creative organizer solving financial and legal problems of a film are given to the student through researches and practical work.

Graduation Project: (2nd Term) Every student prepares a film discussing it step by step with the lecturers to find the optimal way of expressing him/herself through a film.

Producing: Analysing the steps of pre-production, production and post-production in various types of films; examining the function of the producer as a creative organiser solving financial and legal problems of a film are given to the student through researches and practical work.
DEPARTMENT OF GRAPHIC DESIGN

Head of Department: Prof. Dr. Fevzi KARAKOÇ
Professors: Kemal ŞEN, Sinan BAYKURT
Associate Professor: Sema Ilgaz TEMEL
Bekir KANTARCIÖGLU, Selahattin GANIZ,
Aykut ÖZBAY, Gürbüz Doğan EKŞIOĞLU,
Nazan ERKLEN, Şakir GÖKÇEBAĞ
Instructors: Dr. Nuray VURAL, Uğur Tamer GÜRPINAR,

Language of Instruction: Turkish

Graphic designers convert ideas into symbols which convey specific messages. Designers are essential in the communication field devising everything from logos to complete corporate identity system.

The education of the graphic designer encourages development of a design language which reflects imagination, innovation rather than imitation.

The aim of this department is to educate students who are apt to think creatively and thus create original design both in publication and advertising graphic arts.

Students are expected to study in an area of concentration such as graphic design, illustration, advertising design, printing and publication.

UNDERGRADUATE PROGRAM

Freshman Year

First Semester
Basic Art
Creative Art Design
Photography
History of Art
History of Civilization
Atatürk's Principles and History
of Turkish Renovation
Foreign Language
Turkish Language
Music-Sport
(Elective)

Second Semester
Basic Art
Creative Art Design
Photography
History of Art
History of Civilization
Atatürk's Principles and History
of Turkish Renovation
Foreign Language
Turkish Language
Music-Sport
(Elective)
### Sophomore Year

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<td>Creative Art Design</td>
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<td>Typography</td>
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### Junior Year

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### Senior Year

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<td>Film-TV Graphics</td>
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<td>Original Print Art</td>
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<td>Music-Sport ( Elective)</td>
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COURSE DESCRIPTIONS

Media Graphics Design: The aim of the course is to enable the student to create graphic designs in the visual and audio-visual medias in advertising and marketing media.

Packaging and From Graphics Design: The course teaches the student to solve graphic problems to design production plastic forms and in forms without any plastic characteristics.

Advertising Illustration: The course enables the student to illustrate designs suitable to the drawing language of Advertising, Graphic Media and Packaging Design.

Semiotics Design: The student is educated through a system where symbols are conceived as concepts and taught to deliver messages into concepts and concepts into visual forms.

Semiotics Design: The student is educated through a system where symbols are conceived as concepts and taught to deliver messages into concepts and concepts into visual forms.

STV (Cinema-Television Graphics Design): The student is educated to put different techniques of visualizing conceptual and audio-visual media into graphic interpretation designs.

Free Graphics Design - Publication Design: The aim of the course is to teach the student the different techniques of publication design.

Original Printart: It is a course which teaches the student the different techniques of printing.

Illustration: It is a course where the student is taught the different techniques of aesthetical values of graphic design.

Elective Courses

Calligraphy Unit I: The aim of the course is to educate the student to form free graphic design understanding; teaching him the basis of classical Latin alphabet formation.

Typography: The letter norms in a graphic design, the relationship of these norms and their very important status in graphic design is taught to the student. Emphasis is given to composition and interpretation in a rich graphic language.

Photography Unit I: Basic knowledge of photography and photography techniques (light-paperfilm relationship) (optical and chemical), are taught to the student.

Typography Unit: The course enables the student to draw out differences between typographical norms, the relationship between these norms and the importance of these norms in the perceptual language of graphic arts.
The course underlines the importance of composition and interpretation through typographical norms.

**Photography Unit I:** The course enables the student to have introductory knowledge on the technology of photography and to establish graphical forms through light-paper and film triangle (optical and chemical). The course is introduced parallel to the Graphic Formation.

**Structural Elective Courses Drawing From Nature And Free Drawing:** It is a course to teach the student the classical basic principles of drawing and enable the student to establish a visual language of expression and learn the techniques of etching and painting.

**Designing With Computers:** The course motivates the student to search for alternative solutions to graphic design problems.

**Graphic Formation:** The course covers free drawing, free graphic formation, drawing from nature, writing, etching techniques, calligraphy, typography, collages, line-dot and colour compositions, the use of colours with different techniques. The student learns to construct different interpretation languages and develop personal style of graphic expression.

**Graphic Drawing:** The course enables the student with the ability of giving graphic messages and to make interpretations through different techniques and learns the use of different materials.

**Lettering and Typographical Design:** The course gives a formation of contemporary lettering design and the student is taught its uses in different medias. The student learns to construct logos and create alphabets. He learns to adopt characters to publication design products and considers different influences using different lettering characters. The student is also taught to design creative page mesampage for periodicals; searches out for new interpretations, analyses and synthesis.

**Typographical Design (Unit II):** The student is taught to make use of typographical units with other graphical evaluations and use typographical units in graphical designs, and to choose suitable typographical units related to the subject given. Brochures, prospectuses and catalogues, mainly to be done with typographical solutions are taught to the student.

**Photography Unit II:** Photographic procedures for the designing of graphic medias are taught to the student the student learns to draw out suitable visual concepts through photography techniques and establishes a graphical photographic visual language.

**Photography Unit III:** This course embodies the preparations to realize studio-practices in photographing advertising products. The course prepares the student to be able to interpret products in photographic language.
DEPARTMENT OF INDUSTRIAL DESIGN

Head of Department : Prof. Dr. Şermin ALYANAK
Assistant Professor : Ümit CELBİŞ, Celal Arslan ÖZBİÇER, Hikmet Eser TEZEREN, Yavuz İRMAK, Hakan EZER
Instructors : Orhan ÇEVİK

Language of Instruction: Turkish

The aim of Industrial Design Department is to teach and explore the human needs in the built environment. The students are encouraged to conceive changes in social values, human behaviour, performance of products and application of technology.

The syllabus of the Department is structured in relevance to the multidisciplinary character of industrial design profession. The students are expected to develop their skills in critical, scientific and creative thinking throughout all stages of the design process.

The collaborative nature of industrial design and its implications is taught by the staff, who are also supported by visiting lecturers and specialists.

Guidance and progress is monitored throughout the four years of study by tutors and visiting lecturers in their short and long term projects. At the end of the fourth year, all students are required to develop a self-initiated graduation project.

Graduates are welcomed by a gradually growing demand for designers among industrial plants, design studios or work as free lance designers.
# UNDERGRADUATE PROGRAM

## Freshman Year

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## Sophomore Year

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<td>Structure I</td>
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<td>Material-Production Techniques I</td>
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<td>Human Factors in Design I</td>
<td>Human Factors in Design II</td>
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<td>History of Art II</td>
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## Junior Year

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<td>History of Thought I</td>
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<td>Music-Sport (Elective)</td>
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## Senior Year

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<tr>
<td>Design Management I</td>
<td>Seminar II</td>
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<td>Music-Sport (Elective)</td>
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Electives

Introduction to Computer Application I-II
Design Management I-II
Design History III-IV
Advertising I-II
Social Psychology I-II

COURSE DESCRIPTIONS

**Industrial Design:** These courses offer a staged program of design projects problem solving. The students learn to generate design ideas and to apply them to the solution of practical problems. Topics vary from year to year depending on such factors as current community and faculty issues and contemporary problems. The variety of assignments are selected to develop the student skills with his/her technical, artistic and experimental capacity. The theory goes hand in hand with project work, while developing knowledge to solve problems. The objectives of these courses are to process the sensitivities, skills and knowledge necessary for successful product development.

**Technical Drawing I-II:** The students are instructed how to use drawing equipment and materials. The basic two and three dimensional design drawing convention, orthographic projection, three dimensional axonometrics and perspective techniques and methods are exercised. The students are expected to develop their skills in component drawings, dimensions, tolerances, material, sub-assembly drawing, isometric or perspective exploded views of product or assemblies.

**Introduction to Design:** Introduction to the rational of design and systematic design processes with an overview of the profession of industrial design. Application of basic design principles to simple problems of industrial.

**Introduction to Final Project:** The students are required to undertake at the end of their fourth year, a substantial project, which demonstrates an understanding of design principles and the ability to produce a sustained study of some aspect in depth. This study is a supervised introduction to the design development and research of the final project.

**Rendering I-II:** Developing skills with instruction and supervised experience in sketching, rendering, drawing and high quality presentation renderings, which describe and communicate the product proposal. Application of different medias and techniques necessary for the conceptualisation and design development sketches and free-hand descriptive drawings, which communicate ideas.

**Design Methodology and Theory I-II:** Introduction of methodologies to develop processes, which can serve as means of organising information to stimulate creative thinking. Studies of methodologies and theories of design are analysed.
Design History I-II: Examination of the development of design from the preindustrial era through industrial revolution into the twentieth century. Particular emphasis placed on the influences of materials, technology, methods of production, changes of style and taste within the social and cultural context.

Design History III-IV: History of industrial design is reviewed within the social, cultural and technical environment with emphasis on major personalities, design theories and achievements in design of product since the beginning of twentieth century.

Production Techniques I-II: The students are instructed and supervised in the use of tool and equipment in the workshops of industrial design for the development of study, models and prototypes. Introduction to manufacturing processes.

Introduction to Computer Applications I-II: The objective of this course is to develop basic computer literacy and to investigate the interaction between computer systems and design.

Design Management I-II: Application of theories and principles of organisation and management to problems of industrial design. Introduction to professional skills in decision making, management of people and organisations. Information on trends and life-styles in relation to product development. Case studies are employed.

Structure I: The objective of this course is to enable students to focus on structural elements of industrial design objects. The headlines are form and essence and their structural relations. The students are trained to discover the depth of essence by analysis of both design and art objects. This analysis as design concept enables the students to create communicative objects based on the dimension of essence.

Structure II: The major objective of this course is to provide the students with the necessary skill and knowledge to analyse and design structure for furniture design. The students are expected to develop an overview of different structural systems and their characteristics and performance.

Structure III-IV: Manufacturing processes used in the industry and methods for searching the relations between the parts and the components of the industrial products are studied through this course.

Materials I-II: Students learn the general properties of the materials used in the industry. Static analysis of the systems and the components are also studied to be able to utilize the strength of the materials, which is one of the general properties.

Research Methods: Introducing basic concepts in research and research techniques and application of those concepts in design research activities.

Introduction to Management: The nature of management, schools of management thought, the environment of management, planning and decision making, organizing and staffing, organisational change and development, leading, controlling, international management and the future of management.

Marketing: Marketing objectives and strategies, research techniques, target consumer definitions, distribution and new product development are explored in this introductory study.

Social Psychology I-II: Introduction to the field and methods of social psychology; historical perspective, review of theoretical and empirical work related to areas such as social perception, cognition, attitude formation change, interpersonal attraction, group processes.

Advertising I-II: The essentials of advertising are examined in this survey designed to accommodate industrial design students, who are likely to confront advertising issues in their careers. Methods of creative advertising, selection and placement, media planning, development of advertising materials, and the history and ethics of advertising are examined.
DEPARTMENT OF INTERIOR DESIGN

Head of Department : Prof. Dr. Nurten ÜNANSAL

Associate Professor : Yalçın ÖZEL, Çiler İNAN,
Mualla YILDIZ, İsk GÖR
Assistant Professors : Cemal YILDIZ, Sevap ELMAS,
Türker ŞENCAN, V. Semih YALÇI
Instructors : Emel EŞLEYEN, Birol KÖSEOĞLU

Language of Instruction: Turkish

The aim of the four-year program is to provide specialization in various areas that require expertise in Interior-Design and Environmental Design discipline in addition to research opportunities.

Courses stress the planning and construction of interior space and the coordination of furnishing and accessories. Studio classes involve the understanding and application of colour, lighting, interior materials and knowledge of creative design.

The graduates of this department are prepared for a wide range of career opportunities including the growing demand for space planning skills and the increasing need for qualified persons to design remodelling and renovation of existing building for re-use.

During the first and second years of the study, the student concentrates on information courses on basic arts developing individual ideas and formulating a personal design philosophy and direction. During the following years, the student moves into a specialized area of study through a sequence of studio courses and graduation project.
UNDERGRADUATE PROGRAM

Freshman Year

First Semester
- Basic Art Education I
- Typography
- Technical Drawing and Perspective I
- History of Civilization I
- History of Art I
- Turkish
- Foreign Language
- Atatürk Principles I
- Music-Sport
  (Elective)

Second Semester
- Basic Art Education II
- Introduction to Design
- Technical Drawing and Perspective II
- History of Civilization II
- History of Art II
- Turkish
- Foreign Language
- Atatürk Principles II
- Music-Sport
  (Elective)

Sophomore Year

First Semester
- Industrial Design I
- Rendering I
- Structure I
- Material and Production Techniques I
- Human Factors in Design I
- History of Art III
- Turkish
- Atatürk
- Foreign Language
- Music-Sport (Elective)

Second Semester
- Industrial Design II
- Rendering II
- Structure II
- Material and Production Techniques II
- Human Factors in Design II
- History of Art IV
- Turkish
- Atatürk
- Foreign Language
- Music-Sport (Elective)

Junior Year

First Semester
- Industrial Design II
- Design Management I
- History of Turkish Art I
- Contemporary Art and its Interpretation I
- Turkish
- Atatürk
- Foreign Language
- Music-Sport
  (Elective)

Second Semester
- Industrial Design IV
- Design Management II
- History of Turkish Art II
- Contemporary Art and its Interpretation II
- Turkish
- Atatürk
- Foreign Language
- Music-Sport
  (Elective)
Senior Year

Professional Design and Art Courses

1. Architectural Construction I-II
2. Furniture Construction
3. Indoor Construction I-II
4. Measuring and Restoration

Communication Courses (Artistic and Technical)

1. Technical Drawing - Perspective Geometry
2. Visual Representation Techniques
3. Project
4. Typography
5. Colour-Lighting

COURSES DESCRIPTIONS

Elementary Design: The course provides the student with principles of elementary Design.

Interior Design I-II-II: The objective of the course is to develop the student's skills and to generate methodologies of design researches for private and general architecture construction and train them as creative architects for the future.

Elective Courses: The aim of the course is to render the student with technical and cultural education with related disciplines associated with interior design which are Architecture, Industrial Design, Painting, Sculpture, Ceramics, Textile, Graphic Art, Traditional Handicrafts, Restoration and computer programming.

Technical Drawing, Perspective, Design: The course encourages the student to use his ability to design, to conceive the principles of technical drawing and standard of designing.

Lettering - Typography: The course helps the student to prepare his project in a careful and correct procedure and to donate him with excellent calligraphic writing through graphic discipline and help with the formation of research making in or out of the building thus have the chance to use different lettering character.

Structural Know-How: The objective of the course is to teach architectural structure design and principles, the required architectural concept and know-how on architectural structure and to donate the student with sufficient information on the subject.

Indoor Construction I-II: The course enables student to learn systems and standards of constructional principles.
**Furniture Construction:** The aim of the course is to teach the construction systems, different systems of drawing and expression principles with different materials used in furniture making.

**Production and Application Techniques:** The course enables the student to gain knowledge and skill about all kinds of furniture, different materials, construction principles and emphasizes the production and application systems.

**Materials I-II-III:** The major objective of the course is to donate the student with the necessary knowledge about the furniture production and techniques of materials.

**Cost Accounts:** The course teaches the principles of calculating the production, application and material costs.

**Visual Representation Techniques:** The overall aim of the course is to enable students to gain the capacity of visualizing and to render their creativity into designs.

**Project Expression Techniques:** The aim of the course is to teach different technical drawings in order to establish a style in expressing himself with his design projects.

**Installation, Technical Equipping Constructional Physics:** The student is acknowledged on heating, airconditioning, illumination, sound and water insulation and their technical equipping in installation in structural physics context.

**Measuring - Restoration:** The aim of the course is to teach the student techniques of construction to restore historical buildings and structures and their related interiors and their preservation.

**Colour-Lighting:** The course provides the student with knowledge on colour and lighting, volume and colour adjustment, physical and psychological perceptions, colour and lighting analyzes and variations in parallel with volume colouring principles.

**Human Factor in Designing:** The designer is theoretically provided with the required ergonomic knowledge.

**The Theory and Principles of Design:** In interior Architectural Designing Course, the relations among human-environment-art and principles of technical factors are studied as well as emphasizing on their design-project-application stages through research, planning and programming.

**History of Interior Design:** The student gains knowledge on the styles of architectural construction and indoors, principles of shaping and designing, types of furniture, tools and equipment people have used through the history of man.

**Management and Organization:** The student obtains a great deal of knowledge on introduction of basic process in his professional career, management and business organization.
DEPARTMENT OF PAINTING

Head of Department: Prof. Dr. Nevzat YÜZBAŞIOĞLU
Professors: Metin ŞAHİNOĞLU, Mustafa PİLEVNELİ, İ. Ergin İNAN, Erol ETİ, Hüsamettin KOÇAN, Mehmet ÖZER, B. Naci İSLİMİELİ, Kadri ÖZAYTEN, Cevat DEMİR, Mümtaz İŞİNGÖR
Associate Professors: Fıllız BAŞARAN, Tayfun ERDOĞMUŞ, Sema ARIGİL
Assistant Professors: Kemal GÜRBÜZ, Murteza FİDAN, Devabil KARA, A. Ümit KUSEYRİOĞLU

Language of Instruction: Turkish

The aim of the department is to provide the opportunity for exceptionally promising students to extend their talents, ideas and field of expertise and to develop the self-confidence and self-sufficiency necessary for their future as practising professional artists.

The students are offered courses in the fields of painting, print making, and mural painting through which the students can pursue and independent direction of study in order to develop a personal style and expression.

The course embraces those issues that are of most concern to the student and to the theory and practice of painting.

The Department of painting represents a diversity in styles, giving students various perspectives and each faculty member spends individual time with each student in and out of the classroom.

General Culture and History of Art courses are expanded in the course of education with the applied courses in order to develop experimental, observational and artistic abilities.
# UNDERGRADUATE PROGRAM

## Freshman Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<td>Basic Art I</td>
<td>Basic Art II</td>
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<tr>
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<td>Art of Painting II</td>
</tr>
<tr>
<td>Technical Drawing and Perspective I</td>
<td>Technical Drawing and Perspective II</td>
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<tr>
<td>Artistic Anatomy I</td>
<td>Artistic Anatomy I</td>
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<tr>
<td>History of Civilisation I</td>
<td>History of Civilisation II</td>
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<tr>
<td>History of General Art I</td>
<td>History of General Art II</td>
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<td>Turkish I</td>
<td>Turkish II</td>
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<td>Atatürk</td>
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<tr>
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<td>Foreign Language II</td>
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<tr>
<td>Music-Sport (Elective)</td>
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## Sophomore Year

<table>
<thead>
<tr>
<th>First Semester</th>
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<tbody>
<tr>
<td>Art of Painting III</td>
<td>Art of Painting IV</td>
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<tr>
<td>Area Elective</td>
<td>Area Elective</td>
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<tr>
<td>Art Technology I</td>
<td>Art Technology II</td>
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<tr>
<td>Philosophy of Art I</td>
<td>Philosophy of Art II</td>
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<tr>
<td>History of General Art III</td>
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<td>Music-Sport (Elective)</td>
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## Junior Year

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<td>Art of Painting V</td>
<td>Art of Painting VI</td>
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<tr>
<td>Area Elective</td>
<td>Area Elective</td>
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<tr>
<td>Art Technology III</td>
<td>Art Technology IV</td>
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<tr>
<td>Sociology of Art I</td>
<td>Sociology of Art II</td>
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<tr>
<td>History of Turkish Art I</td>
<td>History of Turkish Art II</td>
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<tr>
<td>Contemporary Art and Interpretation I</td>
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<tr>
<td>Music-Sport (Elective)</td>
<td>Music-Sport (Elective)</td>
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</tbody>
</table>
Senior Year

First Semester

Art of Painting VII
Area Elective
Elective Workshop Courses:
Stained glass
Fresco
Scraffito
Stucco
Mosaic Art
Application with Contemporary Materials
Music-Sport (Elective)

Second Semester

Art of Painting VIII
Area Elective

The Art of Painting: The aim of the course is to enable the student to search for the possibilities of visual expression techniques and individual and original way of expression.

Compulsory Elective Courses: The course educates the students as creative artists and draw their attention towards contemporary art through natural and artificial materials and technological data.

Basic Art Education: The course covers sixteen hours a week and teaches different elements of formation, drawing, fiction, colour, and other theoretical knowledge leading the student to be a creative and original artist.
DEPARTMENT OF PHOTOGRAPHY

Head of Department : Prof. Dr. Güler ERTAN
Assistant Professor : Barbaros GÜRSEL

Language of Instruction: Turkish

The basic principle of this department is to enable the student to gain technical and aesthetic knowledge, produce sensitive work and find out the relations with other art branches, to train qualified technical artists to work in the following fields of photography.

- Advertising and fashion
- Photo-journalism
- Archives and documentary research
- Photographing natural and historical areas
- Photography research and development projects.

In junior and senior classes advanced subjects are studied. During the last semester the student moves into a specialized area covering both theoretical and practical studies for the graduation project.
## UNDERGRADUATE PROGRAM

### Freshman Year

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<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>Basic Art</td>
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<td>Photography</td>
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<tr>
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<td>History of General Art</td>
<td>History of General Art</td>
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<td>Foreign Language</td>
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### Sophomore Year

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<thead>
<tr>
<th>First Semester</th>
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<tbody>
<tr>
<td>Studio Techniques</td>
<td>Studio Techniques</td>
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<tr>
<td>B/W Dark room Techniques</td>
<td>B/W Dark room Techniques</td>
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<td>Shooting Techniques</td>
<td>Shooting Techniques</td>
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<td>Documentary Photography</td>
<td>Documentary Photography</td>
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<tr>
<td>Colour Print Dark Room Techniques</td>
<td>Colour Print Dark Room Techniques</td>
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<tr>
<td>Composition of Photography</td>
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<tr>
<td>History of Photography</td>
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<td>History of General Art</td>
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<tr>
<td>Music-Sport (Elective)</td>
<td>Music-Sport (Elective)</td>
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</tbody>
</table>
Junior Year

First Semester
Advanced Photography
Advanced Dark room Techniques
Architectural Photography
Industrial Photography
Experimental Photography
Reproduction and Printing Techniques
Visual Communication
Music-Sport
(Elective)

Second Semester
Advanced Photography
Advanced Dark room Techniques
Architectural Photography
Industrial Photography
Experimental Photography
Reproduction and Printing Techniques
Visual Communication
Music-Sport
(Elective)

Senior Year

First Semester
Portrait-Fashion Photography
Still Life
Nature Photography
Principles and Philosophy of Photography
Music-Sport (Elective)

Second Semester
Portrait-Fashion Photography
Still Life
Nature Photography
Principles and Philosophy of Photography
Graduation Project
Music-Sport (Elective)

COURSE DESCRIPTIONS

Photography Course: The beginner students are provided with the basic principles of photography and prepared for higher classes.

Theory of Photography: The course covers:
- Photographic composition
- Visual communication
- History of photography branch and its influence on other art branches
- Theory and Philosophy of Photography

Nature Photography: Photographing objects and creatures forming the environment in nature and documenting and interpreting natural environment from the view of a photographer.

Experimental Photography: The aim of the course is to teach photography on a more advanced level to express lingual concepts visually by means of photography.

Photography Composition: The principles of photography composition are taught in parallel with technical and visual dimensions.
Visual Communication: Art philosophy is transformed into a work of art through photographic applications.

History of Photography: The student is provided with the knowledge on the history of photography, its chronicle development, origin and place in the concept of art.

Principles of Photography: This course teaches the reading techniques and concepts of philosophy of photography which is one of the means of understanding and interpreting the World.

Portrait Fashion Photography: Taking portrait photographs in a studio or outdoor is practised. "Portrait" photography is the oldest application in the history of photography.

Architectural Photography: The student concentrates on photographing architectural buildings and applying perspective in photography.

Photogram: The student is acquainted with photographic materials, taught photographing techniques using opaque, semi-opaque and transparent materials without a camera. He also learn to apply simple principles of composition.

Studio Techniques: This course gives the knowledge on studio designing, and equipment, artificial lights in studio and advertising photography.

Advanced Darkroom Techniques: The techniques of perfect printing are taught in parallel with Advanced Photography Course.

Advanced Photography Course: Advanced information is given on Black and White Photography which is known as "Zone System".

Reproduction and Printing Techniques: The student is informed on the relations of photography with printing.

Light: The aim of the course is to provide the student with the necessary information on physical formation of light and results of its effects, variation of atmospheric conditions and their effects on photography.

Black and White Dark Room Techniques: Developing a film and printing techniques are shown as well as their theoretical and practical applications.

Colour Printing: Development of colour positives and negatives and their printing techniques are taught and applied.

Chemistry of Photography: The chemical aspects of silver halide process which is sensitive to light are studied.

Optics: The course emphasizes on optic systems and mechanics which are parts of photography.
DEPARTMENT OF SCULPTURE

Head of Department : Prof. Dr. Mümaz IŞINGÖR
Assistant Professor : Nilay TEZONAR
Instructors : Ayla AKSUNGUR, Dr. Ümit ÖZTÜRK,
              Alptekin GÖRÜNÜŞ
Research Assistants : F. Esma PAÇAL, H. Şeyma ÜSTÜNER,
                      Nurettin BEKTAŞ

Language of Instruction: Turkish

The sculpture curriculum is designed to prepare the student to become a fine artist as sculpturors. The courses allow the students to develop their own partdicular visual language built on introductory coruses in drawing, design and sculpture design. The aim of the course is essentially to develop each student’s individual contribution to sculpture in imaginative and technical manner. The program helps the students to explore abstract and representational forms as well as the use of traditional and nontraditional materials. Models are used extensively. Students are encouraged to acquaint themselves with stone, metal, wood, ceramics as well as artificial materials using contemporary technology. Parallel to the basic art education, students are expected to learn three-dimensional design, anatomy and history of art. Jewellery is another creative branch of the department which provides the student with the opportunities of entering the professional and artistic world.
### Freshman Year

<table>
<thead>
<tr>
<th>First Semester</th>
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<tbody>
<tr>
<td>Basic Art Education I</td>
<td>Basic Art Education II</td>
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<tr>
<td>Basic Professional Education I</td>
<td>Basic Professional Education II</td>
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<td>Art of Sculpture I</td>
<td>Art of Sculpture II</td>
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<tr>
<td>Technical Drawing Perspective I</td>
<td>Technical Drawing Perspective II</td>
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<tr>
<td>History of Civilization I</td>
<td>History of Civilization II</td>
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<tr>
<td>History of General Art I</td>
<td>History of General Art II</td>
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<tr>
<td>Turkish I</td>
<td>Turkish I</td>
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<tr>
<td>Atatürk's Principles and History of Turkish Renovation I</td>
<td>Atatürk's Principles and History of Turkish Renovation II</td>
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<tr>
<td>Foreign Language I</td>
<td>Foreign Language II</td>
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<td>Music-Sport</td>
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### Sophomore Year

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<th>First Semester</th>
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<tr>
<td>Art of Sculpture III</td>
<td>Art of Sculpture IV</td>
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<tr>
<td>Area Elective</td>
<td>Area Elective</td>
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<td>Morphology, Artistic Anatomy I</td>
<td>Morphology, Artistic Anatomy II</td>
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<tr>
<td>History of General Art III</td>
<td>History of General Art IV</td>
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<td>Music-Sport</td>
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### Senior Year

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<th>First Semester</th>
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<td>Art of Sculpture VII</td>
<td>Art of Sculpture VIII</td>
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<td>Area Elective</td>
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<td>Elective Courses</td>
<td>Music-Sport (Elective)</td>
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<tr>
<td>Stone</td>
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<td>Wood</td>
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<td>Metal</td>
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<tr>
<td>Music-Sport (Elective)</td>
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COURSE DESCRIPTIONS

The Art of Sculpture: The overall aim of this department is to encourage the students to create their artistic individuality by studying abstract forms and apply their observations perfectly into materials.

Drawing: It enables the students to conceive basic elements of sculpture such as observing, recognizing volumes and proportions.

Elective Technical Workshop: The course helps the students to comprehend how a true work of art is applied by using stone, wood, metal and jewellery.

Sculpture and Environment: Considering the environmental characteristics for the setting up a statue into the most suitable location, the course provides the subjects with necessary subjects.

Technical Drawing: This study enables the students to apprehend perspective and designing principles.

Anatomy: This course teaches bones and muscles of human anatomy to help the students in their plastic interpretation.
DEPARTMENT OF TEXTILE

Head of Department : Prof. Dr. H. Reyhan KAYA
Professors : Şahin Yüksel YAĞAN, Özcanay OMUR
Associate Professors : Nevin EREZ, Mehmet SAÇLIOĞLU,
Ertugrul ERGİN, Atila ERGÜR, Ayla SALMAN,
Ayşe UYGUR
Assistant Professor : Fatih ÖKÇÜOĞLU, Özcan UZKUR, Turgay BAŞKAN,
Hamdi ÜNAL, Şebnem Ruhsar TEMİR,
Günay ATALAYER, Cemile TUNA, Recep KARADAĞ
Instructors : Harald SCHMIDT, Harald BÖHMER

Language of Instruction: Turkish

The objective of the department is to provide a well-rounded technical
and aesthetic education for individuals who wish to enter the textile industry.
Department of textile offers a B.A. program aiming at an education which en-
ables the students to take part in industrial textile and handicrafts and to be
creative artists on the subjects of industrial textile and handicrafts.

Basic and liberal art courses broaden students’ visual concepts, skills
and ideas. The program strengthens abilities in drawing colour theory, two
and three dimensional design, old and new techniques of weaving.

The first year students gain knowledge on basic art of textile and history
of arts.

In the second and third years, courses on composition of creative de-
sign and textile technology are taught to encourage the students to develop
their creativity on textile designing.

The fourth year is geared toward the development of a strong body of
work for the portfolio and senior show.

The Department of Textile of this faculty emphasizes the technical profi-
ciency and aesthetic development through courses and studio work which
encompasses areas such as costume design, feltmaking, papermaking,
handweaving, printing, costume design, feltmaking, papermaking, handwea-
ving, printing, boutique and industrial printing, dyeing, silk screen, stitchery
and other surface treatments to from the basis for the field of surface de-
sign, a key area in contemporary fiber arts.
<table>
<thead>
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<td>Idea - Composition I</td>
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<td></td>
<td>Fabric Structure Knowledge I</td>
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<td>Textile Woven Technology I</td>
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<tr>
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<td>Textile Clothing I</td>
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<td>Textile Chemistry I</td>
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<td><strong>Second Semester</strong></td>
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<td>Idea - Composition II</td>
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| Sophomore Year | **First Semester**                                                      |
|                | Idea-Composition III                                                   |
|                | Clothing Project I                                                     |
|                | Textile Handicrafts I                                                  |
|                | Fabric Structure Knowledge III                                         |
|                | Textile Clothing I                                                     |
|                | Textile Chemistry I                                                    |
|                | History of General Art III                                             |
|                | Music-Sport (Elective)                                                 |
|                | **Second Semester**                                                    |
|                | Idea-Composition IV                                                    |
|                | Clothing Project II                                                    |
|                | Textile Handicrafts I                                                  |
|                | Fabric Structure Knowledge IV                                          |
|                | Textile Clothing II                                                    |
|                | Textile Chemistry II                                                   |
|                | History of General Art IV                                              |
|                | Contemporary Art and Interpretation I                                  |
|                | Music-Sport (Elective)                                                 |

| Junior Year    | **First Semester**                                                      |
|                | Idea-Composition V                                                     |
|                | Clothing Project III                                                   |
|                | Textile Handicrafts III                                                |
|                | Fabric Structure Knowledge V                                           |
|                | Textile Knotting Technology I                                          |
|                | Textile Clothing V                                                     |
|                | Textile Chemistry V                                                    |
|                | History of Turkish Art I                                               |
|                | Contemporary Art and Interpretation I                                  |
|                | Music-Sport (Elective)                                                 |
|                | **Second Semester**                                                    |
|                | Idea-Composition VI                                                    |
|                | Clothing Project IV                                                    |
|                | Textile Handicrafts IV                                                 |
|                | Fabric Structure Knowledge VI                                          |
|                | Textile Knotting Technology I                                          |
|                | Textile Clothing VI                                                    |
|                | Textile Chemistry VI                                                   |
|                | History of Turkish Art II                                              |
|                | Music-Sport (Elective)                                                 |
Senior Year

First Semester

Clothing Project V
Textile Fashion I
Methodical Science Management I
Marketing I
Music-Sport
(Elective)

Second Semester

Clothing Project VI
Textile Fashion II
Methodical Science Management II
Marketing II
Music-Sport
(Elective)

UNDERGRADUATE PROGRAM IN PRINTING

Freshman Year

First Semester

Basic Art I
Idea-Composition I
Fabric Structure Education I
Textile Woven Technology I
Textile Printing Technology I
History of Civilization I
History of General Art I
Turkish I
Atatürk's Principles and History of Turkish Renovation I
Foreign Language I
Music-Sport
(Elective)

Second Semester

Basic Art II
Idea-Composition II
Fabric Structure Education II
Textile Woven Technology II
Textile Printing Technology II
History of Civilization II
History of General Art II
Turkish I
Atatürk's Principles and History of Turkish Renovation II
Foreign Language II
Music-Sport
(Elective)

Sophomore Year

First Semester

Idea-Composition III
Interwoven Project I
Textile Handicrafts I
Fabric Structure Knowledge II
Textile Woven Technology III
Textile Knitting Technology I
History of General Art III
Music-Sport (Elective)

Second Semester

Idea-Composition IV
Interwoven Project II
Textile Handicrafts II
Fabric Structure Knowledge IV
Textile Woven Technology IV
Textile Knitting Technology II
History of General Art IV
Music-Sport (Elective)
Junior Year

First Semester
- Idea-Composition V
- Interwoven Project III
- Textile Handicrafts III
- Fabric Structure Knowledge V
- Textile Woven Technology V
- Textile Knotting Technology III
- History of Turkish Art I
- Contemporary Art and Interpretation I
- Music-Sport (Elective)

Second Semester
- Idea-Composition VI
- Interwoven Project VI
- Textile Handicrafts IV
- Fabric Structure Knowledge VI
- Textile Woven Technology VI
- Textile Knotting Technology VI
- History of Turkish Art II
- Contemporary Art and Interpretation II
- Music-Sport (Elective)

Senior Year

First Semester
- Interwoven Project
- Textile Chemistry I
- Textile Fashion I
- Methodical Science Management I
- Music-Sport
  (Elective)

Second Semester
- Interwoven Project VI
- Textile Chemistry II
- Textile Fashion II
- Methodical Science Management II
- Marketing II
- Music-Sport (Elective)

UNDERGRADUATE PROGRAM IN WEAVING

Freshman Year

First Semester
- Basic Art
- Idea-Composition
- Fabric Structure
- Technology of Textile Weaving
- Textile Printing Technology
- Textile Chemistry
- History of Civilization
- History of General Art
- Music-Sport
  (Elective)

Second Semester
- Basic Art
- Idea-Composition
- Fabric Structure
- Technology of Textile Weaving
- Textile Printing Technology
- Textile Chemistry
- History of Civilization
- History of General Art
- Music-Sport
  (Elective)
Sophomore Year

First Semester
- Idea-Composition
- Woven Project
- Textile Handicrafts
- Fabric Structure Knowledge
- Technology of Textile Weaving
- Textile Interwoven Technology
- Textile Chemistry
- History of General Art
- Music-Sport (Elective)

Second Semester
- Idea-Composition
- Woven Project
- Textile Handicrafts
- Fabric Structure Knowledge
- Technology of Textile Weaving
- Textile Interwoven Technology
- Textile Chemistry
- History of General Art
- Music-Sport (Elective)

Junior Year

First Semester
- Idea-Composition
- Woven Project
- Fabric Structure Knowledge
- Technology of Textile Weaving
- Textile Interwoven Technology
- Textile Chemistry
- History of General Art
- Turkish Art I
- Contemporary Art and Interpretation I
- Music-Sport (Elective)

Second Semester
- Idea-Composition
- Woven Project
- Fabric Structure Knowledge
- Technology of Textile Weaving
- Textile Interwoven Technology
- Textile Chemistry
- History of General Art
- Turkish Art I
- Contemporary Art and Interpretation I
- Music-Sport (Elective)

Senior Year

First Semester
- Woven Project
- Textile Fashion
- Methodical Science Management
- Marketing
- History of Turkish Art II
- Contemporary Art and Interpretation II
- Music-Sport (Elective)

Second Semester
- Woven Project
- Textile Fashion
- Methodical Science Management
- Marketing
- History of Turkish Art II
- Contemporary Art and Interpretation II
- Music-Sport (Elective)
COURSE DESCRIPTIONS

Creative Composition: It aims to teach students the basics of textile design and improve their creativity. Various designs are produced using geometrical forms, natural and imaginary object and abstract concepts.

Weaving Design: It aims to give students individual style by supporting their creativity with technical knowledge to prepare them for the weaving branches of textile industry and the related handicrafts.

Printing Design: It aims to give students individual style by supporting their creativity with technical knowledge to prepare them for the printing branches and the related handicrafts of textile industry.

Fashion Design: It aims to give students individual style and modern outlook parallel with the social and economical changes in their environment by helping them to make a synthesis of technological and functional knowledge together with creativity.

Textile Handicrafts: It aims to present rich varieties of historical textile handicrafts and maintain the students to benefit from form, colour and pattern characteristics of these crafts.

Fabric Structure: It aims to give students basic knowledge of fabric structures.

Textile Weaving Technology: It aims to give students basic technological knowledge of fabric structures.

Textile Weaving Technology: It aims to give students basic technological knowledge of woven fabric production in order to use in industry.

Textile Knitting Technology: It aims to teach basic technological knowledge in knitted fabric design which forms the major part of textile fabric production in industry.

Textile Printing Technology: It aims to give students basic technological knowledge of printed fabric production in order to use in industry.

Textile Dyeing Technology: It aims to teach students to obtain a particular colour on various yarns by using different laboratory facilities.

Textile Clothing Technology: It aims to teach students basic technological knowledge to be used in industrial production.

Textile Chemistry: It aims to teach students physical and chemical properties of natural and synthetic fibbers and their use, and to introduce them various textile materials.

Fashion: It aims to introduce students the fashion concept which interacts with various life styles.
**Research Methods:** It aims to teach students to prepare reports and research works according to scientific measures to be used either during education or after graduation.

**Marketing and Management:** It aims to teach students marketing which forms major role and takes the first place in economy. It also educates as to make the right decisions in marketing both inside and outside the country.
DEPARTMENT OF TRADITIONAL TURKISH HANDICRAFTS

Head of Department: Associate Prof. Dr. Feral İREZ

Associate Professor: Şerife ATLIHAN
Assistant Professors: Sibel ARIK, İnci BİROL, Çiçek DERMAN,
Instructors: Gülnur DURAN, Çağdem KAYNAR,
Sadri SAYİOĞULLARI, Salih BALAKBABALAR
Research Assistants: Didem ATİŞ, Hakan ÇİŁOĞLU,
Güray İ. ÇIRAKMAN, Ülkü Tokatlı AKÇA,
Sevim ARSLAN, Ethem Levent TEKİN KAYA,
Seher AŞICİ, Gülñihal KÜPELİ, Metin KAFKAS

Language of Instruction: Turkish

The education offers courses on two main subjects which are: Textile Handicrafts and Miniature-Illumination. In the first year the student is educated according to the principles of the common education program. He chooses his subject according to his performance and average at the end of the first year.

The division aims to educate students who are able to make researches on traditional textile handicrafts, and to adjust his researches to contemporary limits with free and new creativeness with the formation he has proved to visualize and conceive art to new conceptualizations.

Undergraduate and graduate programs are all offered in harmony and unity. Those who complete these programs may work on restoration conservation and expertising in related subjects.

Miniature-Illumination division aims to create contemporary and new evaluations in the light of our traditional handicrafts and aesthetic characteristics.

The graduates, who have the right for an undergraduate diploma and the title of an "artist" may take care of ancient art pieces and restore them and may take responsibilities in the museums and libraries.
UNDERGRADUATE PROGRAM IN CLOTHING PROJECT

Freshman Year

First Semester

- Basic Art Education I
- Turkish Design I
- Old Turkish Textile I
- History of Civilization I
- Turkish I
- Atatürk Principles
- Foreign Language I
- Physical Ed. Music I
- Principles of Design I
- Music-Sport
  (Elective)

Second Semester

- Basic Art Education II
- Turkish Design Textile II
- Old Turkish II
- History of Civilization II
- Turkish II
- Atatürk Principles
- Foreign Language II
- Physical Ed. Music II
- Principles of Design II
- Music-Sport
  (Elective)

Sophomore Year

First Semester

- Carpet, Flat Weave I
- Traditional Textile Design I
- Principles of design III
- Textile Technology I
- Photography I
- Textile Restoration I
- Old Turkish III
- Turkish Art I
- Music-Sport (Elective)

Second Semester

- Carpet, Flat Weave II
- Traditional Textile Design
- Principles of Design IV
- Textile Technology II
- Photography II
- Textile Restoration II
- Old Turkish IV
- Turkish Art II
- Music-Sport (Elective)

Junior Year

First Semester

- Carpet, Flat Weave III
- Traditional Textile Design III
- Principles of Design V
- Textile Technology III
- Textile Restoration III
- Old Turkish V
- History of Traditional Turkish
- Handicrafts I
- Turkish Art III
- Contemporary Art I
- History of Textile Art I

Second Semester

- Carpet, Flat Weave IV
- Traditional Textile Design IV
- Principles of Design VI
- Textile Technology IV
- Textile Restoration IV
- Old Turkish VI
- History of Traditional Turkish
- Handicrafts II
- Turkish Art IV
- Contemporary Art II
- History of Textile Art II

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## Senior Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carpet, Flat Weave V</td>
<td>Carpet, Flat Weave VI</td>
</tr>
<tr>
<td>Traditional Textile Design V</td>
<td>Traditional Textile Design VI</td>
</tr>
<tr>
<td>Textile Restoration V</td>
<td>Textile Restoration VI</td>
</tr>
<tr>
<td>Printing</td>
<td>Principles of Design VII</td>
</tr>
<tr>
<td>Weaving</td>
<td>Music-Sport (Elective)</td>
</tr>
<tr>
<td>Illumination</td>
<td></td>
</tr>
<tr>
<td>Principles of design VII</td>
<td></td>
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<tr>
<td>Music-Sport (Elective)</td>
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</tbody>
</table>

## UNDERGRADUATE PROGRAM IN MINIATURE-ILLUMINATION

### Freshman Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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</thead>
<tbody>
<tr>
<td>Basic Art Education I</td>
<td>Basic Art Education II</td>
</tr>
<tr>
<td>Principles of Design I</td>
<td>Principles of Design II</td>
</tr>
<tr>
<td>Turkish Design I</td>
<td>Turkish Design II</td>
</tr>
<tr>
<td>Old Turkish I</td>
<td>Old Turkish II</td>
</tr>
<tr>
<td>History of Civilization I</td>
<td>History of Civilization II</td>
</tr>
<tr>
<td>General Art History I</td>
<td>General Art History II</td>
</tr>
<tr>
<td>Turkish I</td>
<td>Turkish II</td>
</tr>
<tr>
<td>Atatürk Principles</td>
<td>Atatürk Principles</td>
</tr>
<tr>
<td>Foreign Language I</td>
<td>Foreign Language II</td>
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<tr>
<td>Music-Sport (Elective)</td>
<td>Music-Sport (Elective)</td>
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</tbody>
</table>

### Sophomore Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>Illumination Design I</td>
<td>Illumination Design II</td>
</tr>
<tr>
<td>Principles of Design III</td>
<td>Principles of design IV</td>
</tr>
<tr>
<td>Technical Drawing</td>
<td>Turkish Art I</td>
</tr>
<tr>
<td>Seminar</td>
<td>Seminar</td>
</tr>
<tr>
<td>Old Turkish III</td>
<td>Old Turkish IV</td>
</tr>
<tr>
<td>Turkish Art I</td>
<td>Turkish Art II</td>
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<tr>
<td>Minor Subject</td>
<td>Minor Subject</td>
</tr>
<tr>
<td>Music-Sport (Elective)</td>
<td>Music-Sport (Elective)</td>
</tr>
</tbody>
</table>
### Junior Year

**First Semester**
- Illumination Design III
- Elective Art
- Principles of Design V
- Turkish Art II
- Minor Subject
- History of Turkish Traditional Handicrafts I
- Old Turkish V
- Turkish Art III
- Contemporary Art I
- Seminar
- Music-Sport (Elective)

**Second Semester**
- Illumination Design IV
- Elective Art
- Principles of Design VI
- Turkish Art III
- Minor Subject
- History of Turkish Traditional Handicrafts II
- Old Turkish VI
- Turkish Art IV
- Contemporary Art II
- Seminar
- Music-Sport (Elective)

### Senior Year

**First Semester**
- Illumination Design V
- Minor Subject
- Principles of Design V
- Turkish Art VIII
- Seminar
- Minor Subject
  - i) Miniature
  - ii) Calligraphy
- Music-Sport (Elective)

**Second Semester**
- Illumination Design VI
- Minor Subject
- Principles of Design VIII
- Turkish Art VI
- Seminar
- Elective Courses
  - Wood
  - Metal Work
  - Restoration
- Music-Sport (Elective)

### COURSE DESCRIPTIONS

**Textile Handicrafts (Rug-Carpet Textile Design):** Research is carried out on rug-carpet and textile products. Necessary technical know-how is given to the student on rug-carpet, and textile design studies.

**Rug-Carpet and Textile Design:** Research is carried on rug-carpet, and textile products given emphasis on tradition and region. Design study researches are carried out aiming to reach contemporary conclusions laying emphasis on traditional values.

**Rug-Carpet and Textile Design:** Student who are donated with necessary technical know-how and evaluations of traditional textile handicrafts start a project to create new solutions.
History of Textile Technology: General textile history is taught to the student in theory.

Textile Know-How and Analysis of Textiles: Structural characteristics of textile material are divided into classes due to material differences and technique.

Textile Chemistry: Textile leaflets are classified and their physical and chemical characteristics are taught to the student.

Natural Dyes and Colouring Methods: The colouring of textile material with traditional methods and theoretical knowledge is taught to the student. The student is educated through a training period.

Textile Restoration: The restoration and conservation procedures are taught to student both in theory and practice. The student is obliged to complete a training period.

Color Education: The color theory is taught through surface discrimination practices. Examples helping the student to form new designs are shown.

Traditional Textile Structure: Textile structure in historical textile is classified and studied both in theory and practices are carried out.

Introduction to Traditional Turkish Handicrafts Art: Theoretical knowledge is given to the students on introduction to Traditional Turkish handicrafts and illumination art.

The History of Traditional Turkish Handicrafts Art: Traditional Turkish Art is taught in general.

Folklore: Textile material is used in folkloric traditions in relation to the conceptual beliefs and way of life.

Management and Marketing: The evaluation of textile products is studied within the general rules of "Management" conceptualization.

Seminar (Rug-carpet, textile, print): Subject given in seminars are taught in theory first and then put into practice.

Elective Art: Basic knowledge is put into theory and practice on traditional art subjects.

Elective Courses (Systems of Conceptual Analysis): The methods of conceptual analyses of historical textile is taught in theory and practice.

Illumination Art in Historical Textiles: Illumination art in historical textiles is taught in theory and put into practice in relation to the subject chosen.

Color Testing: The color testing in textile produces is done in theory and practice.
Illumination-Miniature

Illumination Design: The aim of the course is to enable the student to create original and contemporary art work adjusting the rules of illumination art.

Turkish Design: The aim of the course is to introduce the students with the motives and composition techniques used in Turkish textile designs and render the student to create new compositions.

The History of Traditional Turkish Handicrafts: The aim of the course is to give a through introduction of Turkish art with the aid of the slides.

Calligraphy: The aim of the course is to teach the classical forms of Turkish Calligraphy art.

Miniature: The aim of the course is to teach the techniques and materials used in classical miniature drawing and show the comparison between classical West Painting and Classical East Miniature Painting and teach the student to collect documents to build an archive.

Miniature: The aim of the course is to motivate the student to end up with contemporary interpretations through experimental and original results.

Old Turkish: The fact that the history of our culture had been written in Arabic words, makes it necessary for the young generation to be introduced with old Turkish in order to read the documents of our culture.

Designing Principles: The form and colour relationship is taught in theory and practice with different points of view. The course is introduced to enable the student to prove his ability and personality.

Wall Decoration: Wall decoration in civil and religious architecture is studied starting from the beginning to our day both in theory and practice.

Preparation of New Materials For Book Designs: The aim of the course is to prepare the student to create new materials for book design.

Marbling: The aim of the course is to introduce the student with marbling techniques, history of marbling, the marbling artists, their techniques and styles and help the student to adjust her personal style.

Mother of Pearl: The student is introduced with classical mother of pearl culture and enabled to create new productions and synthesis.

Basic Art Education: Basic principles in art education: such as dots, lines, colour structure and perspective is taught to the student in order to acquaint him with perception.

Photography: The aim of the course is to help the student with the principles of photography, to enable him to realize creative studies and establish documents of a large collection of photographs.
9. FACULTY OF HEALTH EDUCATION

Dean : Prof. Dr. Osman HAYRAN
Assistant Dean : Assoc. Prof. Can İKİZLER

Language of Instruction: Turkish

Faculty of Health Education is established by Marmara University, Istanbul, Turkey, in 1994.

The Faculty plans to have undergraduate programs of four years, as well as postgraduate program, for the students who wish to be employed as paramedicals in public and private sectors. Main program will include Health Education, Public Health Administration, Health Information Systems and Computer Programming, over Environmental Health.

The aim of the faculty is to increase the quantity and quality of paramedical manpower. Curricula will include lectures on social sciences (eg., Health Anthropology, Sociology, Economics, Health Legislation and Law, Health Policies) and also lectures on Environmental Sciences, Biostatistics and some biomedical sciences.
10. FACULTY OF LAW

Dean : Prof. Dr. Fehim ÜÇİŞIK
Assistant Deans: Prof. Dr. Cevdet YAVUZ
               Prof. Dr. Feridun YENİSEY

Language of Instruction: Turkish

The Faculty of Law was established on 20th of July 1982 in İstanbul. The Education period of the faculty is 4 years (8 semesters).

The undergraduate curriculum leading to the Bachelor's degree in Law is designed to provide a basic knowledge of the Turkish Legal System to all students during the first year, allowing for increasing specialization in the upper classes.

The departments of the Faculty of Law do not conduct separate undergraduate programs; there is only one undergraduate program leading to a Bachelor's degree in Law.
DEPARTMENT OF PRIVATE LAW

Head of Department : Prof. Dr. Fahiman TEKİL
Professors : Teoman AKÜNAL, Nurî ÇELİK, İbrahim YENİSEY, Ergun ÖNEN, Ata SAKMAR, Cevdet YAVUZ, Selçuk ÖZTEK, Emin ARTUK, Aslan GÜNxDÜZ, Haluk KABAALİOĞLU, Mehmet A. AYDIN, Mehmet C. AKAD, Vildan SERİN, M. Kemal OMAĞ, Bülent TAHIROĞLU, Fehim ÜÇIŞIK, Güzin ÜÇIŞIK

Associate Professors : Kamil YILDIRIM, Nur CENTEL, Hakan BAYKAL, Hayrettin ÖKÇESİZ, Turan YILDIRIM

Assistant Professors : O. Gökhan ANTALYA, Aydanur GÜRZÜMAR O. Berat GÜRZÜMAR, Selami KURAN Mehmet SOMER, Lerzan YILMAZ, Nevhis YILDIRIM, Nuray EKŞİ, Pervin SOMER, Serap HELVACI, Mustafa YILDIZ, Ahmet GÖKĊEN, Osman DOĞRU, Bihterin DÎNÇKOL, Nihal SABAN, Serap SOYDAN, Abdullah DÎNÇKOL

UNDERGRADUATE PROGRAM

Freshman Year

<table>
<thead>
<tr>
<th>First Semester</th>
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<tbody>
<tr>
<td>Atatürk Principles I</td>
<td>Atatürk Principles II</td>
</tr>
<tr>
<td>Civil Law</td>
<td>Roman Law</td>
</tr>
<tr>
<td>Roman Law</td>
<td>Constitutional Law</td>
</tr>
<tr>
<td>Constitutional Law</td>
<td>Introduction to Law</td>
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<tr>
<td>Introduction to Law</td>
<td>Economy II</td>
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<tr>
<td>Economy I</td>
<td>Turkish II</td>
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<td>Turkish I</td>
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<td>Elective</td>
<td>Foreign Language II</td>
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<td>Foreign Language I</td>
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## Sophomore Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>Law of Obligations (General)</td>
<td>Law of Obligations (General)</td>
</tr>
<tr>
<td>Public International Law I</td>
<td>Public International Law II</td>
</tr>
<tr>
<td>Administrative Law</td>
<td>Administrative Law</td>
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<tr>
<td>Criminal Law (General) I</td>
<td>Criminal Law (General) II</td>
</tr>
<tr>
<td>History of Turkish Law I</td>
<td>History of Turkish Law II</td>
</tr>
<tr>
<td>Finance I</td>
<td>Finance II</td>
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<td>Elective</td>
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<tr>
<td>Fine Arts I</td>
<td>Fine Arts II</td>
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<tr>
<td>Foreign Language III</td>
<td>Foreign Language IV</td>
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## Junior Year

<table>
<thead>
<tr>
<th>First Semester</th>
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<tbody>
<tr>
<td>Civil Law (Law of Property)</td>
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<tr>
<td>Law of Obligations (Special)</td>
<td>Law of Obligations (Special)</td>
</tr>
<tr>
<td>Commercial Law I</td>
<td>Commercial Law II</td>
</tr>
<tr>
<td>Criminal Law (Special)</td>
<td>Criminal Law (Special) II</td>
</tr>
<tr>
<td>Philosophy of Law &amp; Sociology of Law</td>
<td>Philosophy of Law &amp; Sociology of Law II</td>
</tr>
<tr>
<td>Law of Civil Procedure I</td>
<td>Law of Civil Procedure II</td>
</tr>
<tr>
<td>Tax Law I</td>
<td>Tax Law II</td>
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<td>Elective</td>
<td>Elective II, Semester</td>
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<tr>
<td>Fine Arts IV</td>
<td>Fine Arts V</td>
</tr>
<tr>
<td>Foreign Language V</td>
<td>Foreign Language VI</td>
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## Senior Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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</thead>
<tbody>
<tr>
<td>Civil Law (Law of Succession) I</td>
<td>Civil Law (Law of Succession) II</td>
</tr>
<tr>
<td>Commercial Law –II–</td>
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<tr>
<td>Private International Law</td>
<td>Private International Law</td>
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<tr>
<td>Law of Execution and Bankruptcy</td>
<td>Law of Execution and Bankruptcy</td>
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<tr>
<td>Labor Law &amp; Social Security Law</td>
<td>Labor Law &amp; Social Security Law</td>
</tr>
<tr>
<td>Public Law</td>
<td>Public Law</td>
</tr>
<tr>
<td>Law of Criminal Procedure</td>
<td>Law of Criminal Procedure</td>
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<td>Legal Medicine</td>
<td>Legal Medicine</td>
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<td>Elective</td>
<td>Elective</td>
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<tr>
<td>Fine Arts V</td>
<td>Fine Arts VI</td>
</tr>
<tr>
<td>Foreign Language VII</td>
<td>Foreign Language VIII</td>
</tr>
</tbody>
</table>

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Introduction to Law: Law has evolved and continues to evolve from different sources or beginnings. These sources include historical and material sources such as religion, morality and old laws. Sources of law also refers to collection of contemporary legal rules, the positive law on which a judge bases a decision.

Law of Obligations: The branch of law which treats various relations of obligation, specifically regarding contracts, torts and unjust enrichment.

Civil Law/Law of Property: That branch of civil law which deals with the relations between persons and property such as ownership, possession, mortgage.

Commercial Law: That branch of law which regulates all kinds of commercial relations.


Civil Law/Law of Succession: Intestate Succession - (Parents, other persons who may inherit) - Testate Succession Reserved portion - Transfer of estate - Partition and distribution of the estate.

Private International Law: That branch of municipal law which determines the courts of what nation has jurisdiction over a particular suit, and the law of what nation is to be applied to it.

Law of Execution and Bankruptcy: That branch of law which treats the execution or enforcement of rights and judgements, which also treats bankruptcy proceedings.

Labor Law & Social Security Law: The branch of law which treats labor relations and disputes.

Constitutional Law: That branch of the public law which treats the organization; the organs and powers of sovereignty, the distribution of political and governmental authorities and functions, and the fundamental principles which are to regulate the relations of government and citizen.

Public International Law: The body of rules which control the conduct of independent states in their relations with each other.
Administrative Law: Administrative law is a branch of public law. It is the body of rules which regulates the relations of the administrative authorities with private citizens, determines the legal status of state officials, and indicates the rights and liabilities of individuals in their dealings with these officials as representatives of the state. The procedure by which those rights and liabilities are enforced is also regulated by administrative law. In short, administrative law is the body of law built up around administrative actions and decisions.

Criminal Law: That branch of law which treats crimes and their punishment.

History of Turkish Law: The evolution of Turkish Law from its beginnings until the end of the Ottoman period.

Philosophy of Law & Sociology of Law: A survey of the main problems of philosophy of law and an introduction to the techniques of sociological analysis.

Public Law: That branch of law which deals with the state in its political capacity.

Law of Criminal Procedure: Systems of criminal procedure - The structure of the judicial system - Jurisdiction, judge and court - Parties to criminal proceedings - Evidence, burden of proof - Commencement and conduct of proceedings - Special procedures.
11. FACULTY OF MEDICINE

Dean : Prof. Dr. Nurdan TÖZÜN
Associate Deans : Prof. Dr. Kemal BERKMAN, Prof. Reşit İNCEOĞLU

Marmara University Faculty of medicine was founded in 1983. Nearly 800 students are currently enrolled, % 10 being foreigners. The teaching medium is English.

**Basic Medical Sciences Building**: Office of the Dean, registrar’s office, administrative offices, biomedical library, auditoria, conference halls, multi-disciplinary laboratories, all basic medical sciences departments, Departments of Pharmacology and Public Health are located in the historical building which was built as the first Medical School in Turkey dating back to 1907, at Haydarpaşa a district on the Anatolian side of İstanbul; The University Teaching Hospital at Altunizade, 2 km away from the Basic Medical Sciences Building, extends educational facilities for training in medicine and nursing, for undergraduate students, interns and residents. All medical sciences and surgical science departments are located at the Teaching Hospital. The medical staff of the hospital are academic members of the Faculty of Medicine.

The main aim of Marmara University Medical Faculty is to train highly qualified doctors who have attained the highest international standards and who have realized the responsibilities and obligations of modern Medicine in order to serve the world’s health and well being. All faculty members are committed to the realization of these high ideals.
DIVISION OF BASIC MEDICAL SCIENCES

Chairman : Professor Beyazit ÇIRAKOĞLU Ph.D.

Department of Anatomy

Associate Professors : Erdal ARİSAN Ph.D.
Safiye ÇAVDAR Ph.D.
Aymelek YALIN Ph.D.
Mehtap YÜKSEL Ph.D.

Department of Biochemistry

Professor Kaya EMERK, Ph.D., Chairman
Professor Yavuz TAGA, M.D., Ph.D.
Professor Süha YALÇIN, Ph.D.
Professor Nesrin Özer, Ph.D.
Associate Professor Serpil BİLSEL, Ph.D.
Assistant Professor Goncağül Haklar Ph.D.
Instructors Önder ŞİRİKÇE

Department of Biophysics

Professor Beki KAN, Ph.D., Chairman
Associate Professor Osman SAYHAN, Ph.D.
Assistant Professor Ayşe İnan GARİP, Ph.D.

Department of Deontology and Medical Ethics

Associate Professor Şefik GÖRKEY, M.D., Chairman

Department of Forensic Medicine

Associate Professor Oğuz POLAT, M.D., Chairman
Associate Professor Akif İNANICI

Department of Histology and Embryology

Associate Professor İmer OKAR, M.D., Chairman
Associate Professor Serap ARBAK
Assistant Professor Tangül ŞAN, Ph.D.

Department of Medical Biology

Professor Beyazit ÇIRAKOĞLU, Ph.D., Chairman
Assistant Professor Ayşe ÖZER, Ph.D.
Instructor Sertaç ÜLGEN, M.D.
Instructor A. İlter GÜNEY, M.D.
Department of Microbiology
Professor Cândan JOHANSSON, Ph.D., Chairman
Associate Professor Güner SÖYLETİR, M.D.
Associate Professor Funda BABACAN, M.D.
Assistant Professor Ayşegül ESKİTÜRK, M.D.
Assistant Professor Dumruł GÜLENI, Ph.D.

Department of Physiology
Associate Professor Berrak YEĞEN, M.D., Chairman
Associate Professor İnci ALİCAN
Assistant Professor Hızır KURTEL, M.D.
Assistant Professor Uğur ÖZKUTLU

Division of Medical Sciences
Chairman: Professor Mahmut BAYIK

Department of Cardiology
Professor Ahmet OKTAY, M.D., Chairman
Assistant Professor Metin OKUCU, M.D.
Instructors Ali Serdar FAK

Department of Chest Medicine
Professor Turgay ÇELİKEL, M.D.
Associate Professor Berrin CEYHAN, M.D.

Department of Child Health and Pediatrics
Professor Müjdat BAŞARAN, M.D., Chairman
Professor Elif Dağlı, M.D.
Professor Ender PEHLİVANLIOĞLU, M.D.
Associate Professor Eren ÖZEK, M.D.
Assistant Professor İşıl BARLAN, M.D.
Assistant professor Abdullah ŞAKARCAN, M.D.
Assistant professor Cengiz CANPOLAT
Instructors Mustafa BAKİR

Department of Dermatology
Associate Professor Oya GÜRBÜZ, M.D., Chairman
Assistant Professor Tülin ERGUN, M.D.
Assistant Professor Deniz YÜCEL TEN, M.D.

Department of Family Medicine
Assistant Professor Çağrı KALACA M.D.
Department of Internal Medicine
Professor Emel AKOĞLU, M.D., Chairman
Professor Tevfik AKOĞLU, M.D.
Professor Nurdan TÖZÜN, M.D.,
Professor Nefise BARLAS Ulusoy, M.d.
Professor Mahmut BAYIK, M.D.
Professor Cem KALAYCI, M.D.
Professor Sema AKALIN, M.D.
Associate Professor Volkan KORTEN, M.D.
Associate Professor Ö. Necip AYTUĞ, M.D.
Associate Professor Coşkun TECİMER, M.D.
Associate Professor Çetin ÖZENER, M.D.
Assistant Professor Haner DIRESKENELİ, M.D.
Assistant Professor Şükran ÖZGÜN, M.D.
Instructors Emel DEMIRALP

Department of Neurology
Professor Sevinç AKTAN, M.D., Chairman
Professor ÖNDER Us, M.D.
Assistant Professor Canan AYKUT, M.D.
Assistant Professor Tülin TANRIDAĞ, M.D.

Department of Nuclear Medicine
Associate Professor Turgut TUROĞLU, M.D., Chairman

Department of Pharmacology
Professor Kemal BERKMAN, M.D., Chairman
Professor Şule OKTAY, M.D., Ph.D.
Associate Professor Filiz ONAT, M.D., Ph.D.

Department of Physical Therapy and Rehabilitation
Professor Önder KAYHAN, M.D., Chairman
Associate Professor Gülseren AKYÜZ, M.D.
Associate Professor Zeynep GÜVEN, M.D.
Assistant Professor Nadire ÖZARAS, M.D.

Department of Psychiatry
Professor Esat GÖKTEPE, M.D., Chairman
Professor Sefa SARIBEYOĞLU, M.D.
Assistant Professor Meral BERKEM, M.D.
Associate Professor Hakan YÖNEY, M.D.
Associate Professor Yankı YAZGAN, M.D.
Associate Professor Ahmet C. ARZIK, M.D.
Department of Public Health
Professor Şanda ÇALI, M.D., Chairman
Professor Osman HAYRAN, M.D.
Associate Professor Melda KARAVUŞ, M.D.
Assistant Professor Hande GENÇEL, M.D.

Department of Radiology
Professor Canan ERZEN, M.d., Chairman
Professor Nevzat GÜRMEN, M.D.
Associate Professor Tuğrul BİREN, M.D.
Assistant Professor Davut TÜNEY, M.D.
Assistant Professor M. Nihat KODALLI, M.D.

Department of Thoracic Diseases
Professor Turgay ČELİKEL M.D.
Associate Professor Berrin CEYHAN M.D.

DIVISION OF SURGICAL SCIENCES
Chairman: Professor Rifat YALIN, M.D.

Department of Anesthesiology and Reanimation
Professor Yılmaz GÖĞÜŞ, M.D., Chairman
Assistant Professor Nigar BAYKAN, M.D.
Instructor Uğur Öztaşkent EROL, M.D.
Instructor Zeynep ETİ, M.D.

Department of First Aid and Emergencies
Professor Ferrah ŞİMŞEK M.D.

Department of General Surgery
Professor Rifat YALIN, M.D., Chairman
Professor Özdemir AKTAN, M.D.
Professor M. Reşit İNCEOĞLU, M.D.
Associate Professor Cumhur YEĞEN, M.D.

Department of Neurosurgery
Professor Necmettin PAMIR, M.D., Chairman
Associate Professor Memet ÖZEK, M.D.
Assistant Professor Ali ZIRH, M.D.
Instructors İihan ELMACI
Department of Obstetrics and Gynecology
Professor Sakip PEKİN, M.d., Chairman
Professor Nejat CEYHAN, M.D.
Associate Professor Fatih DURMUŞOĞLU, M.D.
Associate Professor Mithat ERENUS, M.D.
Assistant Professor Zehra KAVAK

Department of Ophthalmology
Professor Haluk KAZOKOĞLU, M.D., Chairman
Associate Professor Ahmet TEMEL, M.D.
Associate Professor Mehdi ÖĞÜT, M.D.
Assistant Professor Tayfun BAVBEK, M.D.

Department of Orthopedics and Traumatology
Professor Osman Güven, M.D., Chairman
Associate Professor Tanıl ESEMENLİ, M.D.
Associate Professor Selim YALÇIN, M.D.
Assistant Professor Mustafa KARAHAN, M.D.

Department of Otorhinolaryngology
Professor Mehmet Ali ŞEHİTOĞLU, M.D., Chairman
Associate Professor Cüneyt ÜNERI, M.D.
Associate Professor Çağlar BATMAN, M.D.
Associate Professor Alper TUTKUN, M.D.

Subdepartment of Audiology
Professor Ferda AKDAŞ, Ph.D.
Associate Professor Nevma MADANOĞLU, Ph.D.
Instructor Ufuk ARIBAL, Ph.D.
Assistant professor Sezer ÖZBAYIR, Ph.D.

Department of Pathology
Professor Sevgi KÜLLÜ, M.D; Chairman
Professor Aydın SAV, M.D.
Associate Professor Süreyya ÜLKER, M.D.
Associate Professor Tülay TECİMER, M.D.
Assistant Professor Rengin AHISKALI, M.D.
Assistant Professor Çiğdem Atalı ÇELİKEL, M.D.
Assistat professor Füsun FİLİZEL
Instructor GülsünEKİÇİOĞLU

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Department of Pediatric Surgery
Associate Professor Tolga DAĞLI, M.D., Chairman
Assistant Professor Serdar İSKİT, M.D.
Instructors Gürsu KİYAN

Department of Plastic and Reconstructive Surgery
Professor Ayhan NUMANOĞLU, M.D., Chairman
Assistant Professor Özhan ÇELEBİLER, M.D.
Assistant Professor Mehmet BAYRAM İÇLI

Department of Thoracic Surgery
Associate Professor Mustafa YÜKSEL, M.D., Chairman
Instructors Serdar AKGÜN

Department of Urology
Professor Atif AKDAŞ, M.D., Chairman
Professor Ferruh ŞİMŞEK, M.D.
Professor Yalçın İLKER, M.D.
Associate Professor Levent TÜRKERİ, M.D.
Associate Professor Sedef YENİCE

Medical English Teaching Staff: Vera BULGURLU
Oya EMERK

MEDICAL EDUCATION

At the Marmara University Faculty of Medicine, the language of instruction is in English. On admission to the Faculty of Medicine, students are required to take a proficiency examination in English. The candidates found to be proficient in English will become first-year students. Otherwise they will be required to complete a one-year preparatory class.

The medical education is divided into 6 phases, the last being a one-year internship.

Phases I, II and III:

According to the integrated system, teaching in the basic and clinical medical sciences is arranged in such a manner that a particular system is discussed in an integrated and coordinated program.
Phase I: Basic Medical Sciences Subject Committee I and II: Organic Chemistry, Biochemistry, Medical Biology, Physics Behavioral Sciences, Medical Ethics, Biostatistics, Medical English, nonmedical courses.

Cell Biology and Tissue Biology Subject Committees: Anatomy, Biophysics, Biochemistry, Embryology and Histology, Physiology, Microbiology, Medical English and nonmedical courses.

Phase II: Cardiovascular and Respiratory Systems, Metabolism, Neuroendocrine and Reproductive Systems Subject Committees: Anatomy, Biochemistry, Histology and Embryology, Microbiology, Physiology. Cellular and Tissue Injury and Chemical Agents, and Infectious Diseases Subject Committees: Allergy-Immunology, Nuclear Medicine, Pathology, Pharmacology, Public Health, Microbiology.


Phase IV: Clerkships in Child Health and Pediatrics, Internal Medicine, General Surgery, Obstetrics and Gynecology.


Phase VI: 12 month-internship in Obstetrics and Gynecology, Internal Medicine, Child Health and Pediatrics, Public Health, Emergency Medicine, Psychiatry, Elective.

POSTGRADUATE EDUCATION

A) Residency programs leading to the Turkish Speciality Board Certificates in all Basic and Clinical Medical Sciences.
B) M.S. and Ph.D. Programs are offered by the Institution of Health Sciences of Marmara University mainly in all basic medical sciences.
12. FACULTY OF PHARMACY

Dean : Prof. Dr. K. Turay YARDIMCI
Assistant Deans: Prof. Dr. Meral KEYER UYSAL
               Assoc. Prof. Dr. Müşfit PEKİN

The nucleus of the Faculty of Pharmacy was founded in the academic year of 1963-64 as a private College of Pharmacy (Özel İstanbul Eczacılık Yüksek Okulu). Then on July 9, 1971 this private College of Pharmacy was affiliated with İ.I.T.I.A. (İstanbul Academy) with the name of Eczacılık Yüksek Okulu. In 1979 its name was changed to the Faculty of Pharmaceutical Sciences (İ.I.T.I.A. Eczacılık Bilimleri Fakültesi) and on July 19, 1982 it became the Faculty of Pharmacy of Marmara University with a four year study program which leads to a pharmacist’s diploma.

The academic and administrative organization consists of the dean, 2 assistant deans, the administrative council, the faculty council and the faculty and administration members. There are three main departments, each consisting of various sections namely:

1 – Department of Basic Pharmaceutical Sciences
   1 – Biochemistry
   2 – Analytical Chemistry
   3 – Pharmaceutical Botany
   4 – Pharmaceutical Microbiology
   5 – Pharmaceutical Basic Sciences
2 - Department of Pharmaceutical Professional Sciences
   1 - Pharmacognosy
   2 - Pharmacology
   3 - Pharmaceutical Chemistry
   4 - Pharmaceutical Toxicology

3 - Department of Pharmaceutical Technology
   1 - Pharmaceutical Technology
   2 - Pharmaceutical Biotechnology
      a) Cosmatology subsection

The departments do not conduct separate undergraduate programs; there is only one undergraduate program leading to a bachelor's degree in pharmacy.

100 to 110 students are enrolled each year to our Faculty. The M.S. and Ph.D. programs are also conducted in each department under the organization of the graduate school named "Institute of Health Sciences, Marmara University".

The entrance to the universities in Turkey are organized by the central system under the authority of the Higher Education Organization (Yükseköğretim Kurulu Başkanlığı, Bilkent-Ankara). The high school or equivalent graduates could enter to the central general exams. For the entrance to our Faculty, the candidates are chosen according only to their performances (grades received) in these general exams mainly on biology, chemistry and physics and to a lesser extent on Turkish and mathematics.

In order to enter to the final examination in a course, a student must attend to 70 % of the theoretical course hours and 80 % of the practical course hours. There is one mid term examination which makes 40 % of the final grade. Final examination makes 60 % of the final grade. To pass a course, both the final examination and the final grade should be 50 out of 100 grade points. Only one conditioning examination is given where the passing grade is again 50 points.

The student also has to complete a 3 months practice (externship) in a private or hospital pharmacy, in industry or its like and has to perform satisfactorily in the exam given by the Faculty on this practical work. The student has to complete all of the requirements within 7 years.

The graduates could practice in private or hospital pharmacies, or work in industrial research, production, quality control or marketing. They also have the opportunity to work in the clinical biochemistry, pathology or microbiology laboratories of hospitals under supervision of the specialist on work, in the central or peripheral units of the Ministry of Health as a specialist or work in Social Welfare as administrators or they go into academic training.
DEPARTMENT OF BASIC PHARMACEUTICAL SCIENCES

Head of Department : Prof. Dr. Emre DÖLEN
Professors : Adile ÇEVİKBAŞ, Emre DÖLEN,
Fikret Vehbi İZZETTİN, Ertan TUZLACI,
Kevser Turay YARDIMCI
Associate Professors : Dehen ALTİNER, Müşit PEKİN
Assistant Professors : Bahar GÖKER, Musa Şahin UĞUR, Güler YALÇIN
Instructors : Ersin BAYRAKTAR, Ertuğrul YURTSEVER

DEPARTMENT OF PROFESSIONAL PHARMACEUTICAL SCIENCES

Head of Department : Prof. Dr. Gül AYANOĞLU-DÜLGER
Falk Ömer ERSOY, Meral Keyer UYSAL,
Sevim ROLLAS, Ürün YARS
Associate Professors : Buket ALPERTUNGA, Elçin GÜRKAN,
Mert ÜLGEN
Assistant Professors : Feyza ARICİOĞLU KARTAL, Neşе DOĞAN,
Gülseren TEZİÇ, Gülden Zehra OMURTAG
Instructors : Nuray AYDIN, Gülser ÖZTAN, Handan ŞATIROĞLU
DEPARTMENT OF PHARMACEUTICAL TECHNOLOGY

Head of Department: Betül DORTUNÇ, Ayla GÜRSOY
Faik Ömer ERSOY, Meral Keyer UYSAL,
Sevim ROLLAS, Ünal YARS

Associate Professors: Jülide AKBUĞA
Assistant Professors: Murat TÜRKÖZLU

UNDERGRADUATE PROGRAM

Freshman Year

First Semester
Physics
General Chemistry
Biology I
Latin Biology II
Mathematics
Intro. to Pharmaceutical Technology
Computer Science
Turkish Language and Literature I
Foreign Language I
Atatürk Principles

Second Semester
Organic Chemistry
Analytical Chemistry I
Analytical Chemistry I Lab.

Biostatistics
Anatomy
History of Pharmacy and Deontology
Foreign Language II
Turkish Language and Literature II
Atatürk Principles

Sophomore Year

First Semester
Analytical Chemistry II
Analytical Chemistry II Lab.
Biochemistry
Microbiology
Microbiology Lab.
Physiology
Fundamentals of Immunology

Second Semester
Pharmaceutical Botany
Pharmaceutical Botany Lab.
Clinical biochemistry
Clinical Biochemistry Lab.
Food Analysis
Food Analysis Lab.
Pathology
Public Health
Instrumental Analysis
Junior Year

First Semester

Pharmaceutical Chemistry I
Pharmaceutical Chemistry I Lab
Pharmaceutical Technology I
Pharmaceutical Technology I Lab.
Pharmacology I
Pharmacognosy I
Pharmacognosy I Lab.

Second Semester

Pharmaceutical Chemistry II
Pharmaceutical Technology II
Pharmaceutical Technology I Lab.
Pharmaceutical II
Pharmaceutical II Lab.
Pharmacognosy II
Pharmacognosy II Lab.
Cosmetic Science
Cosmetic Science Lab.
Pharmacokinetics
Drug Metabolism
Drug Metabolism Lab.

Senior Year

First Semester

Pharmaceutical Chemistry III
Pharmaceutical Chemistry III Lab.
Pharmaceutical Technology III
Pharmaceutical Technology III Lab.
Pharmacognosy III
Pharmacognosy III Lab.
Pharmacy Law and Pharmacy Management
Medical First Aid
Toxicology
Toxicology Lab.

Second Semester

Pharmaceutical Chemistry IV
Pharmaceutical Chemistry IV Lab.
Pharmaceutical Technology IV
Pharmaceutical Technology IV Lab.
Pharmacognosy IV
Pharmacognosy IV Lab.
Applied Pharmacology

Psychotropic Drugs
Biopharmaceutics
Pharmaceutical Toxicology
Clinical Pharmacy

COURSE DESCRIPTIONS

Biochemistry: This course covers the basic principles of biochemistry to help the pharmacy students to understand the functional and pathological biochemistry. The role of biochemistry in drug monitoring and in clinical pharmacy is also covered briefly. Structure and metabolism of carbohydrates, lipids, proteins, and nucleic acids together with enzyme kinetics, bioenergetics. Hormone actions, vitamins, anions and cations are the main topics.

Clinical Biochemistry and Clinical Biochemistry Laboratory: Serum analysis of urea, uric acid, creatinin, glucose, total lipid, cholesterol, protein, bilirubin, transaminases and urine analysis and serum electrophoresis are the main experiments per-
formed in this laboratory. Also the biochemical parameters are evaluated with respect to pathological conditions and therapeutic monitorin in the theoretical part of this course.

Clinical Pharmacy: This course describes the clinical pharmacy as a health science specialty which includes the application of pharmaceutical and biomedical sciences on patient care. During this course topics on philosophy of pharmacy practice, and roles of clinical pharmacists in minor and major diseases will be covered.

Biology I: Living systems, ultrastructure and function of the cell organelles, enzymes, genetic expression and genetic control of gene expression are the main topics.

Biology II: Cell division, developmental biology, reproduction biology, gametogenesis, immunobiological problems, twensetiology, teratobiology, histology, chronobiology, gerontology, sitogerontology, immunobiology, aerobiology, evolution, taxonomy are the main topics.

Analytical Chemistry I: Introduction to analytical chemistry, concentrations of solutions, analytical separations, equilibrium in aqueous solutions, acids and bases, pH calculations, hydrolysis, buffer solutions, solubility, solubility product calculations are the main topics covered in this course.

Analytical Chemistry II: Introduction to volumetric analysis, acidimetric and alcalimetric methods, precipitation titrations; redox titrations, complex formation and complexometric methods, gravimetric methods, are the main topics covered in this course.

Instrumental Analysis: Introduction to instrumental methods, UV-Vis region molecular absorption spectroscopy, qualitative and quantitative spectrotekotometric determinations, fluorimetry, nephelometry, turbidimetry, electroanalytical methods are the main topics.

Analytical Chemistry I Lab.: Qualitative analysis of cations and anions are the main topics covered in this laboratory.

Analytical Chemistry II Lab.: Volumetric, gravimetric and instrumental quantitative analysis are the main topics covered in this laboratory.

History of Pharmacy and Deontology: Pharmacy in ancient civilizations, Islamic era, European middle ages, modern times, during the Ottoman Empure, pharmaceutical education and industry in Turkey are the main topics covered in this course.

Psychotropic Drugs: Chemical structures of psychotropic drugs, their structure-activity relationships, biotransformations, chemical analysis methods, psychotropic drugs with plant origin, pharmacology of psychotropic drugs, types and possible
mechanisms of dependence, their therapy, psychosocial aspect of dependence and toxicology of psychotropic drugs.

**Pharmaceutical Botany:** In the introduction part, plant taxonomy, plant identification, flora of Turkey, drugs, active substances of plants are discussed. In the plant morphology part, root, stem, leaves, flower, inflorescence, fruit are discussed. In this division families in systematical order and medical, poisonous and useful plants are introduced. Their morphological characters, distributions, uses and active chemical substances are also discussed.

**Pharmaceutical Microbiology:** Biology of microorganisms, bacteria, fungi, viruses, principles of microbial pathogenicity and epidemiology is given in the first part. In the second part. Antimicrobial agents, types of antibiotics and synthetic antimicrobial agents, clinical uses of antimicrobial drugs, manufacture of antibiotics, principles of methods of assaying antibiotics, mechanism of action of antibiotics, bacterial resistance to antibiotics, mode of action of non-antibiotic antibacterial agents, resistance to non-antibiotic antibacterial agents and in the third part microbiological aspects of pharmaceutical processing, ecology of microorganisms as it affects the pharmaceutical industry, contamination of non-sterile pharmaceuticals in hospitals and community environments, principles and practice of sterilization, sterile pharmaceutical products, production of therapeutically useful substances by recombinant DNA technology, additional applications of microorganisms in pharmaceutical sciences are the main topics covered in this course.

**Pharmaceutical Microbiology Laboratory:** Sterilization control and sterility testing, principles of methods of assaying antibiotics, factors affecting the disinfection process, evaluation of liquid disinfectants, semi-solid antibacterial preparations solid disinfectants, evaluation of air disinfectants, preservatives, microbial spoilage and preservation of pharmaceutical products and; identification of bacteria are the main topics covered in this course.

**Fundamentals of Immunology:** Historical aspects of immunology, non-specific defence mechanisms, specific defence mechanisms, cells involved in immunity, hypersensitivity tissue transplantation immunity, monoclonal antibodies, uses of monoclonal antibodies, the manufacture and quality control of immunological products vaccines, immunosera, human immunoglobulins are the main topics covered in this course.

**General Chemistry:** Chemical laws, properties of matter, atomic structure, periodic table, chemical bonds, chemical reactions and chemical calculations, fundamentals of spectroscopy and spectroscopic methods, gases and las laws, liquids, solids, properties of solutions, chemical thermodynamics, thermochemistry, reaction kinetics, equilibrium, chemistry of most metals and metals are the main topics covered in this course.

**Mathematics:** Numbers, logarithms, equations, differentials, derivatives, errors and integrals are the main topics covered in this course.
Physics: Measurement and the scientific method, the description of motion, the causes of motion, work, energy and machines, the properties of gases, pressure and the circulatory system, further medical applications of pressures in fluids, molecular phenomena related to biological processes, internal energy, heat and temperature, the effects of heat energy, introduction to electricity and magnetism, practical electric circuits, bioelectricity, elasticity and wave motion, the physics of vision, nuclear changes and radiation are the main topics covered in this course.

Pharmaceutical Chemistry I: Nomenclature of organic compounds, functional groups, synthesis, use and biotransformations of drugs ie barbituric acid derivatives, general anesthetics, hypnotics and sedatives and analgesics and structure-activity relationship on these drug molecules are given. The quantitative analysis of organic drug molecules using titrimetric techniques ie acidimetry, alkalimetry and nitritometry are also demonstrated in the practicals.

Pharmaceutical Chemistry II: Synthesis, use, structure-activity relationships and biotransformations of drugs ie physicoactive drugs, central-stimulant drugs, antihistaminics, antidiabetics, hormones, vitamins, peptides, X-ray contrast drugs, gastrointestinal system drugs are given. The quantitative analysis of organic drug molecules using titrimetric techniques ie iodometry and bromometry together with spectrophotometric analysis are also demonstrated in the practicals.

Pharmaceutical Chemistry III: Synthesis, use, structure-activity relationships and biotransformations of drugs ie diuretics, coagulant drugs, anticoagulant drugs, respiratory system drugs, cholinergic and anticholinergic drugs, sympathomimetic amines and cardiovascular agents are given. Qualitative analysis of drug molecules, solubility tests, functional group and elemental analysis are also demonstrated in practicals.

Pharmaceutical Chemistry IV: Synthesis, use, structure-activity relationships and biotransformations of drugs ie antibiotics, sulphonamides, antiviral, agents, antineoplastics, tuberculostatics, and antiseptics are given. Synthesis and purification techniques of organic molecules and related drug molecules using specific reactions and several techniques ie distillation, crystallization and extraction are also demonstrated in the practicals.

Drug Metabolism: Phase I and Phase II reactions and enzymology of drug metabolism reactions, unmetabolized compounds, factors affecting drug metabolism reactions, non-enzymatic drug metabolism, novel metabolic reactions, pro-drugs, activation and inactivation in drug metabolism, structure-metabolic activity relationships (steric, electronic effects logP, pKa), characteristics of drug metabolites, experimental techniques in drug metabolism reactions with several examples from previous studies are given. Experiments in drug metabolism, in vitro and vivo techniques, chromatographic and spectroscopic techniques in drug metabolism experiments (TLC, HPLC, GC, UV, MS), preparation of biological systems, incubations, extractions from biological systems, synthesis, stability and characterisations of potential metabolites are demons-
treated in practicals. Both in vivo practical work and preparation of reports from these experiments were also required from students in practicals.

**Pharmacognosy I:** Carbohydrates, gums, musilages, flavonoids, glycosides, sapo-nins, iridoids and tannins are the main topics in this course.

**Pharmacognosy II:** Methods in drug quality and control, preliminary experiments, isolation methods, radiotracer methods, assays, fixed oils, fats, waxes, resins, latex and amino acids are the main topics in this course.

**Pharmacognosy III:** Alkaloids is covered in detail in this course.

**Pharmacognosy IV:** Volatile oils and antibiotics are covered in detail in this course.

**Pharmacology I:** An intensive instruction of general pharmacology is given. The biopharmaceutical factors that effect drug absorption, autocoids, chemotherapeutics and autonomic pharmacology are also covered during this course.

**Pharmacology II:** Cardiovascular pharmacology. Central nervous system pharmacology and endocrine pharmacology are covered during this course. Also a brief demonstration of some laboratory methods in pharmacology is given.

**Applied Pharmacology:** This course is aimed at giving a comprehensive overview of drug use in some pathological conditions. Drugs used in cardiovascular diseases, drugs used in respiratory diseases, drugs used in gastrointestinal diseases, drugs used in treating anemias are covered in this course.

**Pharmakokinetics:** Definition of rate processes and pharmakokinetics of absorption, distribution and elimination are given. Single dose and multiple dose drug administration, calculation of dosage regimen and principles governing steady state plasma drug levels are also discussed.

**Physiology:** This course is aimed to give a comprehensive overview of physiology. Physiology of cell, blood, gastrointestinal, respiratory, cardiovascular, central nervous system, autonomic system, renal and endocrine system are covered in this course.

**Anatomy:** Introduction to anatomy; the parts of human corpus, systems in anatomy, systema digestorium, cardiovascular system, urogenitale system, nervous system, sensotory organs are the main topics covered in this course.

**Pathology:** Definition of pathology, causes of the diseased states, cell structure and functions, cell injury, inflammation, immune system disorders, genetic disorders, neoplasim, drugs and chemical substances related to cell injury, infectious diseases, systematic pathology e.g. peptic ulcer, kidney failure and atherosclerosis are the main topics covered in this course.
Toxicology: Introduction to toxicology, characteristics of exposure to toxic substances, absorption, distribution, biotransformation and elimination of toxic substances, toxic effects on different body systems, the procedures of the toxicological evaluation of toxic substances, sign, symptoms and treatment measures in acute and chronic intoxications, isolation and identification of toxic substances are the main topics covered in this course.

Pharmaceutical Toxicology: Toxic effects of pharmaceuticals to be used medically and prophylactically, studies in risk assessment design and production of safer drugs, stabilization of poisonings due to drugs are the main topics covered in this course.

Public Health: Introduction to basic public health concepts, personal hygiene, environmental hygiene, factors effecting human health, the role of the pharmacist as a member of public health services are covered theoretically.

Pharmacy Law and Pharmacy Management: The law and regulations related to pharmacy and pharmaceuticals in Turkey, legal and ethical responsibilities in the practice of pharmacy, topics relevant to establishing and managing a pharmacy, business law principles as applied to the management of a pharmacy practice are covered theoretically.

Food Analysis: Description and classification of food, elements of nutrition and food products, knowledge about food production, food additives and food contaminants, methods and goals of food control, the law and regulations of food analysis are covered.

Medical First Aid: Sterilization, asepsis and antisepsis, hemorrhage (symptoms and treatment), shock (clinical finding and symptoms and treatment), surgical infections (septicemia, pyohemia, abscess, erysipelas, flegmon, tetanus, gas gangrene, mycotic infections (actinomycosis, blastomycosis) soft tissue and bone injuries and treatment, heart and respiratory reanimation, asfexia in water, injections and methods, carbon monoxide poisoning, DDT poisoning and treatment hemoptisi, hematuri, melena, hematemesis are the main topics covered in this course.

Introduction to Pharmaceutical Technology: Basis definitions of pharmaceutical technology, pharmaceutical unit operations, and introductions to preparations are the main topics covered in this course.

Pharmaceutical Technology I: Water for pharmaceutical preparations, solubility phenomenon, liquid dosage forms, rheology, colloidal dispersions, suspensions and emulsions are the main topics covered in this course.

Pharmaceutical Technology I: Water or pharmaceutical preparations, solubility phenomenon, liquid dosage forms, rheology, colloidal dispersions, suspensions and emulsions are the main topics covered in this course.
Pharmaceutical Technology II: Ointments, suppositories, and radiopharmaceuticals, aerosols, hormones, enzymes and surgical dressing are the main topics covered in this course.

Pharmaceutical Technology III: Powders, tablets, capsules, and controlled-release dosage forms, veterinary preparations and packaging materials are the main topics covered in this course.

Pharmaceutical Technology IV: Parenteral preparations, contamination, sterilization, stability, and incompatibility, GMP and hospital pharmacy are the main topics covered in this course.

Cosmetic Sciences: Raw material of cosmetic industry, regulations related to cosmetics, GMP for cosmetics, skin and hair physiology, hair dyes, shampoos, antiperspirants, sunscreens, moisturizer skin lotions, color cosmetics, and shaving preparations are the main topics covered in this course.

Introduction to Pharmaceutical Technology: Literature of pharmacy, prescriptions-abbreviations, weighing-measuring-drying-filtration-mixing-powdering, dosage forms are the main topics covered in this course.

Biopharmaceutics: Introduction-ingredients of administration-effect of ingredients and formulation factors-dissolution test-factor related to drug-physiological factors and measurement of bioavailability are the main topics covered in this course.
13. FACULTY OF TECHNICAL EDUCATION

Dean : Prof. Dr. İhsan GÖK
Assistant : Prof. Dr. İrfan YÜKLER, Prof. Dr. İrfan GÜNEY

The aim of the Faculty of Technical Education is, in accordance with the policy of the Turkish National Education, to educate highly skilled students with sound technical and pedagogical backgrounds, as technical teachers for the vocational and technical schools and vocational high schools as well as highly skilled technologists to the industry.

In order to achieve this objective, the undergraduate curriculum leading to the B.Sc. degree is designed to provide a basic knowledge of fundamental science and technology subjects to the students during the early years, allowing for increasing specialization in the upper classes.

The faculty is composed of seven departments: Department of Education, Department of Electronics and Computer Education, Department of Electrical Education, Department of Mechanical Education, Department of Textile Education, Department of Printing Education, Department of Metals Technology Education.
DEPARTMENT OF EDUCATION

Head of Department : Associate Professor Dr. Ülkü UZUNÇARŞILI
Assistant Professors : Dr. Semra ÜNAL, Dr. Mustafa MERAL
Instructors : Fahri ÜNAL, Nuriye ÇAM

The Department of Education conducts an education program in technical teacher education for all technological departments of the Faculty, such as Electronics, Electrical, Mechanical, Textile, Printing, and Metals Education. The Department also conducts a master program in Technology Education. In addition to these activities, the department carries out researches and gives training to technical teacher candidates.

Main Fields of Studies:
1. Psycho-technique and Psychological and Vocational
2. Curriculum Development
3. Educational Technology

Laboratory Studies :
Micro-teaching to Student teachers,
Psycho-technical skills,
Dexterity measurement

Language of Instruction: Turkish

UNDERGRADUATE PROGRAM
Freshman Year

First Semester
There is no education course in this semester

Second Semester
EGT 182 The Principles of Technical and Vocational Education
Sophomore Year

First Semester

EGT 281 The Individual and Learning Process
EGT 283 The Student and Group Processes

Second Semester

EGT 282 Job Analysis and Programme Development
EGT 284 Teaching Methods

Junior Year

First Semester

EGT 381 Measurement and Evaluation in Education
EGT 383 Educational Technology

Second Semester

EGT 382 Micro-teaching
EGT 384 Vocational Guidance

Senior Year

First Semester

EGT 481 Elective Course in Educ (One Module Only)
Educational Administration
Computer Aided Learning
Educational Research

Second Semester

EGT 482 Teaching Practice
(15 Weeks one day every week)

COURSE DESCRIPTIONS

EGT 182 The Principles of Technical and Vocational Education: This course defines the essential concepts and principles of technical and vocational education with its historical background and also the development within the national education system. Legal aspects and rules and laws related with vocational and technical education are given in this course. Technical and vocational curriculum development, School - industry relationships, The problems of vocational and technical education.

EGT 281 The Individual and Learning Process: This aim of this course is to enable the student teacher to identify the difference between individual students and be aware of the different developmental stages. Describe some of the basic principles that relate human learning process. Plan and prepare lessons that take into account an understanding of human learning process.

EGT 282 Job Analysis and Curriculum Development: This course describes the principles of program development and main types of program, the role and pur-
pose of learning outcomes in Education. Defines how to carry out job, task and skill analysis and curriculum development. Select and arrange an appropriate teaching learning situation and curriculum assessment.

**EГT 283** The Learner and Group Processes: The aim of this course is to enable the trainee teacher to; describe the relationship between education and the process of socialization. Account for social mobility. Describe the role of the school as a social institution. Be aware of the effects of group dynamics in the school. Understand the role of the teacher.

**EГT 284** Teaching Methods: The aim of this course is to enable the trainee teacher to; describe and apply a range of teaching methods and technique and plan teaching and learning activities. Apply research-analysis and assignments.

**EГT 381** Measurement and Evaluation in Education: The aim of this course is to enable the student teacher to; discuss the role and importance of measurement and evaluation in the educational process. Describe the fundamental concepts of involved in measurement and evaluation. Describe the characteristic of measurement instruments. Describe measuring instruments appropriate to cognitive, psychomotor and affective behaviours. Describe the use and application of standardisation techniques. Apply evaluation techniques to teaching.

**EГT 382** Micro-Teaching: In this course, the micro-teaching methods, its effectiveness in teaching and how to plan a lesson by using micro-teaching methods are broadly defined.

**EГT 383** Educational Technology: The aim of this course is to enable the trainee teacher to describe the history and development of technology in education. Describe the relationships between communication and learning. Describe the traditional teaching methods and modern developments in Educational Technology. Develop teaching and learning when required.

**EГT 384** Vocational Guidance: Upon completion of this course, the trainee will be able to; gather student data using formal data collection techniques and provide student data through personal contacts. Use conferences to help student needs. Provide information on educational and career activities. Carry out necessary administrative duties. Prepare implementation files.

**EГT 481** Educational Administration (Elective Course in Education): The aim of this course is to enable the student to understand and accept the school as an open system with system approach. To know and use processes such as planning, decision making, organizing, communication and controlling in schools. Also the sub-systems such as budgeting, course programming, student and educational employers are studied with related laws and regulations.

**EГT 481** Computer Aided Learning (Elective Course in Education): The aims of this course are to enable the student to; appreciate the various ways in which computers can be used as learning devices. Be aware of the wide range of learning
materials currently available. Understand the various types of computer aided learning programs currently in use and be able to use computers as learning devices in different teaching/learning situations.

EGT 481 Educational Research (Elective Course in Education): The aims of this course are, to demonstrate knowledge of the concepts and procedures involved in historical research, descriptive research and experimental research. Apply research tools to solve an educational problem. Apply descriptive and inferential statistic to solve an educational problem. Also demonstrate knowledge of research report requirements.

EGT 482 Teaching Practice: The aim of the course is to enable the student to prepare implementation plans. Effectively observe lessons conducted in classrooms. Produce materials in preparation for teaching. Carry out teaching activities. Carry out necessary administrative duties. Prepare implementation files.
DEPARTMENT OF ELECTRICAL EDUCATION

Head of Department: Prof. Dr. İrfan GÜNEY
Associate Professor: Dr. F. Semra ÖZTÜRK
Assistant Professor: Dr. Fevzi KENTLİ
Instructors: Reşit ERÇETİN, Kayhan UĞURTAN, İbrahim KALKINAN, Mustafa SUNGUR, Yaşar BİR’BİR, Koray TUNÇALP, Adnan KAKİLLİ, Fuat BÜYÜKTÜMTÜRK, Caner AKÜNER

Language of Instruction: Turkish

The Department of Electrical Education offers an undergraduate program leading to a Bachelor's Degree in Electrical Education. The aim of the department is to educate the students as Technical Teachers in undergraduate level. The graduates work both in technical high schools and industry. The Electrical Education program has three main field of studies: The Electrical Technology, Industrial Electrotechnique Technology, Measurement and Instrumentation Technology. These programs have electives and compulsory basic courses based on electrical technology. In addition, three programs have pedagogical courses.

Laboratories:

The department has the following laboratories:

- Electronics and power electronics lab.
- Measurement technology and electrical circuit lab.
- Electrical machines lab.
- Illumination and electrical installation technology lab.
- Winding technology lab.
- Power systems lab.
## UNDERGRADUATE PROGRAM

### Freshman Year

**First Semester**
- **KÜL** 193 Turkish I
- **KÜL** 195 Atatürk Principles
- **KÜL** 197 Foreign Language I
- **FEN** 101 Mathematics I
- **FEN** 103 Physics I
- **FEN** 105 Chemistry
- **ELK** 111 Circuit Components and Measurement Laboratory I
- **MAK** 115 Technical Drawing

**Second Semester**
- **KÜL** 194 Turkish II
- **KÜL** 196 Atatürk Principles
- **KÜL** 198 Foreign Language II
- **FEN** 102 Mathematics II
- **FEN** 104 Physics II
- **EGT** 182 The Principles of Technical and Vocational Education
- **ELK** 112 Circuit Components and Measurement Laboratory II
- **ELK** 114 Electrical Materials
- **ELC** 116 Computer Education

### Sophomore Year

**First Semester**
- **FEN** 201 Mathematics III
- **EGT** 281 Individual and Learning Process
- **EGT** 283 Student and Group Processes
- **ELK** 211 Electric Circuits I
- **ELC** 273 Control Technique I
- **ELC** 275 Electromagnetic Fields I
- **ELC** 277 Computer Programming

**Second Semester**
- **EGT** 282 Job Analysis and Programme Development
- **EGT** 284 Workshop/Vocational Teaching Methods
- **ELK** 212 Electric Circuits II
- **ELK** 214 Illumination Technique and Project
- **ELK** 216 Installation Technique
- **ELC** 274 Control Technique
- **ELC** 274 Control Technique II
- **ELC** 276 Electromagnetic Fields II

### Junior Year

**First Semester**
- **EGT** 381 Measurement and Evaluation in Education
- **EGT** 383 Educational Technology
- **ELK** 311 Electrical Machines I
- **ELK** 321 Introduction to Circuit Analysis
- **ELC** 371 Electronics
- **ELC** 373 Logic Circuits
- **.....** Optional Course for Specialization

**Second Semester**
- **EGT** 382 Micro-Teaching
- **EGT** 384 Vocational Guidance
- **ELK** 312 Electrical Machines II
- **ELC** 372 Power Electronics
- **ELC** 374 Micro Processors
- **.....** Optional Course for Specialization

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### Senior Year

<table>
<thead>
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<th>Second Semester</th>
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<tbody>
<tr>
<td>EĞT 481 Elective Course in Education</td>
<td>EĞT 482 Teaching Practice</td>
</tr>
<tr>
<td>ELK 411 Electrical Networks I</td>
<td>ELK 412 Electrical Networks II</td>
</tr>
<tr>
<td>ELK 413 Power Transmission I</td>
<td>ELK 414 Power Transmission II</td>
</tr>
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<td>ELK 421 Electrical Machines II</td>
<td>ELK 460 Project II</td>
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<td>ELK 459 Project I</td>
<td>ELC 474 Automatic Control II</td>
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<td>ELC 473 Automatic Control I</td>
<td>ELC 476 Programmable Controllers</td>
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**Specialization Options**

**Option 1 – Electrical Technology Education**

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<thead>
<tr>
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<tbody>
<tr>
<td>ELK 331 Principles of Energy</td>
<td>ELK 322 Special Winding Techniques</td>
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<td>Transformation</td>
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### Senior Year

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<thead>
<tr>
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<th>Second Semester</th>
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<tr>
<td>ELK 427 Electrical Machine Design</td>
<td>ELK 422 Special Electrical Machines</td>
</tr>
<tr>
<td>ELK 461 Control of Electrical</td>
<td>ELK 428 Electrical Driving</td>
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<tr>
<td>Machines with Power Electronics</td>
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### Option-2 Industrial Electrotechnique Technology Education

### Junior Year

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<tbody>
<tr>
<td>ELK 323 Medium Voltage Networks</td>
<td>ELK 324 Protection in Electric Networks</td>
</tr>
<tr>
<td></td>
<td>ELK 326 Discharge in High Voltage</td>
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<td></td>
<td>ELK 328 Measurement Systems</td>
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### Senior Year

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<th>Second Semester</th>
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<tbody>
<tr>
<td>ELK 423</td>
<td>ELK 430</td>
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<tr>
<td>Mechanical Calculation of Transmission Lines</td>
<td>High Voltage Measurement Techniques</td>
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<tr>
<td>ELK 429</td>
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<tr>
<td>High Voltage Technique</td>
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### Option-3 Measurement and Instrumentation Technology Education

### Junior Year

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<tbody>
<tr>
<td>ELK 329</td>
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<tr>
<td>Measurement Technique</td>
<td>Measurement Technique Laboratory</td>
</tr>
<tr>
<td>ELK 332</td>
<td>ELK 334</td>
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<td>Dynamic of Measuring Instrument</td>
<td>Sensitivity Analysis in Measurement</td>
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</table>

### Senior Year

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<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>ELK 431</td>
<td>ELK 430</td>
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<tr>
<td>Industrial Measurement and Adjustment Technique</td>
<td>High Voltage Measurement Techniques</td>
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<tr>
<td>ELK 433</td>
<td>ELK 432</td>
</tr>
<tr>
<td>Measurement Components in Control</td>
<td>Quality Control and Standards</td>
</tr>
</tbody>
</table>

### COURSE DESCRIPTIONS

**ELK 111 Circuit Components and Measurement Laboratory I:** Introduction to circuit components, unit systems, description and importance of measurement, accuracy and precision in measurement, types of errors, active and passive circuit components, measurement devices and classification of its and related laboratories.

**ELK 112 Circuit Components and Measurement Laboratory II:** Types of measurement devices, measurement techniques of electric circuit components, electrodynamic and induction coiled devices, Wheatstone bridge, Kelvin bridge, measurement transformers, digital instruments, oscilloscopes and related laboratories.

**ELK 114 Electrical Materials:** Atomic structures of materials, connection types and their orders, electrical specifications of metals, magnetic specifications of metals, superconductors, semiconductors, insulators, contact materials, thermoelectric materials, ferromagnetic materials.
ELK 211 Electric Circuits I: Principles of electric circuits, laws and basic theorems, circuit analysis methods, series and shunt circuits, network theorems, practical and ideal sources, capacitance and transients in RC circuits, introduction to magnetism, Faraday’s law, inductance and transients in RL circuits and related laboratories.

ELK 212 Electric Circuits II: Introduction to A.C. circuits, RL, RC, RLC series and shunt circuits, phase relations, complex sources, current and voltage sources, star-delta transformation, A.C. circuit theorems, power, power triangle, active and reactive power, correction of power factor, series and shunt resonance circuits and related laboratories.

ELK 214 Illumination Techniques and Project: Aims of illumination, lighting theorems, lighting units, types of bulbs, examining illumination networks, lighting economy, lighting distribution diagrams, calculations and project drafting.

ELK 216 Installation Technique: Introduction to installation technique, electrical installation staff, division and branch of installation, setting lighting devices and power calculation, voltage drop determination.

ELC 273 Control Technique I: Control symbols and their applications, introduction to control components (relay, switch), examining starting methods of A.C and D.C motors by using control components, starting methods with star/delta switch and the other methods, introduction to pneumatic, pneumatic circuit components and symbols, and-or valves and related laboratories.

ELC 274 Control Technique II: Control of multi-speed A.C motors starting to slipping A.C motors, breaking systems, calculations belong to breaking and starting methods, single phase A.C motors and their control methods, elevators, introduction to pneumatics, diagrams and pneumatics components.

ELC 275 Electromagnetic Fields I: Introduction to electromagnetic fields, scalars and vectors, the cartesian, cylindrical and spherical coordinate systems, transformations between coordinate systems, Coulomb’s law, electric flux density, Gauss’s law, Maxwell’s first equations, energy expended in moving a point charge in an electric field, energy density in the electrostatic field, Poisson’s and Laplace’s equations.

ELC 276 Electromagnetic Fields II: Biot-Savart law, Amper law, magnetic flux density, electromagnetic force and their effects, limit conditions, Faraday’s and Lenz’s laws, general wave equations.

ELC 277 Computer Programming: CPU, ALU, hardware of computers, performing principles, network conception, off-line/on-line systems, data storage, introduction to DOS, FAT, loading some data, formatting disks, examining MCAD and PW.

ELK 311 Electrical Machines I: Introduction to D.C machines, excitation methods, characteristics of shunt, series and compound machines, structure of trans-
formers, emf, losses, productivity, connection types, three phase transformers, Scott and Leblanc connections.

ELK 312 Electrical Machines II: Introduction machines, single and three phase induction machines, induced voltage, slip, equivalent circuits, load-unload and short-circuit working, torque in induction motors and diagrams.

ELK 321 Introduction to Circuit Analysis: Basic concepts of circuit analysis, theorems, basic units related circuit analysis, functions, equivalence in sources, R, L, C series and shunt equivalents, circuit analysis methods.

ELK 322 Special Winding Techniques: Introduction to special winding techniques, special winding types, and their structures.

ELK 323 Medium Voltage Networks: The structure of devices used in medium voltage networks, performily description of characteristic and the principles of determination economic subjects in performing, to subcomponents of networks, calculation methods, related to selection of subcomponents.

ELK 324 Protection in Electric Networks: An explanation to the effects of electricity, safety rules, faults, fault statistics, isolation, and safety systems and components.

ELK 326 Discharge in High Voltage: Basic and experimental methods in examining, gas discharge events related to electrons and ions in vacuum, electron excitation of gas atom and other discharge events.

ELK 328 Measurement Systems: Introduction to physical measurement, sensitivity components, thermal measurement systems, electrical level control, the measurement method of speed and thermal components and their effects on electrical systems.

ELK 329 Measurement Technique: Physical measurements, sensitivity components, temperature measuring systems, electrical temperature evaluator based upon expanding basic with heat effect measuring of electrical temperature by termo-components, measuring of sensitive temperature by pyrometers, speed measuring methods, electrical level control, liquid level measuring systems, weight measuring systems.

ELK 330 Measurement Technique Laboratory: Temperature measuring, speed measuring, measuring by transducers, measuring by opto-couplers, electrical level control experiments.

ELK 331 Principles of Energy Transformation: The energy types, energy transformation, transformation diagram, energy balance equation, the principles of electromechanical energy transformation, energy and torque in multi-terminal systems, force and torque in linear and nonlinear electromechanical systems.
ELK 332 Dynamic of Measuring instruments: Mechanical parts of analog measuring instruments, bearing systems, damping systems, movement equations, moment equations, magnet and scale types used in analog measurement devices, design of analog measurement instrument.

ELK 334 Sensitivity Analysis in Measurement: Measurement sensitivity and calculations of measuring instruments, resolution, sensitivity, calibration and calibration systems.

ELC 371 Electronics: Introduction to electronics, transmission in conductor and semiconductor, current carriers, transistors and diodes and their equations, rectifiers, FETs, MOSFETs and their characteristics, amplifiers.

ELC 372 Power Electronics: Basic semiconductor physics, basic structure, I-V characteristics and switching characteristics of power semiconductor devices, drive circuits, line frequency diode rectifiers, line frequency phase controlled rectifiers and inverters, DC-DC switch-mode converters, switch-mode DC to AC inverters, resonant converters.

ELC 373 Logic Circuits: Introduction to logic circuits, BCD code systems, AS2 code, Boolean Algebra, definition of logic gates, AND, OR, NAND, NOR, EXR, EXNOR truth table, Karnaugh maps, counters, flip-flops and timers, related experiments.

ELC 374 Micro Processors: As an extension of logic circuit course RAM and ROM conceptions, memory organization, arithmetic circuits, 6803 micro computer system, OP CODE conceptions, RS-232, CENTRONIC sub units, screen driver unit and screen types.

ELK 411 Electrical Networks I: Introduction to energy systems, loss problems of energy technique, process instruments, structure of plants, plant types, safety systems.

ELK 412 Electrical Networks II: Setting networks, necessary equipments, determining network load, the principles of network calculation, network problem solution methods, network calculations, connection scheme of transformer station.

ELK 413 Power Transmission I: Description of power systems, topological classification of power systems, D.C. and A.C transmission comparison, principles of AC power transmission, per-unit calculation, line parameters and their equivalents, types of power transmission lines, characteristic impedance and natural power.

ELK 414 Power Transmission II: Stability and transient analysis of the power systems, fault types and calculation of power system faults, max. power in short circuit, symmetrical three-phase faults on synchronous machines, unsymmetrical faults on power systems, faults through impedance.

ELK 422 Special Electrical Machines: Introduction to special electrical machines, their qualities, special purposed machines, amplifiers, linear motors.

ELK 423 Mechanical Calculation of Transmission Lines: Conductors and their structure, strength calculation, forces, thermal limits, extra ice and wind loads and related calculations, detailed information about poles and pole types.

ELK 427 Electrical Machine Design: Introduction to electrical machine design, basic concepts, and calculations, losses and loss calculation.

ELK 428 Electrical Driving: Researching driving movement, driving methods of D.C motors, motor types, starting reostats, speed control in D.C motor, speed control with generators, starting to induction motor.

ELK 429 High Voltage Technique: The examining of the electron systems from point of view of being punctured, Schwarz transformation, graphics and experimental methods, dielectric losses, high voltage overhead transformation line cables, grounding systems.

ELK 430 High Voltage Measurement Techniques: High voltage and current measurement, measurement of pulse voltage, oscilloscope usage, and measurement methods for high voltages and currents.

ELK 431 Industrial Measurement and Adjustment Technique: Sensors, transducers, pressure, location, flow transducers, strain-gages, opto electronic technique, telemeter, measuring methods in remote. All adjustments done in these systems.

ELK 432 Quality Control and Standards: Importance of measurement in quality control, measuring methods done quality control, measurement standarts, ISO 9000 Standarts and ISO Standarts interested in by measurement. Calculations and experiments needed.

ELK 433 Measurement Components in Control: Over current, over voltage, low voltage, phase sequence, reactive power, speed, earth leakage, motor phase, temperature, pressure humidity, material length and thickness control relays.

ELK 459 Project I: Project is a course that is taken by each student as an individual or small group on different subjects under the instructor. The aim of this course is to give problem solving ability to the student and to be used their knowledges learned during the education period.

ELK 460 Project II: Project is a course that is taken by each student as an individual or small group on different subjects under the instructor. The aim of this course
is to give problem solving ability to the student and to be used their knowledges learned during the education period.

**ELK 461 Control of Electrical Machines With Power Electronics:** Some control methods for D.C motors, D.C motor characteristic, parameters of motors, rectifiers, transistor applications, Gaudet drivers, feedback methods, A.C motor control methods and systems, speed control.

**ELC 473 Automatic Control I:** The principles of automatic control and historical development of it, the characteristic of control system, transfer function, researching PID, block diagrams.

**ELC 474 Automatic Control II:** Mathematical models of physical systems, the response of system components to steady state and transient conditions, stability of control systems, Routh and Nyquist stability criterion, optimization in control systems.

**ELC 476 Programmable Controllers:** Introduction to programmable controllers, general structure of devices, programming by graphic method, making experiments with programmable controller, advanced arithmetic calculations and calculation methods.
DEPARTMENT OF ELECTRONICS AND
COMPUTER EDUCATION

Head of Department : Prof. Dr. Burhanettin CAN
Professors : Dr. İhsan GÖK, Dr. Sezgin ALSAN
Associate Professors : Dr. Erkan ERBARUT
Assistant Professors : Dr. İsmail DEMİR, Dr. Şemsettin KILIÇARSLAN
Instructors : Dr. Sevim AYDIN, Dr. Vatan TUĞAL, Özgül VAYVAY,
Nurhan ATEŞ, İsmail DOKURLAR, Yılmaz ÇAMURCU,
Lütfü BİLGİÇ, Recep BÖRÜ, Hüseyin ÖZCAN,
Ferdi BOYNAK, Hasan Hüseyin ÇELİK,
Erbil AKBAY, Hasan ERDAL, Özalp VAYVAY

Language of Instruction: Turkish

The aim of the Departments, in accordance with the basic principles
and general objectives of Turkish National Education policy, is to educate
technical teachers for the vocational and technical schools, vocational high
schools, and highly skilled technologists to the industry.

The electronics and computer education program has four main fields
of study: Electronics Technology Education, Telecommunication Technology
Education, Computer Technology Education and Control Technology Edu-
cation. The curriculum includes elective and compulsory courses, as well as
pedagogical courses.

Laboratories:

The department has the following laboratories:
Electronics Lab.
Logic and microprocessor Lab.
Telecommunication Lab.
Image Systems Lab.
Computer Lab. 1
Computer Lab. 2
Computer Lab. 3
Control Technics Lab.
Pneumatics Lab.
Automatic Control Lab.
Computer Control Systems Lab.
Robotics and PLC Lab.
## UNDERGRADUATE PROGRAM

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<tbody>
<tr>
<td>SCI 101 Mathematics 1</td>
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<tr>
<td>SCI 103 Physics. 1</td>
<td>SCI 104 Physics. 2</td>
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<tr>
<td>SCI 105 Chemistry</td>
<td>ELC 112 Cir. Elem. Measur. 2</td>
</tr>
<tr>
<td>ELC 111 Cir. Elem. Measur. 1</td>
<td>ELC 116 Computer Educ.</td>
</tr>
<tr>
<td>ELC 115 Prof. Drawing</td>
<td>CUL 194 Turkish Lang. 2</td>
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<tr>
<td>CUL 193 Turkish Lang. 1</td>
<td>CUL 196 Atatürk Principles</td>
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<tr>
<td>CUL 195 Atatürk Principles</td>
<td>CUL 198 Foreign Lang. 2</td>
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<td>CUL 197 Foreign Lang. 1</td>
<td>CDC 182 The Princip. of T/V E.</td>
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### Sophomore Year

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<tr>
<td>ELC 201 Prof. Mathematics</td>
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<td>ELC 213 Electric Fields</td>
<td>ELC 278 Elec. Circuits. 2</td>
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<td>ELC 277 Elec. Circuits. 1</td>
<td>ELC 214 Electronics. 1</td>
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<tr>
<td>ELC 217 Comp. Prof. 1</td>
<td>CUL 292 Phy. Ed/Arts. 2</td>
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<td>CUL 298 Foreign Lang. 4</td>
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### For those specializing in Electronics Technology Education

### Junior Year

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<td>ELC 312 Microprocessors. 1</td>
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<tr>
<td>ELC 313 Computer Prog. 2</td>
<td>ELC 322 Electronics. 3</td>
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<tr>
<td>ELC 315 Electronics. 2</td>
<td>ELC 342 Lin. Control Sys.</td>
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<td>ELK 373 Electric Mach.</td>
<td>ELC 324 Power Electron.</td>
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<tr>
<td>EDC 381 Meas. &amp; Eva. Educ.</td>
<td>EDC 382 Micro Teaching</td>
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<td>EDC 383 Educ. Technology</td>
<td>EDC 384 Vocational Guidance</td>
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### Senior Year

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<tr>
<td>ELC 457 Graduation Project</td>
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<tr>
<td>ELC 423 Microprocessors. 2</td>
<td>ELC 422 Ind. Electronics</td>
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<tr>
<td>ELC 350 Telecommunica. 1</td>
<td>ELC 453 Image Sy. 11</td>
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<td>ELC 421 Digital Electron.</td>
<td>EL: C 4YX Elective</td>
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<tr>
<td>EDC 4XX Elective (Teac. E.)</td>
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For those specializing in Telecommunication Technology Education

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<tbody>
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<td>ELC 312 Microprocessors. 1</td>
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<tr>
<td>ELC 313 Computer Prog. 2</td>
<td>ELC 322 Electronics. 3</td>
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<tr>
<td>ELC 315 Electronics. 2</td>
<td>ELC 350 Telecommunica. 1</td>
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<tr>
<td>ELK 373 Electric Mach.</td>
<td>ELC 324 Power Electron.</td>
</tr>
<tr>
<td>EDC 381 Meas. &amp; Eva. Educ.</td>
<td>EDC 382 Micro Teaching</td>
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<td>EDC 383 Educ. technology</td>
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| Senior Year          |
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### Senior Year

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<td>ELC 454 Image Systems. 2</td>
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<td>ELC 455 Telecommunica. 2</td>
<td>ELC 456 Microwave</td>
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<tr>
<td>ELC 459 Anten. &amp; Propag.</td>
<td>ELC 452 Data. Com.</td>
</tr>
<tr>
<td>EDC 4K1 Elective (Teac. E.)</td>
<td>EDC 482 Teaching Pract.</td>
</tr>
</tbody>
</table>

For those specializing in Control Technology Education

### Junior Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>ELC 311 Logic Circuits. 2</td>
<td>ELC 312 Microprocessors. 1</td>
</tr>
<tr>
<td>ELC 313 Computer Prog. 2</td>
<td>ELC 332 Computer Prog. 3</td>
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<tr>
<td>ELC 315 Electronics. 2</td>
<td>ELC 342 Lin. Control Sys.</td>
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<tr>
<td>ELK 373 Electronic Mach.</td>
<td>ELC 344 Control Technics</td>
</tr>
<tr>
<td>EDC 381 Meas. &amp; Eva. Educ.</td>
<td>SCI 304 Num. Analysis</td>
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<tr>
<td>EDC 383 Educ. Technology</td>
<td>EDC 382 Micro Teaching</td>
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| Senior Year          |
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### Senior Year

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<thead>
<tr>
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<tr>
<td>ELC 457 Graduation Project</td>
<td>ELC 458 Graduation Project</td>
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<tr>
<td>ELC 441 Automatic Contr. 1</td>
<td>ELC 442 Automatic Contr. 2</td>
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<td>ELC 443 Comp. Contr. Sys.</td>
<td>ELC 422 Ind. Electronics</td>
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<td>ELC 324 Power Electronics</td>
<td>ELC 446 Robotic</td>
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<td>ELC 334 Micro Controllers</td>
<td>ELC 448 Prog. Log. Control</td>
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For those specializing in Computer Technology Education

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<td>ELC 312</td>
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<td>ELC 336</td>
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<td>EDC 382</td>
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<tr>
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<td>Micro Teaching</td>
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<td>EDC 384</td>
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<td>Vocational Guidance</td>
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<td>ELC 452</td>
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<td>Teaching Pract.</td>
</tr>
</tbody>
</table>

### COURSE DESCRIPTIONS

**ELC 111 Cir. Elem. and Measurement I**: Accuracy and precision, types of errors, galvanometer, DC ammeters, voltmeters, ohmmeter, multimeter, color code of resistance, Ohm's law, voltage divider circuits, applications of DC relay, designing DC voltmeter, Ammeter and ohmmeter.

**ELC 112 Cir. Elem. and Measurement II**: Oscilloscope techniques, electronic and digital multimeters, Q meter, component measuring instruments, inductance in series and parallel, RL and RC circuits, transfer characteristics, and simulation of some experiment circuits with electronic Work bench simulation program.

**ELC 115 Proff. Drawing**: basic technical drawing, lettering and types of lines, views in technical drawing, electronic symbols, schematic of electronic circuit drawing by templatation, introduction to ORCAD design tools. ORCAD library, discrete components library, active components library, and creation of user librarian.

**ELC 116 Computer Education**: The components of a computer system, the CPU, memory, input, output and auxiliary storage devices, the specifications of various computer types, main memory, speed monitor and graphics cards, operating system and DOS, Basic DOS commands, application programs, word processing and spreadsheet.
ELC 213 Electric Fields: Vector Analysis, Colomb's law and electric field intensity, electric flux density, Gauss's law, energy and potential, conductors, dielectrics and capacitance, the steady magnetic field, magnetic forces, materials and inductance, time varying fields and Maxwell's equations.

ELC 217 Computer Programming I: Basic program structure, data types, program control structures, functions and subroutines, graphics, and file organization.

ELC 277 Electric Circuits I: Resistance and ohm's Law, resistive circuits in series and parallel, practical and ideal sources, network theorems, capacitance and transients in RC circuits, introduction to magnetism, inductance and transients in RL circuits.

ELC 214 Electronics I: Intrinsic and doped semiconductors, p and n type semiconductors, the pn junction diodes and diode applications, zener diode-voltage regulator, bipolar junction transistors, the structures of JFET and MOSFET.

ELC 218 Logic Circuits I: Boolean algebra, logic gates, number systems, conversion of number systems, coding and codes, logic functions, minimization of logic functions, Karnaugh maps, Quine Mc-Clusky methods, SOP and POS form, combinational logic design, half adder, full adder, full subtractor, adders/subtractors, comparator, decoders and encoders, code converters multiplexer, demultiplexer, array logic, ROM, EPROM, RAM, DRAM, PLA, PAL.

ELC 278 Electric Circuits II: Sinusoidal alternating waveforms, alternating current and voltages, series and parallel RL, RC, RLC circuits, sources and source conversion, network theorems (AC), power in AC circuits, power factor correction in series and parallel resonant circuits.

ELC 315 Electronics II: Frequency Response, basic concepts, asymptotic response, the low-frequency response of amplifiers due to coupling and bypass capacitances, high frequency response due to shunt capacitances, cut-off frequencies, bandwidth, gain-bandwidth product, frequency response of cascaded stages, bandwidth reduction, selective amplifiers at radio frequencies, characteristics of a tank circuit, differential amplifiers, the basic circuit, the differential and common mode gain, common mode rejection ratio, biasing, practical current source, double stage amplifiers, operational amplifiers, basic characteristics of OP-AMP, and applications of OP-AMPS.

ELC 311 Logic Circuits II: Synchronous sequential machines, a sequence of logic states, design and analysis of flip-flops, registers, and counters. Lab: construction of combinational logic circuits, circuit design with karnaugh maps, binary half and full adder, subtractor, decoder multiplexer, ALU, FF applications, synchronous and asynchronous counter design, and register.

ELK 373 Electric Machines: Magnetic aspects of machines, principles of DC machines, DC generators, DC motors, transformers, induction motors, synchronous generators, and synchronous motors.
ELC 313 Computer Programming II: Pascal program structure, data types, program structures, procedures, functions and recursion, and file organization.

ELC 322 Electronics III: Feedback amplifiers: theory of feedback, effects of feedback on gain, stability, frequency response and impedance levels, types of feedback, practical feedback amplifiers, sine-wave oscillators: Barkhausen criterion, phase-shift, Wien bridge, tuned and crystal oscillators, comparison of different types of oscillators, power amplifiers: classification of amplifiers, consideration of output power, dissipation and efficiency, resistive and transformer loaded class A and B amplifier, push-pull connection, complementary symmetry.

ELC 342 Linear Control Systems: Open-loop and closed-loop control, Laplace transformation, linearization of nonlinear mathematical model, block diagram, deriving transfer function of a physical system, proportional integral and derivative control, the root locus method.

ELC 324 Power Electronics: Thyristors, structure and properties, AC-DC rectifiers, midpoint converters, bridge rectifiers, AC-AC converters, AC rectifiers, AC choppers cyclo converters, DC-AC power sources, DC choppers switched rectifiers, DC-AC inverters, firing circuits, and introduction to thyristors.

ELC 312 Microprocessors I: The architecture of microprocessors, processors, memories, input output circuits, bus structures, instruction sets, assemblers, basic operations, writing and running simple programs, simple input and output, processing data inputs and outputs, memory systems, interfacing technics, and related lab exercises.

ELC 334 Microcontrollers: The architecture of microcomputers and microcontrollers address decoding memory organization, keyboard scanning, design of I/O interface, programmable peripherals, parallel I/O ports, serial communication, 8048 and 8051 family microcontrollers, programming assembly languages, and industrial applications.

ELC 332 Computer Programming III: (C) Program structure, data types, program control structures, functions, and file organization.

ELC 350 Telecommunication I: General telecommunication systems, telecommunication standards (CCITT, BELL, EIA) transmission systems, transmission line and characteristics, the characteristics of voice transmission, modulation, amplitude, frequency and phase modulation, telephone circuits, speech and 2-4 wire conversion hybrid circuit, pulse and DTMF dialing circuits, electromechanic and electronic ringing circuits, ring deduction circuits, protection for telephone line equipments, VDR gas discharge tube, transil, trisil, modem and circuits.

ELC 344 Control Technics: Electrical control components, driving three phase induction motor, driving single phase, direct current and three phase wound induction motors, breaking AC and DC motors, fundamentals of pneumatic controls, the basic
circuits of pneumatic control, drawing of the pneumatic circuits, combination of pneumatic systems, pneumatic-electrical transformers.

ELC 336 Computer Graphics: The principal of computer graphics and interactive graphical methods for problem solving, a survey of graphical hardware and software, two and three dimensional representation, animation techniques, part of laboratory involves use of an interactive microcomputer graphical system.

ELC 459 Radio Wave Propagation and Antennas: Electromagnetic waves in space, antenna definitions, antenna arrays, modes of propagation.

ELK 421 Digital Electronics: Introduction to digital electronics, semiconductor diodes, bipolar junction transistor, bipolar transistor inverter, resistor-transistor logic, diode-transistor logic, transistor-transistor logic, emitter-coupled logic, MDS transistors, MOS gates, flip-flops, semiconductor memories, analog switches, and timing circuits.


ELC 435 Operating System: General concepts and basic terminology, memory management, file systems directory structures, multiuser systems, unix operating.

ELC 433 Desktop Publication: Hardware and software requirements for desktop publication. Using general wordprocessing programs, setting up page boards, tabs, fonts, page size character size, like word perfect, using popular desktop publishing programs, like moonstar and page maker.

ELC 461 Data Processing With Cobol (Elective): Structures of Cobol, designing Cobol algorithms, syntax, data types, arrays and strings, basic file organization techniques, file definition and processing in Cobol.

ELC 431 Database: Database design, creating entry forms, sorting and indexing, command files, decision making, file management.

ELC 350 Telecommunication I: General telecommunication systems, telecommunication standards (CCITT, BELL, EIA) transmission systems, transmission line and characteristics, the characteristics of voice transmission, modulation, amplitude, frequency and phase modulation, telephone circuits, speech and 2-4 wire conversion hybrid circuit, pulse and DTMF dialing circuits, electromechanic and electronic ringing circuits, ring dedection circuits, protection for telephone line equipments, VDR gas discharge tube, transil, trisil, modem and circuits.

ELC 453 Image Systems I: Convert picture to electric signals, TV systems, color TV, teletext, videotext TV and satellite antenna distribution systems.

ELC 443 Comp. Cont. Syst.: The Z transform, pulse transfer function and weighting sequence, impulse sampling, reconstruction original signals from sampled si-
signals, obtaining discrete-time equivalents of continuous time filters, design principles based on a discrete-time equivalent of an analog controller transient and steady-state response analysis, design based on the root locus method, design based on the frequency response method, and state space analysis and design.

**ELC 411 (ELC 461 Elective 1) Microprocessors II:** 16-bit microprocessor architecture, 8086, 80286, 80386 and 68000 family microprocessors, instruction sets, assembly language. Input/output circuits, handshake of input output, interrupts, memory management, interfacing, communication circuits, timing methods, related lab exercises.

**(ELC 461 Elective 1) Cobol Programming:** An introduction to COBOL environment using structured program design techniques, emphasis on a minimal subset of the COBOL programming language syntax used in report generation, control break processing, table processing, and sequential file processing applications.

**ELC 455 Telecommunication II:** Telephone switching exchanges, analog switching exchanges, subscriber line interface circuits, analog switching circuits, traffic concepts, traffic quantit, call intensity, traffic intensity, grade of service and equations, pulse code modulation, sampling quantization, coding and decoding, distortions in PCM systems. Digital switching exchanges, digital switching matrix, digital conference circuits, electronic private automatic branch exchanges, ISDN systems and standards.

**ELK 422 Industrial Electronics I:** Digital sensing physical parameters, AC DC motor drivers, and speed control, timer position control by DC and stepper motors PWM Techniques in electronic equiments, basic transducers and applications, servo motors and applications.

**ELC 464 Microwave:** Theory and applications of transmission lines, wave characteristics on an infinite line, line parameters, characteristic impedance, transmission lines as circuit elements, reflection from the load, reflection coefficient, lossless lines, quarter-wave transformer, standing waves, voltage standing wave ratio (VSWR), stubs-single and double-stab-matching, load impedance on a loss-less line transmission, line impedance matching, wave equation for a lossless transmission line, passive microwave devices, wave guides.

**ELC 442 Automatic Control II:** Design and compensation techniques, summary of control system compensation methods, lioulov stability analysis, optimal and adaptive control systems, analysis of ward-Leonard speed control, speed and position control with DC, servo motor, process control simulation, control of DC, machine and induction motor, induction and programme of robot arm.

**ELC 446 Robotics:** Robot definition, velocity and acceleration, inverse kinematic equations, joints and manipulators, drive methods, sensors, control and control methods, computer hardware for robot systems, interfacing, robot software robotic vision, robot programming languages.
ELC 434 Computer Systems: Organization of a typical computer, microcomputer hardware design, personal computer systems, memory management, I/O map, XT bus, AT bus interfacing, CRT displays systems.

ELC 452 Data Communication: Point to point synchronous, asynchronous communication, physical connections, level conversion, information encoding, communication standards, RS232C, RS449, RS422, RS423, modem communication programs and techniques, multiplexing. LAN repeaters, bridges and gateways, X25 networks and TURPAK.

ELC 453 Image Systems I: Convert picture to electric signals, TV systems, Color TV, teletext, videotext TV and satellite antenna distribution systems.

ELC 454 Image Systems II: Video recording equipments, cameras, monitors, closed loop TV systems, high definition TV video recording equipments experiments.

ELC 436 Computer Aided Education: Introduction to the real time simulation for education, a review of CAD-CAM software, utilization of multimedia system and hardware installation, application of presentation and animation software.

ELC 448 Programmable Logic Controllers: Programmable logic controllers (PLC) system configuration, PLC I/O specifications, ladder diagram programming, mnemonics programming, PC-PLC link interface, advanced computing instructions, external display and preset functions, ADC and DAC applications, monitoring operation.

ELC 462 Elective 2) Computer Network System: Local area network, ISO/OSI network architecture, IEEE 802 standards, LAN interface hardware, LANsmart operating system, Novell operating applications, hardware installations and maintenances.

ELC 462 Elective 2) Computer Center Management: An overview of information processing center management, physical environment, organization structure, computer system acquisition and procurement, introduction of computer services to the organization, security.
DEPARTMENT OF MECHANICAL TECHNOLOGY EDUCATION

Head of Department: Prof. Dr. Yüksel ÇAVUŞOĞLU

Professors: Fadullah CERRAHÖĞLU, Mete DOĞRUE, Osman YAZICIOĞLU, Metin YEREBAKAN, Yüksel ÇAVUŞOĞLU

Associate Professors: Osman ISIKAN, Muhittin ŞİMŞEK
Assistant: Hasan APAYDIN, İsmail BİNİCİ, H. Tahsin KALAYCI, Mustafa KURT, Nihat ÖZMEN

Instructors: Bülent EREN, Oğuz GİRİK, Dr. Ferhat GÜNGÖR, Mustafa GÜRLER, Ramazan KÖSE, Habib KUÇUK, Nail ÖZÇİLİNGİR, Cemil SAK, Hamdi SÖZÖZ, İ. Zeki ŞEN, Sayım UZUNER, O. Nuri KARAHAN, İbrahim KALELİ, Ayşe ERKAN, Bilge BAYDAN, Cemil ÖZTÜRK

Language of Instruction: Turkish

Mechanical department provides technical teachers for vocational schools and technical high school and qualified people for industry.

Department of Mechanical Technology Education has five sections, four of them lead to Bachelor degrees. There are also four laboratories and four workshops.

These are: automotive, chip removal, construction (design), energy, manufacture plant and control, mechanical and machine elements.

MAIN FIELD OF STUDIES

1 – Sections of Automotive Technology Education
2 – Sections of Chip Removal Technology Education
3 – Sections of Construction and Technology Design Education
4 – Sections of Energy Technology Education
5 – Sections of Production Planning and Control Technology Education
WORKSHOPS AND LABORATORIES

1 – Grinding Workshop
2 – Turning Workshop
3 – Milling Workshop
4 – Dieing Workshop
5 – Basic Processes Workshop
6 – Construction Laboratories
7 – CAD/CAM Laboratories
8 – Automotive Laboratories
9 – Energy Laboratories

UNDERGRADUATE PROGRAM IN CONSTRUCTION AND DESIGN EDUCATION

Freshman Year

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<tr>
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<td>KÜL 194 Turkish II</td>
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<tr>
<td>KÜL 195 Atatürk Principles</td>
<td>KÜL 194 Atatürk Principles</td>
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<td>KÜL 197 Foreign Language I</td>
<td>EGİT 182 The Principles of Technical and Vocational Educ.</td>
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<td>FEN 102 Mathematics II</td>
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<td>FEN 103 Physics I</td>
<td>FEN 104 Physics II</td>
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<td>ELK 116 Computer Education</td>
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<td>MAK 115 Technical Drawing</td>
<td>MAK 116 Professional Drawing</td>
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<tr>
<td>MET 211 Materials Science I</td>
<td>MET 212 Materials Science II</td>
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<td>MAK 114 Basic Processes Techniques</td>
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Sophomore Year

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<td>MAK 212 Dynamics</td>
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<td>MAK 244 Mechanical Drawing II</td>
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<td>FEN 205 Numerical Analysis</td>
<td>MAK 214 Strength of Materials</td>
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<td>MAK 242 Computer Aided Design (CAD) I Elective I</td>
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<td>EGİT 281 Individual and Learning Process</td>
<td>EGİT 282 Job Analysis and Program Development</td>
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<td>EGİT 283 Student and Group Processes</td>
<td>EGİT 284 Teaching Methods</td>
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Junior Year

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<td>MAK 341</td>
<td>Machine Design I</td>
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<td>Mechanical Systems Design I</td>
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<td>Dynamics of Machinery</td>
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<td>MAK 319</td>
<td>Thermodynamics and Heat Transfer</td>
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<td>Measurement and Evaluation in Education</td>
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Second Semester

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<td>MAK 344</td>
<td>Mechanical Systems Design II</td>
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<td>Mechanism Technique</td>
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<td>Micro-Teaching</td>
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Senior Year

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<td>MAK 421</td>
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<td>MAK 427</td>
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<td>MAK 424</td>
<td>Die Technique I</td>
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<td>MAK</td>
<td>Production Planning</td>
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Second Semester

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<td>MAK 422</td>
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<td>MAK 425</td>
<td>Die Technique II</td>
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<td>Graduate Project</td>
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<td>EĞT 482</td>
<td>Teaching Practice</td>
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UNDERGRADUATE PROGRAM IN ENERGY

Freshman Year

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<tr>
<td>KÜL 193</td>
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<tr>
<td>KÜL 195</td>
<td>Atatürk Principles</td>
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<tr>
<td>KÜL 197</td>
<td>Foreign Language I</td>
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<td>FEN 101</td>
<td>Mathematics I</td>
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<td>FEN 103</td>
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<td>FEN 105</td>
<td>Chemistry</td>
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<td>MAK 115</td>
<td>Technical Drawing</td>
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<td>MAK 113</td>
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<td>Foreign Language II</td>
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<td>MAK 227 Industrial Metrology</td>
<td>ELK 274 Basic Electronics I</td>
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<td>MAK 231 Sanitary Installations I Design (CAD) I Electives</td>
<td>MAK 242 Computer Aided Design (CAD) III</td>
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### Junior Year

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<thead>
<tr>
<th>First Semester</th>
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<tbody>
<tr>
<td>EĞT 381 Measurement and Evaluation in Educ.</td>
<td>EĞT 392 Micro-Teaching</td>
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<tr>
<td>EĞT 383 Educational Technology</td>
<td>EĞT 384 Vocational Guidance</td>
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<tr>
<td>MAK 333 Heating Techniques</td>
<td>MAK 338 Burning Technique</td>
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<tr>
<td>MAK 313 Thermodynamics I Design I</td>
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<td>MAK 331 Heat Transfer</td>
<td>MAK 330 Automatic Control</td>
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<td>MAK 311 Machine Elements I</td>
<td>MAK 316 Fluid Mechanics</td>
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<td>MAK 337 Boilers and Burnes</td>
<td>MAK 332 Air Conditioning</td>
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<td>MAK 336 Heating Project</td>
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### Senior Year

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<tbody>
<tr>
<td>MAK 437 Graduation Project</td>
<td>MAK 458 Graduation Project</td>
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<tr>
<td>EDUC 481 Teaching Education Electives</td>
<td>EDUC 482 Teaching Practice</td>
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<td>MAK 411 Hydraulic</td>
<td>MAK 412 Hydraulics and Pneumatic</td>
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<td>MAK 431 Heat Exchangers</td>
<td>MAK 430 Environmental Protection</td>
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<td>MAK 433 Pumps</td>
<td>MAK 357 Alternative Power Sources</td>
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<td>MAK 435 Air Conditioning Project</td>
<td>MAK 434 Solar Energy</td>
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<td>MAK 437 Refrigerating Systems</td>
<td>MAK 436 Thermal Power Plants</td>
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<td>MAK 439 Refrigerating Systems Techniques Elective</td>
<td>MAK 438 Hydraulic Power Plants Elective</td>
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<td>EĞT 481 Elective Course in Education</td>
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UNDERGRADUATE PROGRAM IN CHIP REMOVAL

Freshman Year

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Sophomore Year

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<td>EĞT 281</td>
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<td>Individual and Learning Process</td>
<td>Job Analysis and Program Development</td>
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<td>EĞT 284</td>
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<td>Student and Group Processes</td>
<td>Workshop/Vocational Teaching Methods</td>
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<td>Strength of Materials</td>
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<td>MAK 225</td>
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<td>Chip Removal Tec. I</td>
<td>Die Production Tech. II</td>
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<td>FEN 205</td>
<td>MAK 226</td>
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<td>Chip Removal Tech. II</td>
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### Junior Year

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<td>EĞT 381</td>
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<td>MAK 319</td>
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<td>Thermodynamics and Heat Transfer</td>
<td>Computer Aided Manufacturing (CAM)</td>
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<td>Fluid Mechanics I</td>
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<td>MAK 346</td>
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### Senior Year

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<tr>
<td>MAK 457</td>
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<td>MAK 424</td>
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<td>Hydraulic</td>
<td>Hoisting and Conveying Machinery</td>
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### Undergraduate Program in Automotive

#### Freshman Year

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<td>Basic Processes Techniques I</td>
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Sophomore Year

First Semester

EGT 281 Individual and Learning Process
EGT 283 Student and Group Process
MAK 211 Statics
MAK 275 Auto Elec. and. Electronics
MAK 241 Computer Design CAD I
FEN 205 Numerical Analysis
ELK 271 Basic Electronics.

Second Semester

EGT 182 Job Analysis and Programme Development
EGT 284 Workshop/Vocational Teaching methods
MAK 242 Computer Aided Design (CAD) II
MAK 212 Dynamics
MAK 214 Strength of Materials
MAK 252 Motor Vehicles Alignment
MAK 254 Chassis and Power Transmission Systems

Junior Year

First Semester

EGT 381 Measurement and Evaluation in Educ.
EGT 383 Educational Technology
MAK 313 Thermodynamics Ix
MAK 311 Machine Elements I
MAK 315 Mechanism Technique
MAK 331 Heat Transfer
MAK 357 Alternative Power Sources

Second Semester

EGT 382 Micro-Teaching
EGT 384 Vocational Guidance
MAK 312 Machine Elements II
MAK 314 Thermodynamics II
MAK 316 Fluid Mechanics
MAK 352 Mechanics of Motor Vehicles
MAK 317 Dynamic of Machinery
MAK 355 Fuel Carburation and Injection Technology

Senior Year

First Semester

MAK 457 Graduation Project
MAK 411 Hydraulic
MAK 451 Auto Servicing
MAK 453 Engine Dynamics
MAK 455 Elective Fuels and Combustion Elective
EGT 481 Elective Course in Education

Second Semester

MAK 458 Graduation Project
MAK 448 Hydraulics and Pneumatic
MAK 352 Engine Testing Techniques
MAK 454 Emission and Control
MAK 456 Motor Vehicles Alignment Technique
MAK 458 Gas Turbines
MAK 450 Work Machines Elective
EGT 482 Teaching Practice
COURSE DESCRIPTIONS

MAK 113-114 Basic Processes Techniques I - II: The machine shop is equipped with necessary machines and tools to serve for the various purposes. The students work on various projects during this period using the available facilities including turning, milling, shaping, drilling, welding machines and hand tools such as dies, files, saws, marking tools. Surface and cylindrical milling and turning is also taught in those machine shop.


MAK 224 - 225 Die Technique I - II: Description of die techniques. Die varicyl, die elements, punches, dreg, die-holders, quide pins, feeding and production of dies.


MAK 234 Sanitary Installations Project: A complete design and drawing of the cold and domestic hot water, waste system of a building.

MAK 241 Computer Aided design (CAD) I: System structure, selecting entities, indicating position, geometric modelling; construction parameters (const, cords), entity creation (arc autoseg, circle, conic fillet, line, point, polygon, polyline, spline), entity editing (breach, section, trim/exit), entity manipulation, X-From-move/copy/join-c-array, delta, hix-rot, mirror, old-new, dimens, label, note, set, update, x-hatch). Display manipulation (axes, cunor, grd/snap levels, pan, redraw, view, wvorts, zoom) Entity management (attrib, BX move, delete group, recall). Geometric analysis (verify, moment, perim) entity verification (verify, attrib, coord, disk, posting), file management (coal files, macros, part files, pattern files, plot files), plot print.

MAK 242 Computer Aided Design: Introduction to CAD/CAM, the product cycle and CAD/CAM, automation and CAD/CAM, computer technology, minicomputers, microcomputers, and programmable controllers, fundamentals of CAD, (the design process, the application of computers for design, creating manufacturing data base benefit of computer-aided design, some examples.) Hardware in computer-aided design (the design work station the graphics terminal operator input devices, the central processing unit, secondary storage. Computer graphics software and data base.

MAK 252 Motor Vehicles Alignment: Principles of steering geometry: castor, camber, king-ping inclination, etc. Twin-steer, self-steer and 4-wheel steered axles. Steering assemblies and components. Integral and ram-type power assisted steering systems and associated components.

MAK 254 Chassis and Power Transmission Systems: Theoretical and practical work on: Chassis, layouts and construction (layouts of light, heavy and passenger vehicles, disposition of the engine and transmission systems, layout of integrally constructed vehicles, etc.), gearboxes, fluid couplings, automatic gearbox.

MAK 275 Auto Electric and Electronics: Theoretical and practical work on: Ignition systems, starter motor systems, generation of electrical energy, vehicle lighting systems, auxiliary equipment (windscreen wipers and washers, fan heater motors, etc.), sensors and actuators, instrumentation systems, engine management systems, other electronic applications. (Vehicle speed control, anti-skid brake systems, etc.)


MAK 315 Mechanism Technique: Degree of freedom of space, of kinematic element: Constrained, unconstrained mechanisms; classification of mechanism and type synthesis. Kinematic analysis; motion, velocity and acceleration analysis using graphical and analytical methods. Linear mechanical systems, simple mechanisms. Synthesis and analysis of cam mechanisms.


MAK 317 Dynamics of Machinery: Static force and moment analysis, analytical and graphical methods, superposition principle typical members: two-force, thre- force, multi-force members. Dry friction analysis; friction circle, graphical.


MAK 330 Automatic Control: Introduction to control systems. Transfer functions. Block diagrams. Basic control types. Transient and steady state response characte-


MAK 334 Air Conditioning Techniques: Theoretical and practical work on Summer and winter air conditioning, load calculations, air conveying and distribution; fan, duct design and diffusing apparatus for producing comfort in summer. All year air conditioning methods and equipment, automatic control for air conditioning systems. Selection of all units and writing specifications for all equipments for the design work.


Quality controloconomy, system and techniques. Industrial safety rules and regulations.


**MAK 343 Mechanical Systems Design:** Describe the factors influencing the choice of material in a component or assembly. The basic manufacturing process for components with regard to cost and production problems. Ergonomic factors involved in design. The safety aspects of design. The factors to be considered in the evaluation of design.

**MAK 344 Mechanical Systems Design II:** Design organization, design for economic manufacture. The reasons for tolerances. Application of geometrical tolerances to given components. Evaluation of a range of existing designs in terms of function analysis, value engineering, safety and reliability.

**MAK 352 Mechanics of Motor Vehicles:** Mechanical mobility, mobility testing and instrumentation, derivation of dynamic system parameters, Lagrange equations, analog computer. Vehicle handling: Tyre characteristics, over-under-neutral steering, forces acting on steering systems, steering systems vibrations. Vehicle ride: Tyre dynamics, suspension dynamics, body dynamic response, road surface roughness, total vehicle models, human response to vibrations. Vehicle internal and external noise. Articulated vehicle dynamics. Dynamics of singletrack vehicles. Railway vehicle dynamics.


**MAK 357 Alternative Power Sources:** Gas turbine engines applied to the motor vehicle (Technical and economic features, operating efficiency, etc.). Rotary engines applied to the motor vehicle (ignition system, specific tests, etc.). Stirling engine.

**MAK Production Planning:** Structure of production planning in manufacturing systems. Product and process selection. Demand and sales forecasts. Aggregate planning. Materials requirements planning, sequencing and scheduling. Economic lot size. Inventory control.

**MAK 382 Computer-Aided Manufacturing:** Numerical control, the beginnings of CAM (conventional numerical control, NC part programming, computer controls in
NC); industrial robots; (robot technology, robot applications); group technology and processes planning; (group technology, computer-aided processes planning); computer-integrated production management systems; (production planning and control, inventory management and MRP, shop floor control and computer processes monitoring); computer processes control, computer-aided quality control, computer-integrated manufacturing; CAD/CAM implementation and the future of CAD/CAM.


MAK 433 Pumps: Energy and momentum relations through a pump. Dimensional analysis and similarity. Limitations in design. Design aspects of axial, radial and mixed flow pumps. Performance characteristics.


MAK 435 Air Conditioning Project: A complete design and drawing of the air conditioning system of a building.


**MAK 438 Hydraulic Power Plants:** Types and main uses of energy sources. Types and main elements of hydraulic power plants. Cost of energy; definition, calculation and comparison. Investigation and planning of energy market. Planning of hydraulic power plant: Types of construction, selection of turbine and other elements. Electrical elements of hydraulic power plants.

**MAK 448 Hydraulics and Pneumatic:** Understands elementary concepts in hydraulics and pneumatic. Such as the units of pressure in general use and their relationship. The layout of a simple open-circuit hydraulic circuit showing the basic elements and also the layout of pneumatic. The properties of a hydraulic fluid. Viscosity, lubricity, chemical stability for hydraulics. Air line filters in pneumatic circuits.

**MAK 451 Auto Servicing:** Servicing, adjustment and checking of: engines fitted to light and heavy goods vehicles; engine pressure charging systems; engine management and petrol fuel systems; compression-ignition fuel systems, clutch assemblies, manual gearboxes, transmission system torque converters and automatic gearboxes, braking systems, transmission retarders and exhaust brakes, suspension linkage systems, steering systems, vehicle electronics, starter motors electrical systems, etc.; repair by replacement or modification.

**MAK 452 Engine Testing Techniques:** Theoretical and practical work on specialist measuring equipment (spectrum analyzers, logic analyzers, programmable instruments, etc.); data acquisition; processing and display to interpret test results; test procedures to determine the performance of an engine; fault diagnosis concepts and skills; diagnostic assignment.

**MAK 453 Engine Dynamics:** Static force and moment analysis; analytical and graphical methods, superposition principle typical members. Dry (Coulomb's) friction analysis; friction angle, friction circle, graphical methods. Dynamic analysis; dynamics of rigid bodies, center of percussion, shaking forces and moments. Static and dynamic analysis using energy methods; virtual work, influence coefficients. Vibration analysis; critical speeds and resonance, vibration isolation and absorption. Balancing; static and dynamic balancing, balancing machines. Dynamics and balancing of reciprocating engines; in-line engines, V engines. Flywheel selection. Dynamic analysis of CAM mechanisms.

**MAK 454 Emission and Control:** Introduction to air pollution. Air pollution sources and types of pollutants. Combustion generated air pollution. Continuous combustion systems. PM/SOx/HC/CO/NOx emissions and their control in continuous combustion systems. Exhaust emissions from mobile sources. Emissions from SI and CI engines. Regulations on emissions.

**MAK 455 Fuels and Combustion:** Space of combustion. Stoichiometry of combustion. Air-fuel mixtures. Closed formula of fuels; solid, liquid and gaseous fuels. Physical and chemical properties and characteristics of fuels. Types of combustion

**MAK 456 Vehicle Testing Techniques:** Theoretical and practical work on diagnostic techniques, manual and computer based maintenance records, environmental factors, principles of fault location, diagnostic performance.

DEPARTMENT OF METALS TECHNOLOGY EDUCATION

Head of Department : Prof. Dr. Mehmet KOZ

Professor : İrfan YÜKLER
Assistant Professors : Ali Arslan KAYA, Kayhan YALÇI, Zarif ÇATALGÖL, Ersin EROL
Instructors : Osman ALTINÇEKİÇ, Demirşah ÇALIŞKAN, Hüseyin KURT, Serdar SALMAN, Şükrü YİĞİT, İrfan ÇALIŞ, Halim ATEŞ, Ramazan SAMUR

Language of Instruction: Turkish

Metals Technology Department has three main sections; welding, mechanical metallurgy and materials science. The department has both laboratories and workshops. They are:

1 – Mechanical Testing Laboratory
2 – Metallography Laboratory
3 – Non-destructive Metal Testing Laboratory
4 – Heat Treatment Laboratory
5 – Welding Workshop
6 – Sheet Metal Forming Workshop
# UNDERGRADUATE PROGRAM

## Freshman Year

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## Sophomore Year

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<td>MAK 274 Strength of Materials</td>
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Junior Year

First Semester
EDUC 381 Measurement and Evaluation Education
EDUC 383 Educational Technology
MET 311 Heat Treatment of Metals
MET 313 Mechanical Testing of Materials I
MAK 317 Machine Elements
MET 315 Production Techniques I
MET 317 Die Design I
MET 3KA Non-Metallic Eng. Materials
MET 3KB Principles of Metal Casting

Second Semester
CUL 398 Foreign Language VI
EDUC 382 Micro-Teaching
EDUC 384 Vocational Guidance
MET 312 Alloys
MET 314 NDT of Materials
MET 310 Welding Metallurgy
MET 316 Production Techniques II
MET 318 Die design II
EDUC 386 Workshop Education
MET 3YA Composite Materials
MET 3YB Foundry Technology

Senior Year

First Semester
MET 457 Graduation Project
EDC 481 Elective Course
MET 411 Corrosion
MET 413 Welding Design
MET 415 Metallurgical Thermodynamics
Elective
MET 4KC Hydraulic and Pneumatic Transport
MET 4KD Ceramics

Second Semester
MET 458 Graduation Project
EDC 482 Teaching Practice
MET 412 Surface Protection Methods
MET 414 Quality Control
MET 416 Work Analysis
ELC 471 Basic Electrics
Elective
Elective
MET 4YA Ceramic Coatings
MET 4YB CAD

COURSE DESCRIPTIONS


MET 211 Materials Science I: Types of materials, selection of materials, structures of materials, atomic bonds and atomic arrangements, crystal structures, crystal
defects, atomic diffusion. Phase diagrams and phase transformations, Iron-Fe₃C phase diagram, iron and steel production, steel standards, types of steels, cast irons.

MET 212 Materials Science II: Low alloy and alloy steels, special steels, diffusion, optical and magnetic properties of materials.


MET 215 - 216 Plastic Deformation Techniques I-II: Forging, rolling, milling, bending, extrusion, deep drawing wire and pipe production techniques and applications.


MET 220 Metallography: Specimen cutting and preparation, optical microscopy, hot-stage optical microscopy, carbon steels, various microstructure of different materials, etchants.


MET 311 Heat Treatment of Metals: Heat treatment furnaces, austenitization, TTT-diagrams, pearlitic transformations, martensitic transformations, bainitic transformations, tempering, surface hardening treatments, precipitation hardening, recrystallization.


MET 313 Mechanical Testing of Materials: Mechanical behaviour of materials, tensile and compression tests, hardness tests, Charpy impact test and determination of transition temperature, Erichsen cupping test, creep and fatigue tests.

MET 314 Non-Destructive Testing of Materials: Inspection of materials by x-rays, ultrasonography, penetrant dye technique, magnetic and electrical techniques. Thickness measurement.

MET 315 - 316 Production Techniques I-II: Production of bodies from sheets and plates; laboratory equipment, metal furniture, metal ladder, doors, windows, chairs, desks, metal cupboards.

MET 318 Die Design II: Forging dies, wire drawing dies and extrusion dies of metals, plastics extrusion and injection dies.


MET 3KB Principles of Metal Casting: Model, design of mold and materials, metal mold casting. Die casting. Precision casting, centrifugal casting. Continuous casting.


MET 411 Corrosion: Economic significance of corrosion, types, principles of corrosion and protection, metallurgical factors affecting corrosion, overvoltage concept, passivation, Evans diagrams, inhibitors, anodic and cathodic protection.

MET 412 Surface Protection Methods: Metallic, organic and inorganic coatings, applications of copper, nickel, chrom, zinc and cadmium coatings, quality control in coated materials.


MET 415 Metallurgical Thermodynamics: Law of thermodynamics, Gibbs free energy, enthalpy, entropy, activation energy and application on metallurgical processes. Criterion of equilibriums transformation of phases, thermodynamic investigation of solutions.

MET 4KD Ceramics: Description of ceramic materials, conventional and technical ceramics, Fabrication methods of ceramic materials, tests related with plasticity, drying and firing characteristics. Refractories: Acidic, basic and neutral types. Glass, enamel.

MET 4AY Ceramics Coatings: Classification of surface coatings, ceramic coating materials, prodmetion of ceramic coating materials, physical, chemical and mechanical properties of ceramic coatings, applications of ceramic coatings.

MET 4YB CAD: System structure, selecting entities, geometric modelling, detail drafting, display manipulation, entity manipulation, entity management, geometric analysis, entity verification, file management.
DEPARTMENT OF PRINTING
EDUCATION

Head of Department: Assist. Prof. Dr. Mehmet OKTAV
Instructors: Dr. Çetin ERDEN, Dr. Hayri ÜNAL, Hüseyin N. BEYTUT,
Cem ÖZAKHUN, Timur SOYSAL

Language of Instruction: Turkish

The Department of Printing Education offers a complete array of programs based on the concepts needed in education for technical high schools and all printing industry jobs.

The basic aim of this program is to develop technical teachers for technical high schools, but the students, graduated from the printing school, can work for the printing industry as technical managers.

The printing education program is based on a solid foundation in education and technical areas that are important for the printing industry. This program consists of three main branches; Printing technology education, Electronic Composition systems technology education and Reproduction technology education. First and second years of printing courses cover the general concepts of the whole printing process. These are supplemented by mathematics, chemistry, physics and elective art courses. At the beginning of the third year the students select one of those main branches. During this four year program all courses are supplemented by teaching techniques and psychological courses for developing teaching abilities of the students.

Laboratories:

The department has the following laboratories:

Printing laboratory
Reproduction laboratory
Desk top publishing laboratory
# UNDERGRADUATE PROGRAM

## Freshman Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tr>
<td>KÜL 193</td>
<td>KÜL 194</td>
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<tr>
<td>Turkish Lang. 1</td>
<td>Turkish Lang. 2</td>
</tr>
<tr>
<td>KÜL 195</td>
<td>KÜL 198</td>
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<tr>
<td>Atatürk Principles</td>
<td>Foreign Lang. 2</td>
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<tr>
<td>KÜL 197</td>
<td>KÜL 196</td>
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<td>Atatürk Principles</td>
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<td>FEN 102</td>
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<td>Mathematics 2</td>
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<tr>
<td>FEN 103</td>
<td>FEN 104</td>
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<tr>
<td>Physics 1</td>
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<td>MAK 115</td>
<td>EĞT 182</td>
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<td>Prof. Drawing</td>
<td>Princip. of T/V E</td>
</tr>
<tr>
<td>MAT 113</td>
<td>MAT 116</td>
</tr>
<tr>
<td>Printing Processes Concepts</td>
<td>Printing Press Systems</td>
</tr>
<tr>
<td>MAT 111</td>
<td>MAT 114</td>
</tr>
<tr>
<td>Type and Typographic Fundamentals</td>
<td>Knowledge of Printing</td>
</tr>
<tr>
<td>MAT 115</td>
<td>MAT 112</td>
</tr>
<tr>
<td>Printing Terms</td>
<td>Design</td>
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## Sophomore Year

<table>
<thead>
<tr>
<th>First Semester</th>
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<tbody>
<tr>
<td>KÜL 291</td>
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<td>Phy. Ed./Arts. 2</td>
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<tr>
<td>KÜL 297</td>
<td>KÜL 298</td>
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<td>Foreign Language 4</td>
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<td>MAT 211</td>
<td>MAT 212</td>
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<tr>
<td>Photography I</td>
<td>Photography II</td>
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<tr>
<td>MAT 213</td>
<td>MAT 214</td>
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<tr>
<td>Introduction to Type - Setting Systems</td>
<td>The Evolution of Printing</td>
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<tr>
<td>MAT 215</td>
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<tr>
<td>Reproduction Fundamentals</td>
<td>Electronic Composition</td>
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<td>MAT 217</td>
<td>MAT 210</td>
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<td>Printing Press Systems Fundamentals</td>
<td>Litographic Printing Process</td>
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<tr>
<td>EĞT 281</td>
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<tr>
<td>The Stu. &amp; Gr. Proc.</td>
<td>Teaching Methodology</td>
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</table>
### For those specializing in Printing Technology Education

#### Junior Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>KÜL 397: Foreign Language V</td>
<td>EĞT 382: Micro Teaching</td>
</tr>
<tr>
<td>EĞT 383: Educational Technology Educational</td>
<td>MAT 312: Carton Package Design</td>
</tr>
<tr>
<td>MAT 311: Book Binding</td>
<td>MAT 318: Colour</td>
</tr>
<tr>
<td>MAT 313: Screen Printing Process</td>
<td>MAT 316: Printing Production Organisation</td>
</tr>
<tr>
<td>MAT 321: Advanced Printing Press Techniques I</td>
<td>MAT 314: Quality Control in Graphic Arts</td>
</tr>
<tr>
<td>MAT 323: Film Assembly Techniques</td>
<td>MAT 322: Advanced Printing Press Techniques II</td>
</tr>
<tr>
<td>MAT 325: Printing Plate Technology</td>
<td>MAT 324: Financial Controls in Printing Press</td>
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<tr>
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<td>MAT 326: Relief Printing Systems</td>
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#### Senior Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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</thead>
<tbody>
<tr>
<td>KÜL 481: Elective Course</td>
<td>EĞT 482: Teaching Practice</td>
</tr>
<tr>
<td>MAT 423: Gravure Process</td>
<td>MAT 414: Business Administration of Printing</td>
</tr>
<tr>
<td>MAT 457: Graduation Project</td>
<td>MAT 458: Graduation Project</td>
</tr>
<tr>
<td>MAK 451: Computer Aided Design 1</td>
<td>MAK 452: Computer Aided Design 2</td>
</tr>
<tr>
<td>YÖN 401: Industrial Organisation</td>
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</table>
For those specializing in Reproduction Technology Education

Junior Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>KÜL 397 Foreign Language V</td>
<td>EĞT 382 Micro Teaching</td>
</tr>
<tr>
<td>EĞT 381 Measurement and evaluation</td>
<td>EĞT 384 Professional Testing</td>
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<td>in education</td>
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<tr>
<td>EĞT 383 Technology of Education</td>
<td>MAT 312 Carton Package Design</td>
</tr>
<tr>
<td>MAT 311 Book Binding</td>
<td>MAT 314 Quality Control in Graphic Arts</td>
</tr>
<tr>
<td>MAT 313 Screen Printing Process</td>
<td>MAT 316 Printing Production Organisation</td>
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<tr>
<td>MAT 341 Advanced Reproduction Process I</td>
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<tr>
<td>MAT 343 Reproduction Chemistry</td>
<td>MAT 318 Color</td>
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<tr>
<td>MAT 345 Sensitometry</td>
<td>MAT 342 Advanced Reproduction Process II</td>
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<td>MAT 344 Financial Controls in Reproduction Process</td>
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<td>MAT 346 Color and Tone Control in Reproduction</td>
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Senior Year

<table>
<thead>
<tr>
<th>First Semester</th>
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<tbody>
<tr>
<td>EĞT 481 Elective (Teach. E.)</td>
<td>EĞT 482 Teaching Practice</td>
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<tr>
<td>MAT 441 Advanced Reproduction Process III</td>
<td>MAT 412 Printing Estimating</td>
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<tr>
<td>MAT 443 The Specifications of</td>
<td>MAT 414 Business Administration of</td>
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<tr>
<td>Reproduction Machinery</td>
<td>Printing</td>
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<td>MAT 445 Techniques of Image Assembly</td>
<td>MAT 442 Advanced Reproduction Process IV</td>
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<td>MAT 457 Graduation Project</td>
<td>MAT 458 Graduation Project</td>
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<tr>
<td>MAK 451 Computer Aided Design 1</td>
<td>MAK 452 Computer Aided design 2</td>
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<td>YÖN 401 Industrial Organisation</td>
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# For those specializing in Electronic Composition Systems

## Technology Education

### Junior Year

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<tr>
<th>First Semester</th>
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<tr>
<td>KÜL 397</td>
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<td>EĞT 381</td>
<td>EĞT 384</td>
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<td>EĞT 383</td>
<td>MAT 312</td>
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<td>MAT 311</td>
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<td>MAT 313</td>
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### Senior Year

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<tr>
<td>EĞT 481</td>
<td>EĞT 482</td>
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<tr>
<td>MAT 431</td>
<td>MAT 412</td>
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<td>MAT 433</td>
<td>MAT 414</td>
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<td>MAT 435</td>
<td>MAT 432</td>
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<tr>
<td>MAT 457</td>
<td>MAT 458</td>
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<tr>
<td>MAK 451</td>
<td>MAK 452</td>
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<tr>
<td>YÖN 401</td>
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</table>

## COURSE DESCRIPTIONS

**MAT 111 Type and Typographic Fundamentals:** Introduction to the basic type faces anatomy and historical development, identification and classification. In this course typographical fundamentals are taught. This course allows students to create and solve typographical problems of their own choices.

**MAT 112 Design:** An introduction to the principles of printing design. This course allows students to create their own designs by using colours, greys and typographi-
cal elements. The aim of this course is to develop a view as a graphic designer to
the students.

MAT 113 Printing Processes Concepts: This required course is designed to give
students an overall view of basic concepts and scientific principles which are com-
mon to both printing processes and press systems.
It includes general acknowledgements about type setting systems, reproduction and
printing systems. Basic knowledge of colour is also included.

MAT 114 Knowledge of Printing Materials: The definition of paper and card-
board, production, classification and standards of paper sizes. The scientific specifi-
cations of different types of papers and card board.
A basic understanding of the many different kinds of ink and substrates utilized by
the various printing processes. Substrate composition runability, printability, and
end-use requirements are covered, as well as the different formulations of inks and
their drying systems.
The kinds of reproduction films, photographic type setting materials and the areas
that they are used and their developments.

MAT 115 Printing Terms: A short overall view of printing processes of design to
the printing production. Printing terms which are used in the lecture are explained
and discussed. Also, slangs which are used in the Printing market and the sector
are discussed in this course.

MAT 116 Printing Press Systems: A course designed to explain the principles of
the printing press systems such as letter press, lithography, gravure, screen printing
and flexography and to represent the differences between them. Class lectures, de-
monstrations in printing houses.

MAT 210 Lithographic Printing Process: Technical specifications of originals for
offset systems. An analytical study of the technological development in offset. Em-
phasis on the interrelationship of procedures, materials and equipment. Practical la-
boratory projects on small offset machines and commercial sheet-fed offset ma-
chine.

MAT 221 Photography I: The evaluation of photography, introduction to optical
elements in photography, exposing techniques, technical specifications of lenses
and tools in photography.

MAT 223 Introduction to Type - Setting Systems: Basic knowledge of letter
types, the evaluation of type-setting machines measuring units in type-setting sys-
tems. An introduction to the electronic type setting systems and desk top publish-
ing systems.

MAT 214 History of Printing: Technical evaluation of all printing branches, type-
setting, press and reproduction. The evolution of paper, type faces and printing
plates.
MAT 215 Reproduction Fundamentals: Comprehension and examining of terms such as reproduction, photography, development, camera, film, exposing, opaques, transparencents, line originals, half tone, continuous tone, colour theory. Practising reproduction operations with black and white line originals.

MAT 217 Printing Press Systems Fundamentals: General information about all printing systems.

MAT 216 Electronic Composition Systems: Examining of input units and introduction to photo electronic type-setting systems, examining the data transfer between input and output units, introduction to fonts, concepts of memory, micro processor, speed, examining the monitors, resolution of screens, general characteristics of laser writers, resolutions, general characteristics of image setters. Examining the materials which are used in type-setting. Introduction to graphic design softwares.

MAT 218 Film Preparation Techniques: Examining of the techniques of lithography, screen printing and gravure processes. According to these processes students learn how to prepare films for each printing system. Class lectures, demonstrations and hands on lab experiences.

MAT 311 Book Binding: This course consists of cover methods and techniques used in book binding, including sewing, adhesive binding, gilding. Basic conservation skills are taught. Students should bring several books of their own for binding.

MAT 312 Carton Package Design: Introduction to cardboard, carton production, constructions of cardboard packages, die cutting systems, dies, the preparation of dies by Dtec software.

MAT 313 Screen Printing Process: Frame construction, fabric selection, stretching of fabric, photo-mechanical stencil systems; screen printing systems. Also including an overall view of modern screen printing systems. Class lectures, demonstrations and hands on lab experiences.

MAT 314 Quality Control in Graphic Arts: The importance of quality control in printing. The conceptual aspect of quality and quality printing, defect detection. The management role in creating quality environment, densitometry for measurement, use of quality control devices for process control.

MAT 316 Printing Production Organisation: Production steps of different types of works such as book production, brochures, package, newspaper etc.

MAT 318 Color: Theory of light and color, basic theory of process color, theory of CIE color system, color matching systems.

MAT 331 Advanced Electronic Composition Systems I: Pratical examining of general characteristics and capacities of electronical type-setting systems, examining the command and menu based softwares and operating systems.
MAT 321 Advanced Printing Techniques I: Standard paper and cardboard sizes, choosing the proper size, getting the printing machine ready to print. Practices in the lab.

MAT 322 Advanced Printing Press Techniques: Negative and positive image assembly practices, assembly methods, exposing lithographic plates, the preparation of offset machine to press, preparation of ink, loading paper to the machine, inks and fountain solution and trouble shootings.

MAT 323 Image Assembly and Imposition: The types of imposition, drawing page folder, projection stripping systems, colour and black and white imposition techniques, Electronic stripping. Lecture and laboratory experiences.

MAT 324 Financial Controls in Printing Press: Selection of machine investment in printing, choosing the right size of machines according to the size of work, choosing the right printing technique according to the specifications of the work.

MAT 325 Printing Plate Technology: The characteristics of printing plates that are used in, letter press, lithography, gravure, flexo and screen printing systems.

MAT 326 Relief Printing Systems: General specifications of letter press, dry offset, flexo printing techniques, their similarities and differences. Class lectures and practising in the lab.

MAT 332 Advanced Electronic Composition Systems II: Laboratory studies, basic principles of book design, type-setting in foreign languages and graphic practices with DTP softwares.

MAT 333 Financial Controls in Electronic Composition Systems: The concepts of cost, cost of materials, used in type setting and calculation of their price per copy. The factors that affect on the cost.

MAT 334 Work Organisation on Electronic Composition Systems: Working on desk top publishing soft wares and choosing the proper soft ware for the original copy. Physical conditions of working area, the relationship between the customer and the designer.

MAT 335 Design on Electronic Composition Systems: Introduction to graphic design softwares, tools and commands. Each student chooses a software which he/she is interested in and learn how to use it in this course. At the end of the semester, the student demonstrates the software in the lab.

MAT 336 Utility softwares in Electronic Composition Systems: Examining page description languages, operating systems, disk tools, disk and hard disk formatting, using Mactools, Norton Disk doctor, rescue etc.

MAT 341 Advanced Reproduction Process I: Types of originals, characteristics of black and white line originals and copy preparation of them.
MAT 342 Advanced Reproduction Process II: Comprehending the specifications of continuous-tone originals. Screen types and screening continuous-tone originals and discussing the quality.

MAT 343 Reproduction Chemistry: Structure and characteristics of atom, molecules, and compound chemical reactions and their characteristics. Photo chemical reactions, silver halogens and their characteristics. Black and white photography, to comprehend the technology of colour photography.

MAT 344 Financial Controls in Reproduction Process: Cost concept, economical system investment in setting administrations and its cost, direct and indirect material cost. Factors and costs of waste materials.

MAT 345 Sensitometry: intensity of light, luminosity, coloured intensity of light, energy of light, exposing, light intensity and time relations, absorption, density, screen dot value, relation between the dot value and density.

MAT 346 Color and Tone Control in Color Separation: A study of basic color theory, materials and methods used in the printing industry for the reproduction of color originals.

MAT 412 Printing Estimating: General definitions such as price and cost. Stock and stock controls in printing. Development and the use of production standards and hourly rates will be analyzed to determine their importance in the pricing structure of printed materials.

MAT 414 Business Administration of Printing: Plant accounting systems covered as a tool for improving production management decision. Topics include accountings general philosophy and structure, inventory equipment, jobcost, standard cost and analysis of various budgeting and control techniques.

MAT 421 Advanced Printing Press techniques III: Stripping, types of arrangement of pages for printing such as sheetwise, work and-turn and work and-tumble. Types of offset printing plates, the evolution of offset printing from lithography to offset printing machines. Class lectures and practise in the lab.

MAT 422 Advanced Printing Press Techniques IV: Ink and foundation balance, control strips, densitometer using ink control systems and analysing their specifications, drying of inks, IR drying systems.

MAT 423 Gravure Process: Gravure printing systems, gravure inks, preparation of cylinders (plates).

MAT 425 The Specifications of Lithographic Machinery: History of lithography, lithographic system, small offset machines, sheetfed and web system offset machines ink and water control systems.
MAT 431 Advanced Electronic Composition Systems III: Physical, chemical and mathematical formulations type-setting softwares, specifications, laser printers, image setters and their specifications, taking outputs and compare the quality.

MAT 432 Advanced Electronic Composition System IV: Colour Separation in DTP systems, retouching, file formats, examining the problems, adaptation of old version programmes into the new ones.

MAT 433 Electronic Composition Systems Hardware: The evaluation of type-setting machines and their specifications.

MAT 435 Electronic Composition Softwares: Analysing desk top publishing softwares and taking outputs.

MAT 442 Advanced Reproduction Process IV: Examining the original and choosing the right reproduction technique to reproduce it, choosing the right materials (films, development etc.) and tools. Class lectures and laboratory experiences.

MAT 443 The Specifications of Reproduction Machinery: Analysing the specifications of reproduction machinery such as cameras, scanners, densitometers etc. The relations between exposing and developing.

MAT 445 Techniques of image Assembly: Image assembly techniques in line, half tone and continuous tone copies. Analysing these techniques to try to find the simplest and the most cheapest way. Class lectures and practising in the lab.

MAT 3457 - 458 Graduation Project: Student selects and develops an independent study project of his or her own design. It can be a research project and two or three students can share the same project.
DEPARTMENT OF TEXTILE EDUCATION

Head of Department : Prof. Dr. İnci TEZCAN

Professors : Dr. İnci BAŞER
Associate Professors : Dr. Yusuf İNANICI, Dr. Mehmet AKALIN
Assistant Professors : Dr. Suat CANOĞLU, Dr. Erkan İŞGOREN,
Dr. Erhan ÖNER, Dr. Nigar BAYDUZ,
Dr. Emine ERCAN, H. Altan ORAN

Instructors : Atilla GÜNAL, İsmail USTA, Fatma ÇİTOĞLU,
Rahmi KARAGÜVEN, Mukadder KARAMAN

The Department has five main fields of study:

Spinning Technology
Weaving Technology
Dyeing & Finishing Technology
Ready - Made Garment Technology
Knitting Technology

Language of Instruction: Turkish

The Department of Textile Education offers a B.Sc. program aiming at all areas of textiles areas include, Yarn Technology, Weaving Technology, Knitting Technology, Dyeing and Finishing and Ready - Made Garment sections. Students complete our programs to become textiles technic teachers in textile vocational and technical schools, as well as to take part in textile industry.
# Programs for Freshman Year and Sophomore Year (all sections)

## Freshman Year

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<thead>
<tr>
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<th>Second Semester</th>
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<tbody>
<tr>
<td>TEK 111 Fibres I</td>
<td>TEK 112 Fibres II</td>
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<tr>
<td>TEK 117 Basic Management</td>
<td>FEN 102 Mathematics II</td>
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<tr>
<td>FEN 101 Mathematics I</td>
<td>FEN 104 Physics II</td>
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<tr>
<td>FEN 103 Physics I</td>
<td>FEN 106 Organic Chemistry</td>
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<tr>
<td>FEN 105 Applied Chemistry</td>
<td>KUL 194 Turkish Language II</td>
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<td>KUL 193 Turkish Language I</td>
<td>KUL 196 Atatürk Principles</td>
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<td>KUL 195 Atatürk Principles</td>
<td>KUL 198 Foreign Language II</td>
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<tr>
<td>KUL 197 Foreign Language I</td>
<td>EĞT 182 The principles of Technical and vocational Educational</td>
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<tr>
<td>MAK 115 Technical Drawing</td>
<td>ELC 170 Basic Electrics and Electronics</td>
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<td>ELC 116 Computing</td>
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## Sophomore Year

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<thead>
<tr>
<th>First Semester</th>
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<tbody>
<tr>
<td>TEK Basic Knitting</td>
<td>TEK 262 Statistics</td>
</tr>
<tr>
<td>TEK 211 Physical Testing of Textiles</td>
<td>TEK 252 Textile Materials and Subsidaries</td>
</tr>
<tr>
<td>TEK 263 Basic Yarns</td>
<td>TEK 218 Chemical Testing of Textiles</td>
</tr>
<tr>
<td>TEK 265 Basic Weaving</td>
<td>TEK 264 Basic Dyeing and Finishing</td>
</tr>
<tr>
<td>KUL 293 History of Textile Technology</td>
<td>TEK 266 Basic Garment Making</td>
</tr>
<tr>
<td>EĞT 283 Student and Group Process</td>
<td>TEK 268 Work Time Analysis</td>
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<tr>
<td>EĞT 281 Individual and Learning Process</td>
<td>EĞT 282 Job Analysis and Program Development</td>
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<td>EĞT 284 Workshop/Vocational Teaching Methods</td>
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## UNDERGRADUATE PROGRAM in SPINNING TECHNOLOGY

### Junior Year

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<thead>
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<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>TEK 341 Synthetic Yarn Technology</td>
<td>TEK 340 Practical Work at Plants</td>
</tr>
<tr>
<td>TEK 343 Texturized Yarn Technology</td>
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<tr>
<td>TEK 345 New Spinning Methods</td>
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<tr>
<td>TEK 437 Spinning Calculation</td>
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<tr>
<td>KUL 397 Foreign Language V</td>
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</tr>
<tr>
<td>EĞT 311 Technology of Education</td>
<td></td>
</tr>
<tr>
<td>EĞT 382 Micro Teaching</td>
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<tr>
<td>EĞT 384 Vocational Guidance</td>
<td></td>
</tr>
<tr>
<td>EĞT 381 Measurement and Evaluation in Education</td>
<td></td>
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<tr>
<td>EĞT 383 Educational Technology</td>
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**Senior Year**

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<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td><strong>TEK 457</strong></td>
<td><strong>TEK 458</strong></td>
</tr>
<tr>
<td>Graduation Project</td>
<td>Graduation Project</td>
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<tr>
<td><strong>TEK 441</strong></td>
<td><strong>TEK 412</strong></td>
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<tr>
<td>Irregularity of Yarn</td>
<td>Quality Control Technology</td>
</tr>
<tr>
<td><strong>YÖN 401</strong></td>
<td><strong>Lab.</strong></td>
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<tr>
<td>Industrial Organization</td>
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<td>Elective</td>
<td><strong>EĞT 482</strong></td>
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<tr>
<td>Elective</td>
<td>Teaching Practice</td>
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**UNDERGRADUATE PROGRAM in WEAVING TECHNOLOGY**

**Junior Year**

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<thead>
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<tbody>
<tr>
<td><strong>TEK 331</strong></td>
<td><strong>TEK 330</strong></td>
</tr>
<tr>
<td>Weaving Design I</td>
<td>Practical Works at Plants</td>
</tr>
<tr>
<td><strong>TEK 333</strong></td>
<td><strong>KÜL 397</strong></td>
</tr>
<tr>
<td>Parts of Knitting Machines</td>
<td>Foreign Language V</td>
</tr>
<tr>
<td><strong>TEK 335</strong></td>
<td><strong>EĞT 311</strong></td>
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<tr>
<td>Textile Design</td>
<td>Technology of Education</td>
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<tr>
<td><strong>TEK 337</strong></td>
<td><strong>EĞT 382</strong></td>
</tr>
<tr>
<td>Knitted Fabric Analysis and Design</td>
<td>Micro Teaching</td>
</tr>
<tr>
<td><strong>TEK 339</strong></td>
<td><strong>EĞT 384</strong></td>
</tr>
<tr>
<td>Weaving Calculation</td>
<td>Vocational Guidance</td>
</tr>
<tr>
<td><strong>KÜL 397</strong></td>
<td><strong>EĞT 381</strong></td>
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<tr>
<td>Foreign Language V</td>
<td>Measurement and Evaluation in Education</td>
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**Senior Year**

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<tr>
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<tr>
<td><strong>TEK 457</strong></td>
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<td>Graduation Project</td>
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<tr>
<td><strong>TEK 481</strong></td>
<td><strong>TEK 412</strong></td>
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<tr>
<td>Weaving Design II</td>
<td>Quality Control Technology</td>
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<tr>
<td><strong>YÖN 401</strong></td>
<td><strong>Lab.</strong></td>
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<tr>
<td>Elective</td>
<td>Teaching Practice</td>
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<tr>
<td>Elective</td>
<td><strong>EĞT 481</strong></td>
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</table>
UNDERGRADUATE PROGRAM in DYEING AND FINISHING TECHNOLOGY

Junior Year

**First Semester**
- TEK 321 Finishing Processes
- TEK 323 Textile Dyeing and Finishing Machinery
- TEK 325 Chemistry of Dyeing
- TEK 327 Dyeing of Synthetic Fibres
- TEK 329 Color Measurement
- KÜL 397 Foreign Language V
- EĞT 311 Technology of Education
- EĞT 382 Micro Teaching
- EĞT 384 Vocational Guidance
- EĞT 381 Measurement and Evaluation in Education

**Second Semester**
- TEK 320 Practical Work at Plants

Senior Year

**First Semester**
- TEK 457 Graduation Project
- TEK 421 Printing Technology Elective
- TEK 421 Printing Technology Elective
- TEK 421 Printing Technology Elective

**Second Semester**
- TEK 458 Graduation Project
- TEK 412 Quality Control Technology Lab.
- EĞT 482 Teaching Practice

UNDERGRADUATE PROGRAM in READY-MADE GARMENT TECHNOLOGY

Junior Year

**First Semester**
- TEK 351 History of Garment
- TEK 353 Construction of Garment II
- TEK 355 Garment Machinery
- TEK 357 Techniques Sewing II
- KÜL 397 Foreign Language V
- EĞT 311 Technology of Education
- EĞT 382 Micro Teaching
- EĞT 384 Vocational Guidance
- EĞT 381 Measurement and Evaluation in Education

**Second Semester**
- TEK 350 Practical Work at Plants
Senior Year

First Semester

<table>
<thead>
<tr>
<th>Code</th>
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<tbody>
<tr>
<td>TEK</td>
<td>457 Graduation Project</td>
</tr>
<tr>
<td>TEK</td>
<td>453 Stylistic</td>
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<tr>
<td>TEK</td>
<td>417 Ready-Made Production and Factory Organization</td>
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<tr>
<td>YON</td>
<td>401 Industrial Organization</td>
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Second Semester

<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
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<tbody>
<tr>
<td>TEK</td>
<td>458 Graduation Project</td>
</tr>
<tr>
<td>TEK</td>
<td>412 Quality Control Technology Application</td>
</tr>
<tr>
<td>TEK</td>
<td>452 Principles of Fashion</td>
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<tr>
<td>TEK</td>
<td>454 Work-Time Analysis in Garment Making</td>
</tr>
<tr>
<td>EGT</td>
<td>482 Teaching Practice</td>
</tr>
</tbody>
</table>

COURSE DESCRIPTIONS
(COMMON VOCATIONAL COURSES)

Basic Yarn: Yarn production systems, yarn types, the organization of the yarn production stages.

Basic Weaving: Woven and non-woven surfaces, preparatory stages to weaving, weaving production techniques, type of woven structures, pattern fabric weaving and detection of the faults in woven fabrics.

Fibres I: The classification and general properties of the textile fibres. The production, properties and use of the natural vegetable and animal fibres.

Fibres II: The definition, classification and production methods of the synthetic fibres. The properties and uses of polyamid, polyester, polyvinyl (PVC, acrylic, modacrylic, polvinyl alcohol) fibres, polyolefin (polyethylene, polypropylene and teflon) and polyurethane fibres.

Basic Dyeing and Finishing: The general and short information on the preparatory processes, dyeing, finishing and printing processes of all fibres.

Chemical Testing of Textiles: General rules and knowledge in carrying out the chemical testing. Fibre analyses. Fastness tests.

Physical Testing of Textiles: Measurements of strength and elongation and calculation of the fineness, evenness and number of textile yarns and materials.

Basic Garment Making: General information in ready-made garment industry, work organization, CAD-CAM systems, pattern design, taking measurements.

Basic Knitting: General knowledge on knitting technology. The production techniques and calculations.
Textile Materials and Subsidiaries: Introduction to the textile fabric production techniques and the explanation of the production techniques and material selection in respect to the end-use.

COURSE DESCRIPTIONS

TEK 111 Fibre Science I: Classification of fibres. Fine structure and basic properties of fibres. Production, structure and properties of plant and animal fibres.

TEK 112 Fibre Science II: Classification of man-made fibres. Production, structure and properties of man-made fibres (regenerated and synthetic fibres).

TEK 113 Spinning Technology: Classification of spinning. Cotton spinning from ginning to yarn production, carded and combed. New spinning methods briefly. Spinning of synthetic fibres, silk and bast fibres, woolen and worsted spinning. Count systems.


TEK 115 Weaving Technology: Classification of fabrics, weft insertion, picking systems on weaving looms, shuttle, rapier, air-jet and water-jet projectile.

TEK 116 General Ready-Made Garment Technology: Ready-made garment industry together with the technology of garment making; principles and garment making taught.


TEK 210 Technology Application: Typical defects and their analysis methods of fabrics. Fabric testing and analysis methods. CAD of knitted fabrics.

TEK 211 Chemical Testing: Analysis and discharging of size, dyes and finishing materials. Analysis of fibres by chemical methods.

TEK 212 Knitting Technology: The basic knitting elements and systems definition: Classification of the knitting looms, the analysis of the main.


TEK 221 Wet Processes of Protein Fibres: Scouring, milling, crabbing, carbonizing, bleaching, dyeing and finishing of wool materials.

TEK 223 Wet Processes Vegetable Fibres: Desizing, boiling, bleaching, mercerizing and dyeing of cellulosic fibres.


TEK 325 Chemistry of Dyes: Definition and properties of dyes. Classification of dyes as chemical structure. Azo, nitro, polymethin, arilmethin and aza analogs, aza annulen carbonil and sulfur dyes.

TEK 327 Dyeng of Synthetic Fibres: Wet-processing and dyeing of polyester, polyamid, polyacrylonitril and modacrylic fibres.


TEK 339 Weaving Calculations: Calculations of yarn counts, warp calculations, reed calculations, calculations of expenses of doubled yarns.

TEK 331 Weaving Design I: Derivatives of the main weaves, fancy weaves, pile weaves card and weft velvet weaves.


TEK 480 Flat Knitting: General concept of flat machines. The cam and yarn feeding systems. Stoll selectonit electronic selection.

TEK 337 Knitted Fabric Analysis and Design: Designing of knitted structures. The techniques of analysis and calculations of the knitted fabrics.

TEK 231 Woolen Weaving Technology: The mechanisms of woolen weaving machines. The pile, jacquard weaving looms. Tufting and woven carpet machines mechanisms.

TEK 431 Weaving Design II: Warp and weft supported weaves design. Multi-flayer fabrics design, carpet and velvet weaves design.


TEK 437 Spinning Calculations: English weight and length units. Count systems Ne, Nm, Tex and Den. Counts of doubled yarns. Irregularity calculations. Production and calculations on some machinery.

TEK 257-357 Sewing Techniques I-II: Sewing techniques are thought for different parts of the garment.

TEK 253 Construction of Garment I-II: Construction of garment re thought with various methods for different.

HAZ 119 Garment Materials: Materials (collors, buttons, zips etc.) necessary for garment making are explanied.

TEK 355 Garment Machinery: All the machinery and parts used for garment are taught.

TEK 351 History of Garment: History of garment making from ancient times to date are outlined.

TEK 453 Stylistics: Drawing techniques for garment making, models and fashions.

HAZ 216 Ready-Made Garment Making Techniques: Techniques employed in garment making in terms of all productions.
TEK 412 Quality Control: Quality control in production and product itself are outlined in textile manufacturing.

TEK 417 Ready-Made Production and Factory Organization: Production and factory organization in all stages of garment making is investigated.

TEK 454 Work Time Analysis in Garment Making: Plan and analysis of work time in garment making in stages or in whole production.

TEK 452 Principles of Fashion: Concept of fashion; whole spectrum of garment making is studied.

TEK 415 Production Methods: The system in production management and the relationship between organization and systems.

TEK 255 Application Pattern: Model applications of basic pattern of body and basic pattern of skirt.
III. VOCATIONAL SCHOOLS

HAYDARPAŞA VOCATIONAL
SCHOOL OF HEALTH RELATED PROFESSIONS

Director : Prof. Dr. Osman HAYRAN
Assistant Director : Nuran AKYURT

Language of Instruction: Turkish

Marmara University Haydarpaşa Vocational School of Health Related Professions was founded by a protocol between Ministry of Health and Higher Education Council in 1992. Nearly 120 students are currently enrolled.

The school is located in a building of the Ministry of Health - which was formerly used as a vocational high-school- at Haydarpaşa, a district on the Anatolian side of İstanbul.

All applicants are required to take the central University Enterance Exam. This examination is open for all high-school graduates who wish to continue their education in any faculty. The students who are successful at the first level "Student Selection Examination" are admitted to the school according to their scores.

DEPARTMENT OF RADIOLOGY

Chairman : Assistant Prof. Dr. Tuğrul BİREN, M.D.
Professors : Nevzat GÜRÜNEN, Osman HAYRAN, Beki KAN,
            Şule OKTAY, Ahmet L. ORKAN
Associate Professors : Seçil AKŞAYAN, Erdal ARİSAN, Safiye ÇAVDAR,
                      Şefik GÖRKEY, Turgut TUROĞLU, Aymelek YALIN,
                      Berrak YEĞEN,
Assistant Professors : İnci ALİCAN, Fatma Eti ARSLAN, Nigar BAYKAN,
                      Tuğrul BİREN, Hizir KURTSEL, Nermin OLGUN,
                      Osman Ziya SAYHAN, Nihal SÖKMEN,
                      Ismet ŞAHİNLER, Davut TÜNEY
Instructors : Nuran AKYURT, Nurset ERDOĞAN, Ayşe İlhan GARİP,
             İlter GÜNÇ, Zerrin ÖZOKUTUCU, Serap SEZER,
             Sertaç ÜLGEN, Vera BULGURLU, Oya EMERK,
             Mehmet İNCE, Saima KARATEPE, İsmet KURTEŞİ,
             Nurdan ÖZARALLI

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The aim of this department is to train the students as radiology technologists and to teach them how to work in the radiology departments. Education period is 2 years and the language of instruction is Turkish. In the first year, students receive lectures on basic medical sciences, fundamentals of radiologic examination techniques and principles of radiologic imaging techniques. In the second year, students attend practical courses in departments of Radiology at various training hospitals of İstanbul province. During this education and training program students gain full experience as radiology technologists.

PROGRAM IN RADIOLOGY

First Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>Physiology</td>
<td>Radiologic Examination Techniques II</td>
</tr>
<tr>
<td>Anatomy</td>
<td>Physics of Diagnostic Radiology</td>
</tr>
<tr>
<td>Basic Chemistry</td>
<td>X-Ray Machine and Equipment</td>
</tr>
<tr>
<td>Physics</td>
<td>Dark Room Techniques</td>
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<tr>
<td>Biology and Genetics</td>
<td>Radiation Protection Procedures</td>
</tr>
<tr>
<td>Medical Imaging Techniques</td>
<td>Pharmacology of the Contrast Media</td>
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<tr>
<td>Medical and Radiologic Terminology</td>
<td>Medical Documentation</td>
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<tr>
<td>Radiologic Examination Techniques I</td>
<td>First Aid</td>
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<tr>
<td>Radiologic Anatomy</td>
<td>Turkish II</td>
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<tr>
<td>Hospital Administration</td>
<td>Physical Ed./Art.</td>
</tr>
<tr>
<td>Turkish I</td>
<td>Foreign Language II</td>
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<tr>
<td>Physical Ed./Art.</td>
<td>Atatürk Principles II</td>
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<tr>
<td>Foreign Language I</td>
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<tr>
<td>Atatürk Principles I</td>
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Second Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>Basic Radiotherapy I</td>
<td>Basic Radiotherapy II</td>
</tr>
<tr>
<td>Radiobiology and Nuclear Medicine I</td>
<td>Radiobiology and Nuclear Medicine II</td>
</tr>
<tr>
<td>Emergency Radiology</td>
<td>Biostatistics</td>
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<tr>
<td>Digital Radiology I</td>
<td>Digital Radiology II</td>
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<tr>
<td>Fundamentals of Sterilization</td>
<td>Computer Sciences</td>
</tr>
<tr>
<td>Human Relations</td>
<td>Advanced Techniques in Radiology</td>
</tr>
<tr>
<td>Computer Language</td>
<td>Foreign Language</td>
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<tr>
<td>Practical Courses</td>
<td>Practical Courses</td>
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</table>
COURSE DESCRIPTIONS

Medical Imaging Techniques: Introduction to the medical imaging techniques, characteristics of the radiologic image, roentgenography, mammography, computed tomography, angiography and DSA, ultrasonography, magnetic imaging, nuclear medicine.

Radiologic Anatomy: Radiologic anatomy of the upper extremity, lower extremity, cranium, spine, abdomen and chest, sectional anatomy, vascular anatomy.

Radiologic Examination Techniques-I: Introduction to the direct conventional radiologic examination techniques, fundamentals of direct radiologic examination techniques, direct conventional radiologic examination techniques of the upper extremity, lower extremity, cranium, spine, abdomen and chest.

Radiologic Examination Techniques-II: Introduction to the conventional radiologic examination techniques which used contrast media, radiologic examination techniques of the GI system, radiologic examination techniques of the genitourinary system, special radiologic examination techniques such as myelography and angiography.

Medical and Radiologic Terminology: The definitions and the meanings of medical and radiologic terms that are used in daily practice.

Physics of the Diagnostic Radiology: Radiation, X-rays, basic interactions between X-rays and substances, physical and photographing characteristics of X-ray films, intensifying screens, filters and grids.

Dark Room Techniques and Radiographic Film Processing: Design of the dark room, processing chemistry, automatic processing, types of radiographic film, quality assurance, artifacts.

The X-Ray Machine and Equipment: Characteristics of X-ray machine, X-ray tubes, high voltage section, operating console.

Basic Radiotherapy: Introduction to radiotherapy, early and latent effects of radiation, radiotherapy planning.

Radiation Protection Procedures: Reduction of occupational exposure, reduction of unnecessary patient dose.

Radiobiology and Nuclear Medicine: Fundamentals of radiobiology, molecular and cellular radiobiology, radiopharmaceuticals, nuclear medicine equipment.


Emergency Radiology: Principles of emergency radiology, skeletal trauma, cranial trauma, chest trauma, abdominal trauma.
Advanced Techniques in Radiology: Principles and clinical applications of; Computerized Tomography (CT), Ultrasound (US), Magnetic Resonance Imaging (MRI), Digital Subtraction Angiography (DSA).

DEPARTMENT OF ANESTHESIOLOGY

Chairman: Assistant Prof. Nigar BAYKAN
Professors: Yılmaz GÖĞÜŞ, Osman HAYRAN, Beki KAN, Şule OKTAY, Ahmet L. ORKAN
Associate Professors: Seçil AKŞAYAN, Erdal ARİSAN, Safiye ÇAVDAR, Şefik GÖRKEY, Turgut TUROĞLU, Aymelek YALIN, Berrak YEĞEN
Assistant Professors: İnci ALİCAN, Fatma Eti ARSLAN, Nigar BAYKAN, Tuğrul BİREN, Hizir KURTEL, Nermin OLGUN, Nihal SÖKMEN, İsmet ŞAHİNLER, Davut TÜNEY
Instructors: Nuran AKYURT, Ayşe İnan GARİP, İlter GÜNEY, Sertaç ÜLGEN, Vera BULGURLU, Oya EMERK, Mehmet İNCE, Sayıme KARATEPE, İsmet KURTEŞİ, Nurdan ÖZARALLI

The aim of this department is to train the students as anesthesia technologists and to teach them how to work in the anesthesia departments. Education period is 2 years and the language of instruction is Turkish. In the first year, students receive lectures on basic medical sciences, fundamentals of sterilization, first aid, communicable diseases and principles of anesthesia. In the second year, students attend practical courses in the departments of anesthesia of various training hospitals in Istanbul.

PROGRAM IN ANESTHESIOLOGY

First Year

First Semester
- Physiology
- Anatomy I
- Anesthesiology I
- Basic Chemistry
- Biophysics
- Principles of Sterilization
- Hospital Administration
- Medical Terminology
- Medical Documentation
- Turkish Language I
- Foreign Language I
- Atatürk Principles I

Second Semester
- Anatomy II
- Anesthesiology II
- Organic Chemistry
- First Aid
- Pharmacology
- Turkish Language II
- Foreign Language II
- Atatürk Principles II
- Elective Lectures

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Second Year

First Semester

Anesthesiology I
Public Health I
Foreign Language III
Human Relations I
Biostatistics
Computer Sciences
Practical Courses

Second Semester

Anesthesiology II
Public Health II
Foreign Language IV
Practical Courses

COURSE DESCRIPTIONS

Anesthesiology: Principles and methods of anesthesiology, anesthetic agents, equipment and devices used in anesthesia.

Anatomy: Terminology of anatomy, bones and muscles, the skull, cardiovascular system, digestive system, neuroanatomy.

Physiology: Introduction to human physiology, excitable cells and bioelectric potentials, locomotor system, nervous system, blood, cardiovascular system, respiratory system, gastro-intestinal system, renal physiology, endocrine system, sensory organs, genitourinary system.

Basic Chemistry: Chemical calculations, atomic structure, chemical bonding, chemical equations, gases, solutions, chemical kinetics and chemical equilibrium, acids and bases.

Organic Chemistry: Hydrocarbons, alcohols and ethers, carbonyl compounds, carboxylic acids and esters, carbohydrates, amines and amides, amino acids, aromatic compounds.

Biostatistics: General principles of statistics, statistics in health sciences, data collection and analysis.

Biophysics: Pressure and circulatory system, molecular phenomena related to biological process, electrical and electronic instruments, bioelectricity.

Medical Documentation: Principles of medical documentation, patient files, use of computers in documentation.

Public Health: Principles of primary health care, organization of health services, ecology and environmental health, preventive medicine, health education.
SCHOOL OF NURSING

Director : Assoc. Prof. Dr. Hediye EKİZLER
Associate Professors : Seçil AKŞAYAN, Gülten ÖZALTIN, Deniz ŞELİMEN
Assistant Professors : Şule Ecevit ALPAR, Nefise BAHÇECİK,
                      Hatice PEK, Özlem IŞIK, Nuran KÖMÜRÇÜ,
                      Güler CİMÊTE, Oya Nuran EMİROĞLU,
                      Nermin OLGUN, Fatma Eti ASLAN,
Instructors : Nimet Sevgi GENÇALP, Sema YAZICI,
              Zerrin YILDIRIM, Aysel DURADEMİR,
              Nurdan TEKİN, Gülfer BEKTAŞ,
              Hatice ERYILMAZ, Rukiye PINAR,
              Aynur DİNÇSEVER.

Language of Instruction: Turkish

The School of Nursing offers a four-year program of undergraduate education in Nursing. The educational program in nursing consists of approximately equal number of general academic and professional nursing courses which are coordinated and integrated with clinical practice.

The aim of the School of Nursing is to prepare students for the nursing profession and thereby help to meet the changing needs for health services in Turkey and society in general. The students are expected to acquire the knowledges, skills, attitudes, understanding and work habits associated with the nursing profession.

In order to achieve this objective, the undergraduate curriculum, leading to the Bachelor of Science degree, is designed to provide a basic knowledge of medical and social science subjects; fundamentals of nursing and medical-surgical nursing, obstetrics and gynecological nursing, pediatric nursing, psychiatric nursing, community health nursing, education in nursing and administration in nursing.
UNDERGRADUATE PROGRAM

Freshman Year

First Semester
Introduction to Nursing
Fundamentals of Nursing I
Interpersonal Relationships in Nursing
Anatomy
Histology
Psychology
Introduction to Nutrition
Biochemistry
Turkish I
Basic English I
Atatürk Principles I

Second Semester
Fundamentals of Nursing II
Physiology
Microbiology-Parasitology
Turkish II
Basic English II
Atatürk Principles II

Summer Practice
Fundamentals of Nursing (3 weeks)

Sophomore Year

First Semester
Medical Nursing
Pathology
Pharmacology
Psychology of Education
Basic English III
Elective

Second Semester
Surgical Nursing
Epidemiology and Nursing Research I
Infectious Diseases Nursing
Health Education
Basic English IV
Elective
Summer Practice
Medical Nursing (2 weeks)
Surgical Nursing (2 weeks)

Junior Year

First Semester
Obstetrics and Gynecological Nursing
History of Nursing and Ethics- Legislation of Nursing
Biostatistics
Health Sociology
Professional English I

Second Semester
Pediatrics Nursing
Epidemiology and Nursing Research II
Disaster Nursing and First Aid
Health Anthropology
Professional English II
Summer Practice
Obstetrics and Gynecological Nursing (2 weeks)
Pediatric Nursing (2 weeks)
Senior Year

First Semester
Psychiatric Nursing
Education in Nursing
Basic Computer
Professional English III

Second Semester
Community Health Nursing
Administration in Nursing
Professional English IV

COURSE DESCRIPTIONS

Introduction to Nursing: The aim of this course is to enable the students to be more informative and more aware of the nursing profession, also the organization and the function of the university and the school of nursing as an integral part of the University.

Interpersonal Relationship in Nursing: This course analyses the nurse-client (patient or healthy person) interaction, communication and the dynamic factors concerning it.

Fundamentals of Nursing: In this course, the rules of personal hygiene and basic nursing techniques and principles are being studied and demonstrated. The aim of this course is to help the students to acquire the related knowledge, skill and attitudes through lectures, classroom demonstrations and clinical experiences under the guidance of the instructors.

Medical Nursing: This course provides theoretical knowledge and practical skill about internal diseases, and also preventive aspects, diagnostic process, physiopathology of diseases and principles of nursing care.

Surgical Nursing: This course provides knowledge about the basic principles of surgery, surgical diseases and related nursing care; and helps the student to gain practical skills consequently.

Epidemiology and Nursing Research I-II: These courses provide the knowledge of epidemiology, the principles of epidemiological research; teach various research methods and process of writing a paper from the selection of the subject to the typing stage through theoretical lectures and practices.

Infectious Diseases Nursing: In this course, epidemiology, diagnosis, characteristics and methods of control of the most commonly seen infectious diseases in Turkey and the respective nursing care is being emphasized.

Health Education: This course analyses the importance, objectives, principles, planning models, techniques and subjects of health education; and health education studies in Turkey.
Obstetrics and Gynecological Nursing: This course focuses on pregnancy and the principles of basic concepts of nursing in obstetrics and gynecology in relation to the promotion and maintenance of health.

Pediatric Nursing: This course is based upon the normal growth and development of pediatric age group with emphasis on healthy child care, medical aspects and ability to deliver nursing care under deviational conditions.

History of Nursing and Ethics - Legislation of Nursing: This course is focused on the principles or ethics and legal aspects of nursing. Historical background of nursing in Turkey and the comparing with the development of nursing in other countries are studied.

Health Anthropology: The concepts of health and illness as cultural meaning systems in relation to the concepts of culture and ethnocentrism. The holistic approach to the analysis of societies; field work research in anthropology and its application to the study of health and illness; visual anthropology: films as a means of communication and films as cultural artifacts.

Health Sociology: The development of social science disciplines in the 19th and 20th centuries; differences and similarities in social and medical sciences; social stratification and the health sector. Gender, social hierarchy and health.

Disaster Nursing and First Aid: This course gives some knowledge and skills related to immediate, and post accidental interventions in order to save human life and prevent or limit handicaps in such situations as; disasters, acute diseases or accidents.

Psychiatric Nursing: This course analyses abnormal human behaviour and provides the student the knowledge of the principles, functions and process of psychiatric nursing and how to apply this knowledge in clinical practice.

Community Health Nursing: This course includes the concepts related to health and disease, health promotion, health protection, rehabilitation, and home care for the patient; and gives the knowledge about the principles, functions and processes of the community health nursing and helps the student to gain practical skills consequently.

Education in Nursing: In this course, the principles of teaching and the characteristics of teaching process in nursing areas are being studied on the theoretical and practical base.

Administration in Nursing: This course focuses on the principles of administration and leadership skills in order to prepare the student for their future administrative roles, functions and responsibilities.
SCHOOL OF PHYSICAL EDUCATION AND SPORTS

Director : Prof. Dr. Bilge AYKURT, M.D.
Assistant Director : Assoc. Prof. Dr. Sami MENGÜTAY

The Marmara University School of Physical Education and Sports was initially founded as a Sports Academy during the 1975-1976 academic year. In 1982, it joined Atatürk Faculty of Education as a Physical Education and Sports Branch and finally in 1993 it became a part of the Marmara University.

The Marmara University School of Physical Education and Sports offers 4 year undergraduate programs in the fields of Physical Education and Sports Teachers, Sports Trainers and Sports Management. It also offers post graduate and doctoral programs in a variety of sports related fields. Admission criteria include passage of first step of the University Entrance Exams (ÖSS) and special sports ability and physical fitness testing. Each of these two categories contributes 50% to the final entrance score.

DEPARTMENT OF PHYSICAL EDUCATION and SPORTS TEACHERS

Head of Department: Assoc. Prof. Hasan Kasap

This department offers a 4-year undergraduate program for students who are interested in becoming Physical Education and Sports teachers in secondary schools. Aside from obtaining licenses as teachers, students may also obtain special certificates in areas such as first aid, water safety and lifesaving and basic coaching. First two years of training are dedicated to basic education and last two years are geared towards special branches. During these four years, students have to attend two special camps such as skiing, tracking, mountaineering, rock climbing, etc.
The Department of Physical Education and Sports Teachers encompasses two branches:

1. Physical Education and Sports Training
   
   **Chairman**: Associate Professor Müslim Bakır, Ph.D.  
   **Faculty Members**: A. Terzioğlu, Ph.D.; A. Paşaoğlu, Ph.D.; A. Babalik, Ph.D.; E. Özata, Ph.D.; N. Özata, Ph.D.; Ş. Ünal, Ph.D.; B. Ünlü, Ü. Altinok; İ. Güvendiren; Y. Toprakçı, S. Bilgin; N. Ramazanoğlu; E. Albayrak; S. Fidan; F. Sani; Ç. Güler; E. Hatipoğlu; I. Kurteşi; S. Pınar; L. Güler; B. Yavuz; F. Anlatamer.

2. Psycho-social fields in Sports
   
   **Chairman**: Dilaver Cebeci, Ph.D.  
   **Faculty Members**: C. İkizler, M.D.; H. Köksal

### UNDERGRADUATE PROGRAM

#### Freshman Year

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<thead>
<tr>
<th>First Semester</th>
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<tr>
<td><strong>Course Number</strong></td>
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<td>1301 Physiology II</td>
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<td>1101 Introduction to Sports</td>
<td>1102 History of Sports</td>
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<td>1701 Turkish Language I</td>
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### Sophomore Year

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<td>2602 Psychology of Learning</td>
<td>2601 Basic Teaching Methods</td>
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<td>2101 Preschool and Primary School PE</td>
<td>2102 Learning Sports Skills</td>
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### Junior Year

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<td>3501 Sports Psychology</td>
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<td>2202 Anthropometry</td>
<td>2203 Evaluation of Aptitude</td>
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<td>3101 Management and Organization of School Sports</td>
<td>3102 Educational Games</td>
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<td>2302 First Aid</td>
<td>3301 Sports Traumatology</td>
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<tr>
<td>3104 Volleyball (methods)</td>
<td>3103 Observing PE classes in Schools</td>
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<tr>
<td>3105 Basketball (methods)</td>
<td>3108 Handball (methods)</td>
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<td>3106 Athleticism (methods)</td>
<td>3602 Sociology of Education</td>
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<td>3107 Folk-dances (methods)</td>
<td>3109 Gymnastics Exhibition</td>
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<td>3202 Elective Sports Branches (trainer education)</td>
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<td>2204 Science of Training I</td>
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<td>3710 Research Methods</td>
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<tr>
<td>4603 Applied PE Teaching Methods (internship)</td>
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<td>4101 Artistic Gymnastics Methods</td>
<td>4102 Wrestling Methods II (B), Rhythmic Gymnastics Methods (G)</td>
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<td>4104 Football Methods (B), Elective Sports Branches Methods (G)</td>
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A Group Elective Courses for Freshmen

1202  Sports Technology
1203  Accompanying Movement with Music
1302  Biochemistry
1401  Introduction to Management
1402  Basic Law
1403  Sports Institutions
1406  Regional Government and Sports
1405  Group Dynamics
1501  Sports Ethics
1502  Youth Leadership
1602  Youth Leadership
1602  Technology of Education
1703  Basic Computers
1711  Art
1712  Basic Music Education

A Group Elective Courses for Sophomores

2205  Sports Branches and Institutions
2206  Recreation and Animation
2207  Field and Equipment
2208  Movement with Music
2209  Folkloric Sports
2403  Ergonomics
2404  Sports and Industry
2705  Career Oriented Foreign Language I
2709  Computers in Sports

A Group Elective Courses for Juniors

3201  Handicapped and Sports
3204  Performance Tests
3302  Doping and Ergonomic Aids
3303  Nutrition
3304  Sports Economy
3305  Health Organizations in Sports
3401  Sports Management and Organizations
3401  Sports Law
3403  Sports Politics
3404  Illness and Exercise
3405  Sports Management
3502  Career Oriented Foreign Language II
3706  Social Psychology
### A Group Elective Courses for Seniors

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<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>4105</td>
<td>Comparative Physical Education and Sports</td>
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<td>4107</td>
<td>Developing PE Programs</td>
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<td>4201</td>
<td>Sports Biomechanics</td>
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<td>4202</td>
<td>Applied Coaching Branch</td>
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<td>4301</td>
<td>Sports Rehabilitation</td>
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<td>4302</td>
<td>Sports for Everyone</td>
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<td>4401</td>
<td>Statistics</td>
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<td>4402</td>
<td>Sports Marketing</td>
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<td>Communications in Sports</td>
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<td>Personnel Management</td>
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<td>4407</td>
<td>Sports and Tourism</td>
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<td>4408</td>
<td>Sports and Business Administration</td>
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<td>4410</td>
<td>Applied Sports Management</td>
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<td>4707</td>
<td>Career Oriented Foreign Language III</td>
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### B Group Elective Courses for Seniors

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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>B 101</td>
<td>Halter</td>
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<td>B 102</td>
<td>Aerobics and Step</td>
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<tr>
<td>B 103</td>
<td>Badminton</td>
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<tr>
<td>B 104</td>
<td>Taekwondo</td>
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<tr>
<td>B 105</td>
<td>Table Tennis</td>
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<td>B 106</td>
<td>Escrim</td>
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<tr>
<td>B 107</td>
<td>Tennis</td>
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<td>B 108</td>
<td>Boxing</td>
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<td>B 109</td>
<td>Body Building</td>
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<td>B 110</td>
<td>Judo</td>
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<tr>
<td>B 111</td>
<td>Rowing</td>
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<td>B 112</td>
<td>Swimming</td>
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<td>B 113</td>
<td>Sailing</td>
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<tr>
<td>B 114</td>
<td>Riding</td>
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<td>B 115</td>
<td>Archery</td>
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<tr>
<td>B 116</td>
<td>Bicycling</td>
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<td>B 117</td>
<td>Shooting</td>
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<td>B 118</td>
<td>Modern Dance</td>
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<td>B 119</td>
<td>Ice Skating</td>
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<td>B 120</td>
<td>Movement Theater</td>
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<td>B 121</td>
<td>Games-Music-Dance</td>
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<tr>
<td>B 122</td>
<td>Underwater Lifesaving</td>
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<td>B 123</td>
<td>Water Sports</td>
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<td>B 124</td>
<td>Scouting</td>
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<tr>
<td>B 125</td>
<td>Skiing</td>
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<tr>
<td>B 126</td>
<td>Mountaineering</td>
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<tr>
<td>B 127</td>
<td>Tracking</td>
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<tr>
<td>B 128</td>
<td>Rock Climbing</td>
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<td>B 129</td>
<td>Canoe</td>
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<tr>
<td>B 130</td>
<td>Rafting</td>
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<td>B 131</td>
<td>Group Sports</td>
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<tr>
<td>B 132</td>
<td>Karate</td>
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<td>B 133</td>
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### COURSE DESCRIPTIONS

#### Physical Education and Sports Courses

1101 **Introduction to Sports:** Emphasizes the basic elements of the science of sports. The lectures describe the responsibility of a sports educator and compare sports education with other fields.
**1102 Sports History:** Considers the history of sports starting from the ancient times, to the middle ages and finally to the present time. The class also considers the history of Turkish sports in comparison with the world.

**1103 Gymnastics:** The class teaches the correct body posture and hand-eye coordination that forms the basis of movement in sports.

**1104 Basic Rhythm Education:** Teaches the basic skills and techniques of rhythm.

**1105 Athletics I:** Teaches the basic techniques of throwing, jumping and running.

**1106 Basketball I:** Teaches the basic techniques of basketball.

**1107 Volleyball I:** Teaches the basic techniques of volleyball.

**2101 Preschool and Primary School Physical Education:** Emphasizes sports education skills needed to teach young children.

**2103 Football I:** Teaches the basic techniques of football.

**2104 Wrestling I:** Teaches the basic techniques of wrestling.

**2105 Rhythmic Gymnastics I:** Teaches the basic techniques of rhythmic gymnastics.

**2106 Artistic Gymnastics I:** Teaches the basic techniques of artistic gymnastics.

**2107 Handball I:** Teaches the basic techniques of handball.

**2108 Folkloric Dances I:** Teaches basic techniques of folkloric dances.

**3101 Management and Organization of School Sports:** Encompasses formation of leagues and organization of meets within schools and between schools, nationally and internationally.

**3102 Educational Games:** Organization of educational and preparatory games for all age groups.

**3103 Observing Physical Education Classes in Schools:** Purpose of this class is to learn and gain experience in teaching physical education by classroom observation and to prepare an observation report at the end of the observation period.

**3104 Volleyball II:** Emphasizes volleyball teaching methods and techniques to be used in teaching students of different abilities.

**3105 Basketball II:** Emphasizes basketball teaching methods and techniques to be used in teaching students of different abilities.
3106 Athleticism II: Emphasizes athleticism teaching methods and techniques to be used in teaching students of different abilities.

3107 Folkloric Dances II: Emphasizes folkloric dance teaching methods and techniques to be used in teaching students of different abilities.

3108 Handball II: Emphasizes handball teaching methods and techniques to be used in teaching students of different abilities.

3109 Spectator Gymnastics: Teaches gymnastics to be performed in front of a crowd.

3110 Educational Methods in School Sports: Encompasses teaching methods for all sports branches found in schools.

4101 Artistic Gymnastics II: Emphasizes artistic gymnastics teaching methods and techniques to be used in teaching students of different abilities.

4102 Wrestling II: Emphasizes wrestling teaching methods and techniques to be used in teaching students of different abilities.

4103 Rhythmic Gymnastics II: Emphasizes rhythmic gymnastics teaching methods and techniques to be used in teaching students of different abilities.

4104 Football II: Emphasizes football teaching methods and techniques to be used in teaching students of different abilities.

4105 Comparative Physical Education and Sports: Looks at physical education methods found around the world in countries with varying purpose and philosophies and tries to pinpoint why certain countries are more successful than others in sports education.

4106 Elective Sports Branch II: Emphasizes physical education teaching methods and techniques in a sports branch chosen by the student to be used in teaching students of different abilities.

4132 Program Development in Physical Education and Sports: Encompasses program planning and development in physical education.

Psycho-social fields in Sports

2102 Learning Sports Skills: Teaches neuro-anatomic and psycho-physiological basis of learning different skills in sports and looks at factors that help in learning, developing and remembering those skills.

3501 Sports Psychology: Personality, motivation, anxiety, performance and mental abilities are considered.
Pedagogic Formation Courses

1601 Introduction to Education: Defines types and purpose of education as well as looking at psychological, philosophical, economic and administrative basis of education. This class also considers the forward movement of the Turkish educational system.

1602 History of Turkish Education: Basic course in history of Turkish education system.

1603 Education Technology: Examines the influence of technology on education.

2602 Psychology of Education: Emphasizes the nature and relevance of educational psychology. Considers the influence of mental and emotional factors on learning. Personality development and personality differences are also discussed.

2601 Basic Teaching Methods: Encompasses social, psychological and economic basis of teaching programs. Considers planning and development of special teaching programs.

2603 Comparative Education: Compares the educational and sports systems of different countries.

3601 Measurement and Evaluation: Basic course in test types, development and application of tests and measurement and evaluation of a student's achievements. The course also deals with statistics and grading.

4501 Sports Sociology: Considers social systems, social change, social movement, social grouping, place of sports in society and social background of the spectators.

3602 Sociology of Education: Looks at educational sociology from system analysis point of view. Considers the relationship between education and society and the role of education in social change.

3603 Program Development: Discusses components of program development such as analysis of needs, content of programs, consideration of learning conditions and evaluation of students.

4601 Counseling: Emphasizes ways of understanding, following and evaluating students as well as the purpose of student counseling.

4602 Education Administration: Organization, coordination, communication, decision making and evaluation are some of the subjects that are covered. Other subjects discussed include administration and control of students, personnel, budget and other services.

4603 Applied Physical Education Teaching Methods: Covers special techniques of teaching a certain sports branch as well as providing the opportunity to practice
teaching. The applied portion of this class covers one semester of the junior year as a classroom observer and two semesters in the senior year as a student teacher.

General Culture Courses
1701 Turkish Language: Present day Turkish as well as its historical background are discussed. The language as a whole, its structure and rules are considered.

1702 Foreign Language: Gives basic knowledge of language of student's choice.

1711 Art: An introductory course in art.

1712 Basic Music Education: An introductory course in music.

2703 History of Turkish Culture and Civilization: Covers the history of Turkish culture and civilization.

2705 Career Oriented Foreign Language I, II, III: Teaches sports related technical terms and concepts in the language of student's choice.

3704 Research Techniques: Teaches rules and techniques of research and report writing.

DEPARTMENT OF SPORTS MANAGEMENT

Head of Department : Associate Prof. Muslim BAKIR, Ph.D.
Chairman : Associate Prof. Atilla Artam, Ph.D.

This department offers a 4-year undergraduate program for students who are interested in becoming Sports Managers.

First two years of training are dedicated to basic education and last two years are geared towards special branches.
### UNDERGRADUATE PROGRAM

#### Freshman Year

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## Senior Year

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"A" Group Elective Courses for Freshmen

1202 Sports Technology  
1405 Group Dynamics  
1406 Regional Government and Sports  
1407 Economy  
1502 Youth Leadership  
1601 Introduction to Education  
1708 Basic Computers  
2101 Preschool and Primary School PE  
2207 Field and Equipment  
2713 Sports and Religion  
3602 Sociology of Education

"A" Group Elective Courses for Sophomores

2202 Anthropometry  
2402 Intro. to Management  
2403 Ergonomics  
2404 Sports and Industry  
2601 Teaching Methods  
2602 Psychology of Education  
2705 Career Oriented Foreign Language  
2709 Computers in Sports  
3301 Sports Traumatology

"A" Group Elective Courses for Juniors

2204 General Training Methods  
3102 Observing PE Classes in Schools  
3110 Methods of Teaching School Sports  
3302 Doping and Ergonomic Aids  
3303 Nutrition  
3305 Health Organizations in Sports  
3502 Social Psychology  
3601 Measurement and Evaluation  
3706 Career Oriented Foreign Language  
4201 Sports Biomechanics  
4602 Teaching Methods

"A" Group Elective Courses for Seniors

4202 Applied Coaching Branch  
4302 Sports for Everyone  
4407 Sports and Tourism
"B" Group Elective Courses

B 101 Halter  B 118 Modern Dance
B 102 Aerobics and Step  B 119 Ice Skating
B 103 Badminton  B 120 Movement Theater
B 104 Taekwondo  B 121 Games-Music-Dance
B 105 Table Tennis  B 122 Underwater Lifesaving
B 106 Escrim  B 123 Water Sports
B 107 Tennis  B 124 Scouting
B 108 Boxing  B 125 Skiing
B 109 Body Building  B 126 Mountaineering
B 110 Judo  B 127 Tracking
B 111 Rowing  B 128 Rock Climbing
B 112 Swimming  B 129 Canoe
B 113 Sailing  B 130 Rafting
B 114 Riding  B 131 Group Sports Performance and Organization
B 115 Archery  B 132 Karate
B 116 Bicycling  B 133 Squash
B 117 Shooting

Required Sport Branches

1103 Basic Gymnastics
1105 Athleticism
1106 Basketball
1107 Volleyball
2103 Football
2104 Wrestling (B)
2105 Rhythmic Gymnastics (G)
2107 Handball

COURSE DESCRIPTIONS

1401 Introduction to Sports Management: An introductory course emphasizing basic management types, methods and skills as well as management functions and types of organizations.

1402 Basic Law: This course teaches the meaning of law, its branches and language as well as the Turkish judicial system.
1403 **Sports Organizations:** Encompasses sports organizations from 1903 to the present day as well as comparing Turkish sports organizations with those of the western world to form an opinion on the ideal sports organization.

1404 **Management Structure of Turkey:** Lectures emphasize management branches in Turkey.

1405 **Group Dynamics:** This course tries to bring an understanding to the dynamics between individuals in a group situation considering motivation, personal strength and authority.

1406 **Regional Government and Sports:** Emphasizes ways of motivating local governments to set up funds to increase sports facilities and to promote sports for everyone.

1407 **Economics:** Teaches the basic terms and principles of economics.

2401 **Management Law:** Emphasizes the place of sports organizations within the Turkish management structure and the Turkish judicial system.

2402 **Introduction to Management:** Gives information on the functions and importance of management and forms the basis of sports management.

2403 **Ergonomics:** Teaches ways of increasing production and output especially in sports.

2404 **Sports and Industry:** Discusses the relationship between sports and industry and their effects on each other.

3401 **Sports Management and Organizations:** Sports management in Turkey, sports organizations and Turkish sports politics are subjects that are covered.

3402 **Sports Law:** Gives background knowledge in sports law.

3404 **Sports Economics:** This is an introductory course in sports economics.

3710 **Research Techniques:** Emphasizes research planning, organization, application and reporting.

4401 **Statistics:** This course is designed to cover basic concepts and techniques of data analysis in sports.

4402 **Sports Marketing:** Lectures emphasize subjects to enhance sports mentality, performance and attendance in sports activities.

4403 **Labor and Social Security Laws:** Gives background knowledge in work and social security laws.
4404 Communication in Sports: Includes usage of media in sports and sports journalism.

4405 Public Relations: Covers the importance of public relations in sports.

4406 Personnel Management: Lectures cover major problems and policies in managing human resources in an organization such as recruiting, selection, training, supervision, compensation and promotion.

4407 Sports and Tourism: A course covering the place of sports in tourism.

4408 Sports and Business Administration: The purpose of this course is to give an understanding of the main principles of business administration in sports.

DEPARTMENT OF SPORTS TRAINERS

Head of Department: Associate Prof. Sami Mengütay, Ph.D.

This department offers a 4 year undergraduate program for students who are interested in becoming athletic trainers. Aside from obtaining licenses as trainers in their chosen sports fields, students may also obtain special certificates in areas such as first aid, water safety and lifesaving, sports for health and sports massage.

First two years of training are dedicated to basic education and last two years are geared towards special branches.

The Department of Sports Trainers encompasses two branches:

1. Training and Movement
   Chairman : Ali Kızılel, Ph.D.
   Faculty Members : F. Eralp, Ph.D.; M. Yüksel, Ph.D.; A. Bozdağan, Ph.D.; N. Suna, Ph.D.; I. Uluğ, Ph.D.; C. Arçanlı, F. Coşan; H. Sancakli; A. Demir; N. Köseahmetoğlu; Ö. Seden; A. Keten; İ. Gülmez; M. Kılıç; M. Arslan.

2. Athlete’s Health
   Chairman : Professor Osman Güven, M.D.
### UNDERGRADUATE PROGRAM

#### Freshman Year

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#### Sophomore Year

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## Senior Year

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"A" Group Elective Courses for Freshmen

1712 Basic Music Education
1203 Accompanying Movement With Music
1708 Basic Computers
1104 Basic Rhythm Education
1202 Sports Technology
1502 Youth Leadership
1501 Sports ethics
1404 Group Dynamics
1601 Introduction to Teaching
1402 Basic Law

"A" Group Elective Courses for Sophomores

2709 Using Computers In Sports
2208 Movement with Music
2207 Equipment and Field
2209 Folkloric Sports
2101 Preschool and Primary School PE
2713 Sports and Religion
2403 Ergonomics
2601 Teaching Methods
3402 Sports Law

"A" Group Elective Courses for Juniors

4404 Communication in Sports
4405 Public Relations
4105 Comparative PE and Sports
4107 Developing PE Programs
3103 Observing PE Classes in Schools
3201 Handicapped and Sports

"A" Group Elective Courses for Seniors

4302 Sports for Everyone
4407 Sports and Tourism
3502 Social Psychology
3304 Illness and Exercise
4603 Applied PE Teaching Methods
4410 Applied Sports Management
4402 Sports Marketing
4406 Personnel Management
"B" Group Elective Courses

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COURSE DESCRIPTIONS

1201 Anatomy: This course is designed to teach the fundamental of anatomy.

1204 Major Coaching Branch: Emphasizes planning, organization and teaching of coaching techniques in a particular sports branch chosen by the student.

1301 Physiology: A lecture course in elementary physiology covering the various systems of the body.

1302 Biochemistry: Lectures concerning the chemistry of biological molecules important in the living organism with emphasis on general principles.

2201 Kinesiology: Deals with mechanics of bodily movement.

2202 Anthropometry: Teaches systematic measurement of the human body leading to the discussion of body types, body compositions and their roles in sports.

2203 Evaluation of Aptitude: This course is designed to acquaint students with certain norms that enable recognition of a person's natural aptitude for certain types of sports.

2204 General Training Methods: This course aims to teach planning of degree of difficulty and duration of training periods.

2205 Sports Branches and Rules: This course is an introduction to the fundamentals of various sports branches.
2206 Recreation and Animation: A study of organization and management of activities that improve a person's physiologic, social and emotional state.

2207 Equipment and Field: Gives general knowledge of field measurements and necessary equipment for a variety of sports activities.

2209 Folkloric Sports: This course covers ancient and present day Folkloric sports.

2301 Sports Physiology: Emphasizes physiologic changes as a result of muscular activity.

2302 First Aid: This course considers the theory and practice of first aid in a variety of everyday situations.

3301 Sports Traumatology: This course deals with understanding of, protection from and treatment of athletic injuries.

3302 Doping and Ergonomic Aids: Deals with effects and side-effects of drugs declared illegal by the International Olympics Committee and tries to promote drug-free athletes.

3303 Nutrition: Physiologic needs for foodstuff and bio-elements are considered with emphasis on nutritional needs of athletes depending on sports branches.

3304 Illness and Exercise: Gives information on major illnesses and special exercises that can be used in the treatment of those illnesses as well as what types of exercise are appropriate and which ones can be dangerous in certain illnesses.

4301 Sports Rehabilitation: Designed to provide basic knowledge and skills that aid in the prevention and treatment of injuries common to athletics with emphasis on rehabilitative exercises that promote quick and full recovery following medical intervention.

4302 Sports for Everyone: Teaches planning and organization of training programs for all including the ill, pregnant and the handicapped.
VOCATIONAL SCHOOL OF DIVINITY

Director : Prof. Dr. İsmail ÇAKAN
Professors : İbrahim Kâfi DÖNMEZ, Ali BARDAKOĞLU,
Associate Professors : Yümnı SEZEN
Assistant Professors : Kasım TURHAN,
İsmail Safa ÜSTÜN,
Ali AKYÜZ
Instructor : Mehmet Nuri UYGUN,

Language of Instruction: Turkish

The School was founded in 1989. Its curriculum was specially designed to have a better qualified personnel in religious services and to improve quality of those who are already in the service.

The School of Divinity offers a two-year program and comprises only one department. The academic staff is supported by the academic staff of the Faculty of Divinity. 125 candidates are allowed to register each year.

The School is situated on the campus of the Faculty of Divinity, therefore, students have the opportunity of using the library and attending seminars, social activities, etc.
# First Year

**First Semester**
- Recitation of Qur'an I
- Arabic I
- Hadith I
- Principles of Islamic Religion (*Fiqh*) I
- Introduction to the Educational sciences
- *Kalam* I
- Contemporary Islamic World I
- Religion-Religion Education I
- Psychology of Education
- Methods of Teaching of Religion and Ethics I
- The History of Islam
- Western Languages I
- Turkish Music (unrestricted elective) I
- Calligraphy (unrestricted elective) I
- Atatürk Principles

**Second Semester**
- Recitation of Qur'an II
- Arabic II
- Hadith II
- Principles of Islamic Religion (*Fiqh*) II
- Contemporary Islamic World II
- Education of Religion
- Sociology of Education
- Methods of Teaching of Religion and Ethics II
- *Kalam* II
- Western Languages II
- History of Turkish Renovation II
- Turkish Music (unrestricted elective) II
- Calligraphy (unrestricted elective) II

# Second Year

**First Semester**
- Recitation of Qur'an III
- Commentary of Qur'an I
- Principles of Islamic Religion (*Fiqh*) III
- History of Turco-Islamic Thought
- Sociology and Psychology of Religious Services
- Eloquence I
- History of Religions I
- Sufi Music III
- Turkish I
- Assessment Techniques

**Second Semester**
- Recitation of Qur'an IV
- Commentary of Qur'an II
- Principles of Islamic Religion (*Fiqh*) IV
- History of Turco-Islamic Thought II
- The History of Turkish Education
- Eloquence II
- History of Religions II
- Sufi Music IV
- Turkish II
- Research Techniques

## COURSE DESCRIPTIONS

**Arabic I, II:** This course aims to give basic information on syntax and etymology of Arabic language and to make practice of these on both classical and modern texts, in addition to translation techniques from Arabic.

**Recitation of Qur'an I, II, III, IV:** This course stresses, both in theory and practice, on original pronunciation and recitation of Qur'an in accordance with authentic rules.
Hadith (Hadis) I, II: The course aims to help students to be familiar with this important source of Islamic creed. The second term assesses the impact of hadith upon human relations in the society.

Principles of Islamic Religions: This course is composed of definition of belief and its relation with deeds, belief in God and his attributes, belief in angels, sacred books, prophets, life after death and destiny.

Education of Religion I, II: Designed to help students to prepare themselves for the life after graduation and tries to equip with teachings of Islam and its tradition. Also provides historical development of religion education, its principles and psychological bases.

Methods of Teaching of Religion and Ethics I, II: Aims to improve the religion education in high schools by giving the methods of teaching of religious principles. This seminar is rather based on practice.

Commentary of Qor'an I, II: Examining the meaning and principles of Qor'an, while trying to disclose the intention of divine revelations as much as possible.

History of Religions I, II: Handling the methodology and characteristics of history and development of religions and also, includes the basic characteristics of Judaism and Christianity from their own sources, and comparative study of them with Islam.

Calligraphy (Hüsni Hat) I, II: This course provides the history of calligraphy along with the varieties of it, and helps students to improve their hand writing in Arabic, as well as encouraging those interested in calligraphy to take more steps in upper terms.

Contemporary Islamic World I, II: This course provides the modern social, political and economic history of contemporary Muslim states from 18th century, and examines the present situation of these countries.

Assessment Techniques: Provides the varieties of assessment, means of objective assessment techniques in education, characteristics of a good assessment.

Sociology of Education: Aims to give a general survey on education, culture, social change, family and education, society and education.

Elocution I, II: Providing definition, subject and aim of eloquence, as well as its history in Greeks, Romans, Arabs and the Ottomans. Meanwhile examining characteristics of a good speaker, and as varieties of eloquence, as religious, academics, etc.

History of Turco-Islamic Thought I, II: A general survey on theology, philosophy and sufism (emergence, stages etc.) as well as studying on such predominant personalities as Imam Maturidi, Ibn Sinâ, Muhyiddin ibn Arabî.
Principles of Islamic Religion -fīqḥ- I, II, III, IV: Topics related to worshipping, taḥarāt (cleanse), salāt (praying), fasting, pilgrimage and alms, in addition to methodology of fīqḥ, muamalāt (transactions), family law in general.

Sufi Music I, II, III, IV: Forms of sufi music such as mawlīt, azān, ʿayīn, etc., as well as its characteristics.

Turkish Music I, II (unrestricted elective): History of Turkish Music, and performing some samples.

Psychological Counseling and Guidance: Designed to direct students’ abilities in the right direction.

Psychology of Education: Providing the relations of psychology with education as well as usage of psychological data in the field of education.
VOCATIONAL SCHOOL OF HEALTH RELATED PROFESSIONS

Director : Prof. Dr. Şanda ÇALI
Assistant Director : Nursel ERDOĞAN

The Vocational School of Health Related Professions was founded on 10.4.1990.

Two departments, the Department of the "Tooth Prosthesis and the Department of Nursing were established and started education in the year of 1986. These two departments and the two newly founded departments, Departments of Medical Laboratory and Radiology joined in to form the Vocational School of Health Related Professions. In 1990, one year later according to a decision of the Higher Education Council another new department, the Department of Pathology was founded within the organisation of the School.

Graduates of this school can find jobs in laboratories in private or state hospitals or in Coroner Institutions as technicians.

DEPARTMENT OF TOOTH: PROSTHESIS

Head of Department : Prof. Dr. Sungur GÜVENER
Professors : İlhan ÇUHDAROĞLU, Ayla ARIKAN, Turan PIŞKİN, Şanda ÇALI, Kaya ENERGİN, Ergene BUKET,
Associate Professors : Hüya BAYKAL, Kerem ARAS
Assistant Professors : Göktürk İLBAY, Sevcan İLBAY
Instructors : Gazi ZEYTUN, Dr. Zafer KAYA, Nursel SEZER, Fazma Nur YILMAZ, Zeki ŞEN, Zehra KARABURÇAK, Zeynep KURDAŞ

Language of Instruction: Turkish

The Department of Tooth Prosthesis aims to offer a course of study which will equip the students with problem solving and innovative skills necessary to be fully helpful to the dentists.

To achieve this objective, the students are provided with a number of theoretical and practical courses during which they learn how to make nume-
rous kinds of dentures and get experienced in making them in the first year. At the end of this first year, the students have to join a one month Practise Program to review and refreshen up their knowledge.

In the second year of the study, the students help the dentistry students in their laboratory works. Through this, they learn how to work with a dentist.

**PROGRAM IN TOOTH PROTHESIS**

**First Year**

<table>
<thead>
<tr>
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<th>Second Semester</th>
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<td>Fixed Dentures I</td>
<td>Fixed Dentures II</td>
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<tr>
<td>Morphology I</td>
<td>Removable Dentures II</td>
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<tr>
<td>Anatomy</td>
<td>Atatürk Principles II</td>
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<td>Histology</td>
<td>Turkish II</td>
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<td>Microbiology</td>
<td>Physical Ed./Art. II</td>
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<tr>
<td>Removable Dentures</td>
<td>Foreign Language</td>
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<tr>
<td>Atatürk Principles I</td>
<td>Dental Materials II</td>
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<td>Hygiene</td>
<td>Technical Drawing II</td>
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<td>Physiology</td>
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<td>Equipment</td>
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<td>Turkish I</td>
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<td>Physical Ed./Art. I</td>
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<tr>
<td>Dental Materials I</td>
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<tr>
<td>Technical Drawing I</td>
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<td>Public Health</td>
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**Second Year**

<table>
<thead>
<tr>
<th>First Semester</th>
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<tbody>
<tr>
<td>Ceramics in Dentistry I</td>
<td>Ceramics in Dentistry II</td>
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<td>Fixed Dentures III</td>
<td>Fixed Dentures IV</td>
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<tr>
<td>Removable Dentures III</td>
<td>Maxillo-Facial Surgery</td>
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<tr>
<td>Foreign Language II</td>
<td>Demovable Dentures IV</td>
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<tr>
<td>Orthodontics I</td>
<td>Psychology-Deontology</td>
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<td></td>
<td>Foreign Language III</td>
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<td></td>
<td>Orthodontics II</td>
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</tbody>
</table>
COURSE DESCRIPTIONS

Fixed Dentures: Students are so equipped that they can do all the work about crowns and bridges once the dentist prepares the tooth or the teeth.

Removable Dentures: This course is given in two sections: Removable Total Dentures and Removable Partial Dentures.

Dental Materials: Students learn the characteristics of the materials which they will use in the laboratory.

Morphology: The aim of this course is to teach the students the morphology of the teeth. Students make teeth out of soap, wax, chalk, etc.

Equipment: Students are provided with knowledge so that they can use the laboratory equipment in a proper and useful way.

Public Health: General principles in public health, basic health organization, international standards, ecology and environmental health, family planning, preventive medicine, health education.

DEPARTMENT OF RADIOLOGY

Head of Department : Prof. Dr. Nevzat GÜRMEN
Professors : Beyazit ÇIRAKOĞLU, Beki KAN, Ahmet L. ORKAN
Associate Professors : Erdal ARİSAN, Safiye ÇAVDAR, Berrak YEĞEN, Seçil AKSAYAN
Assistant Professors : Turgut TUROĞLU, Nihal SÖKMEN, Fatma Eti ASLAN, Tuğrul BİLEN, Nermin OLGUN
Instructors : Nursel ARDOĞAN, Nuran AKYURT, Dr. Serap SEZER, Zerrin ÖZOKUTUCU, İliter GÜNLEY

Language of Instruction: Turkish

The aim of this department is to equip the students with the knowledge to achieve the radiologic examinations and to teach how to work in the radiology department. Technologists who complete this program, will be able to do the all diagnostic radiologic studies. To achieve this aim, students are provided with a number of theoretical and practical courses. Education period is two years. In the first year, students receive lectures on basic medical sciences, fundamentals of radiologic examination techniques and principles of radiologic imaging techniques. In the second year of the education, students attend practical courses in the Department of Radiology at the Marma-
ra University Hospital. At the end of the course, students gain full experience as radiology technologists.

**PROGRAM IN RADIOLOGY**

**First Year**

<table>
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<th>First Semester</th>
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<td>Radiologic Examination Techniques II</td>
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<tr>
<td>Medical Imaging Techniques</td>
<td>Physics of Diagnostic Radiology</td>
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<tr>
<td>Radiologic Examination Techniques I</td>
<td>X-Ray Machine and Equipment</td>
</tr>
<tr>
<td>Radiologic Anatomy</td>
<td>Dark Room Techniques</td>
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<tr>
<td>Anatomy</td>
<td>Radiation Protection Procedures</td>
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<tr>
<td>Physiology</td>
<td>Pharmacology of the Contrast Media</td>
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<tr>
<td>Basic Chemistry</td>
<td>Hygiene</td>
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<tr>
<td>Physics</td>
<td>Turkish II</td>
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<tr>
<td>Hospital Administration</td>
<td>Physical Ed./Art.</td>
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<tr>
<td>Biology and Genetic</td>
<td>Foreign Language II</td>
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<tr>
<td>Turkish I</td>
<td>Atatürk Principles II</td>
</tr>
<tr>
<td>Physical Ed./Art.</td>
<td>Foreign Language I</td>
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<tr>
<td>Foreign Language</td>
<td>Atatürk Principles I</td>
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</table>

**Second Year**

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>Basic Radioterapy I</td>
<td>Basic Radioterapy II</td>
</tr>
<tr>
<td>Emergency Radiology</td>
<td>Radiobiology and Nuclear Medicine</td>
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<tr>
<td>Radiobiology and Nuclear Medicine</td>
<td>Digital Radiology II</td>
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<tr>
<td>Digital Radiology I</td>
<td>Biostatistic</td>
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<tr>
<td>Fundamentals of sterilization</td>
<td>Computer Science</td>
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<tr>
<td>Computer Language</td>
<td>Foreign Language</td>
</tr>
<tr>
<td>Practical Courses I</td>
<td>Practical Courses II</td>
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<tr>
<td></td>
<td>Advanced Techniques in Radiology</td>
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</tbody>
</table>

**COURSE DESCRIPTIONS**

**Medical Imaging Techniques:** Introduction to the medical imaging techniques, Characteristics of the radiologic image, Roentgenography, Mammography, Computed tomography, Angiography and DSA, Ultrasonography, Magnetic Resonance Imaging, Nuclear medicine.

**Radiologic Anatomy:** Radiologic anatomy of the upper extremity, lower extremity, cranium, spine, abdomen and chest. Sectional anatomy, vascular anatomy.
Radiologic Examination Techniques-I: Introduction to the direct conventional radiologic examination techniques, fundamentals of direct radiologic examination techniques, direct conventional radiologic examination techniques of the upper extremity, lower extremity, cranium, spine, abdomen and chest.

Radiologic Examination Techniques-II: Introduction to the conventional radiologic examination techniques which are used contrast media Radiologic examination techniques of the GI system, Radiologic examination techniques of the genitourinary system, Special radiologic examination techniques such as myelography and arthrography, Angiography.

Medical and Radiologic Terminology: Medical and radiologic terminology which are used frequently and their meanings.


Dark Room Techniques and Radiographic Film Processing: Design of the dark room, processing chemistry, automatic processing, types of radiographic film, quality assurance, artifacts.

The X-Ray Machine and Equipment: Characteristics of X-ray machine, X-ray tubes, high voltage section, operating console.

Basic Radiotherapy: Introduction to radiotherapy, early effects of radiation, late effects of radiation, radiotherapy planning.


Radiobiology and Nuclear Medicine: Introduction to the radiobiology, fundamental principles of radiobiology, molecular and cellular radiobiology, radiopharmaceuticals, nuclear medicine equipment.

Digital Radiology: Introduction to computer science, computer hardware, computer software, digital imaging, DSA, CT, MRI, picture archiving and communication system.

Emergency Radiology: Principles of emergency radiology, skeletal trauma, cranial trauma, chest trauma, abdominal trauma, acute abdomen.

Advanced Techniques in Radiology: Computerized tomograph (CT) principals and Clinical Applications, Ultrasound (US) principals and Clinical Applications, magnetic resonance imaging (MRI) principles and clinical applications, Digital Subtraction angiography (DSA) principals and applications.
DEPARTMENT OF PATHOLOGY

Head of Department : Prof. Dr. Sevgi KÜLLÜ
Professors : Beyazıt ÇIRAKOĞLU, Aydın SAV, Beki KAN
Associate Professors : Safiye ÇAVDAR, Tülay TECİMER
                    Erdal ARİSAN, İmer OKAR
Assistant Professors : Rengin AHİSKALI, Nihal SÖKMEN
Instructors : Gülşün EKİÇİOĞLU, Nursel ERDOĞAN,
              Zerrin ÖZOKUTUCU, Dr. Serap SEZER
              Fulya ÇAKALOĞLU

Language of Instruction: Turkish

The main aim of this department is to train pathology laboratory technicians and cytotechnicians who serve in routine histological and cytological preparatory work of pathology. The graduates also gain competence to screen gynecologic and nongynecologic smears.

The education program lasting two years consists of theoretical and practical courses.

PROGRAM IN PATHOLOGY

First Year

First Semester
Hospital Administration
Anatomy
Physiology
Histology
General Histotechnology
Atatürk Principles I
Turkish I
Physical Ed./Art. I
Foreign Language I
Physics
General Chemistry

Second Semester
General Histotechnology
Medical Biology
Organic Chemistry
Medical Documentation
Atatürk Principles II
Turkish II
Physical Ed./Art. II
Foreign Language II

Second Year

First Semester
Biostatistic
Knowledge of the Computer
Private Histochemistry Techniques I
Private Siotechnology I
Foreign Language III

Second Semester
Private Histochemistry Techniques II
Private Siotechnology II
Foreign Language IV
Practical Program
COURSE DESCRIPTIONS

Histotechnology: This program is designed to provide a basic knowledge and practice of preparatory, fixation and staining procedures of biopsy specimens.

Cytotechnology: This program is designed to provide a basic knowledge and practice of preparation and staining procedures of cytologic specimens including fine needle aspirations. Principles in the evaluation of cellular samples and practical sessions are also given. Second year: Students are trained in conventional histochemistry and thought principles of screening in specialized subject of cytopathology.

Anatomy: Terminology of anatomy, bones and muscles, the skull, cardiovascular system, digestive system, neuroanatomy.

Physiology: Introduction to human physiology, excitable cells and bioelectric potentials, locomotor system, nervous system, blood, cardiovascular system, respiratory system, gastro-intestinal system, renal physiology, endocrine system, sensory organs, male genital system, female genital system.

Histology: It is a basic course of cell and tissue biology. Theoretical courses provide a general tissue histology knowledge. Tissue specimens are investigated by students for practical purpose.

Medical Biology: Cell and organelles, energy metabolism, nucleic acids, genetic control mechanisms, mutations, bacterial structure and genetics, virus structure and genetics, immunology.


Medical Documentation: Principles of medical documentation, patient files, use of computers in documentation.

Physics: The causes of motion, work, energy, the properties of liquids, the properties of gases, pressure, internal energy, heat and temperature, the effects of heat energy, introduction of electricity of magnetism, wave motion.

General Pathology: The aim of the course is to give general knowledge on all kinds of all diseases, to compare, to check, to understand all organs, all reasons, all functions.

General Chemistry: Chemical calculations, atomic structure, chemical bonding, chemical equations, gases, solutions, chemical kinetics and chemical equilibrium, acids and bases, nuclear chemistry and radioactivity.

Biostatistics: General principles of statistics, statistics in Health Sciences, Data acquisition and analysis.
DEPARTMENT OF MEDICAL LABORATORY

Head of Department : Prof. Dr. Süha YALÇIN

Professors : Yavuz TAGA, Beyazit ÇIRAKOĞLU,
Beki KAN, Nesrin ÖZER, Şanda ÇALI

Associate Professors : Berrak YEĞEN, Güner SÖYLETÜR,
Erdal ARISAN, İmer OKAR,

Assistant Professors : Nihal SÖKMEN, Dumrul GÜLEN,
Nermin OLGUN, Osman Ziya SAYHAN

Instructors : Nursel ERDOĞAL, Zerrin ÖZOKUTUCU,
Dr. Serap SEZER; Önder ŞİRİKÇİ

Language of Instruction: Turkish

The students are given a number of theoretical and practical courses. In the first year they learn to handle instrumental analyses as well as General and Medical Biology, General Chemistry and Organic Chemistry.

At the end of the first year the students have to attend a Practical Program to review and refreshen up their knowledge.

In the second year they are taught the major courses (Anatomy, Histology, Physiology, Microbiology, Biochemistry).

In the second semester they take Clinical Biochemistry, Clinical Microbiology, Hematology as well as their practical applications.

At the end of the second year they attend a one month practical program again.

PROGRAM in MEDICAL LABORATORY

First Year

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<thead>
<tr>
<th>First Semester</th>
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<tr>
<td>General Biology</td>
<td>Medical Biology</td>
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<tr>
<td>General Chemistry</td>
<td>Organic Chemistry</td>
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<tr>
<td>Mathematics</td>
<td>Biostatistic</td>
</tr>
<tr>
<td>Physics</td>
<td>Biophysics</td>
</tr>
<tr>
<td>Hospital Administration</td>
<td>Medical Documentation</td>
</tr>
<tr>
<td>Atatürk Principles</td>
<td>Atatürk Principles</td>
</tr>
<tr>
<td>Turkish I</td>
<td>Turkish II</td>
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<tr>
<td>Physical Ed./Art. I</td>
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<tr>
<td>Foreign Language I</td>
<td>Foreign Language II</td>
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<tr>
<td>Practical Program</td>
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Second Year

**First Semester**
- Histology
- Physiology
- Microbiology
- Biochemistry
- Anatomy
- Public Health
- Foreign Language III

**Second Semester**
- Clinical Microbiology
- Clinical Biochemistry
- Hematology
- Practical Program

**COURSE DESCRIPTIONS**

**Instrumentation:** General laboratory techniques, chemicals/laboratory supplies, centrifuges/mixers and homogenizers, Analytical procedures and instrumentation, Automation in clinical laboratory.

**General Biology:** Cell structure and organelles, photosynthesis, glycolysis, energy, respiratory system, gastrointestinal system, circulatory system.

**General Chemistry:** Chemical calculations, atomic structure, chemical bonding, chemical equations, gases, solutions, chemical kinetics and chemical equilibrium, acids and bases, nuclear chemistry and radioactivity.

**Mathematics:** Second order equations, factorial, permutation, combination, logarithmic equations.

**Physics:** The causes of motion, work, energy, the properties of liquids, the properties of gases, pressure, internal energy, heat and temperature, the effects of heat energy, introduction of electricity of magnetism, wave motion.

**Medical Biology:** Cell and organelles, energy metabolism, nucleic acids, genetic control mechanisms, mutations, bacterial structure and genetics, virus structure and genetics, immunology.

**Organic Chemistry:** Hydrocarbons, Alcohols and Ethers, Corbonyl Compounds, carboxylic acids and esters, carbohydrates, amines and amides, amino acids, aromatic compounds.

**Biostatistics:** General principles of statistics, statistics in Health Sciences, Data acquisition and analysis.

**Biophysics:** Pressure and circulatory system, molecular phenomena related to biological process, electrical and electronic instruments, bioelectricity, the physics of hearing, the physics of vision.
Medical Documentation: Principles of medical documentation, patient files, use of computers in documentation.

Physiology: Introduction to human physiology, excitable cells and bicelectric potentials, locomotor system, nervous system, blood, cardiovascular system, respiratory system, gastro-intestinal system, renal physiology, endocrine system, sensory organs, male genital system, female genital system.

Microbiology: Classification of microorganisms, bacteria, aerobic and anaerobic bacteria, fungi, viruses.

Biochemistry: Amino acids, proteins, carbohydrates, lipids and membranes, metabolism, hormones.

Anatomy: Terminology of anatomy, bones and muscles, the skull, cardiovascular system, digestive system, neuroanatomy.

Public Health: General principles in public medicine, basic health organization, international standards, ecology and environmental health, family planning, preventive medicine, health education.

Clinical Microbiology: Sterilization, culture methods, statins and staining methods, serological tests.

Clinical Biochemistry: Specimen collection and processing, analysis of proteins, diagnostic enzymology, diabetes mellitus, diagnostic tests for lipoproteins, endocrinological tests, electrolytes, renal function and tests, liver function and tests, gastric, pancreatic and intestinal, therapeutic drug monitoring.

Hematology: General principles, stem cell differentiation, anemias, coagulation system, blood banking.

Histology: It is a basic course for histological preparation techniques (light, fluorescence, electronmicroscopy, etc.) including a notion about cell and tissue biology. Different tissue preparation techniques and staining methods are instructed. Students prepare their own tissue specimens during laboratory sessions.
DEPARTMENT OF NURSING

Head of Department : Assist. Prof. Dr. Fatma Eti Aslan
Associate Professors : Hediye EKİZLER, Deniz ŞELİMEN,
                      Seçil AKSAYAN, Gülten ÖZALTIN.
Assistant Professors : Hatice PEK, Şule ALPAR, Nermin OLGUN,
                      Güber CİMÊTE, Nuran KÖMÜRCÜ,
                      Oya Nuran EMİROĞLU, Dumrul GÜLEN
Instructors : Aysel DURADEMİR, Özlem İŞİL, Nurdan TEKİN,
             Hatice ERYILMAZ, Zerrin YILDIRIM, Sema YAĞICI,
             Aynur DİNÇSEVER, Güller BEKTAŞ,
             Nimet Sevgi GENÇALP, Nursel ERDOĞAN,
             Zerrin ÖZOKUTUCU

Language of Instruction: Turkish

The department of Nursing is organized for providing formal instruction and training in nursing to graduates of Secondary Schools or equivalent Schools. The aim of the department is to provide the student to obtain the attitudes necessary for health care.

The curriculum in Nursing occupies two academic years. During the first year the students are given courses on basic and nursing sciences.

During the second year the students are given courses on nursing sciences.

After successfully completing the two year theoretical and practical training in Nursing the student is given a Diploma of Associated Degree in Nursing. They are eligible to serve in the field of nursing therapy and preventive health.
PROGRAM IN NURSING

First Year

First Semester
Anatomy
Physiology
Biochemistry
Microbiology
Interpersonal Communications in Nursing
Introduction to Psychology
Nursing History and Deontology
Fundamentals of Nursing
Turkish I
Foreign Language I
Physical Ed./Art. I

Second Semester
Pathology
Pharmacology
Infections Diseases Nursing
Nutrition
Medical Nursing
Surgical Nursing
Turkish II
Foreign Language II
Physical Ed./Art. II

Second Year

First Semester
Obstetrics and Gynecologic Nursing
Pediatric Nursing
Health Education
First Aid and Disaster Nursing
Foreign Language III

Second Semester
Psychiatric Nursing
Community Health Nursing
Nursing Administration
Biostatistics and Epidemiology
Foreign Language IV

COURSE DESCRIPTION

Fundamentals of Nursing: In this course the rules of basic nursing techniques and principles are being studied and demonstrated. The aim of the course is to help the students to acquire the knowledge, skill and attitudes of the related lectures, classroom demonstrations and clinical experiences under the guidance of the instructors.

Intrapersonal Communications in Nursing: This course analyses the nurse-patient interaction and the dynamic factors in it.

Medical Nursing: This course provides theoretical knowledge and practical skill about medical diseases and also preventive aspects, diagnostic processes and principles of nursing care.

Surgical Nursing: This course gives knowledge about the basic principles of surgery, surgical diseases, operations and related nursing care.

Obstetrics and Gynaecological Nursing: This course focuses on pregnancy and the principles of basic concepts of nursing in obstetrics and gynaecology in relation to maintenance of health.
Pediatric Nursing: This course provides the effective factors of child health, diseases and nursing care.

Infectious Diseases Nursing: Diagnosis, characteristics and methods of control of the most commonly seen infectious diseases in Turkey and nursing care are given in this course.

Psychiatric Nursing: This course analyses abnormal human behavior and provides knowledge of psychiatric diseases and nursing interventions.

Nursing Administration: This course focuses on the principles of administration and developing abilities in leadership.

Nursing History and Deontology: Historical background of nursing in Turkey up to the present and the comparison of the development of nursing in other countries are studied.

First Aid Disaster Nursing: This course gives some knowledge and skills in relation to immediate, and post accidental interventions to save lives.

Community Health Nursing: Maternal and child health, geriatric nursing worker health in Industry, mental and school health are instructed by this course. Applications of all the above are made by home visiting.
VOCATIONAL SCHOOL OF SOCIAL STUDIES

Director : Prof. Dr. Osman ALTUĞ
Professors : Orhan IŞCAN, Jale AKMEL, Gülten DEMİR
Assistant Professors : Emin ZEYTİNOĞLU, Münir ŞAKRAK, Hanife AYBOĞA, Nalan GÜREL, Selahattin DEMİRÇİ, Ayten ERSOY, Asuman YALÇIN, Füsun ALP, Özcan UNUTKAN,
Instructors : Muzaffer OKUTKAN, Gülbahar GÖRAL, Rabia YARGIÇ, M. Dahir YARGIÇ, Filiz ÇAKIR, Günner BERK, Necla TEZEL, Şeref TÜR, Mert UYDACI, Firuzan NAKİPOĞLU, Hüseyin ŞENYIL, Sezai DUMANİNOĞLU, Recep ÖKTEM, Yusuf KAÇAR, H. Oktay DEMİREL, Arzu ÖZKALELİ, Kadir TINGIROĞLU, Nesrin YILDIRIM, Muharrem SAMUR, Nuray ERGÜL, Hülya BARAN, Sinan ASLAN, Burak ARZOVA, İclal ATTILA, Mehmet MELEMEN, Yasemin SUNER, Oya BALÇIK

Language of Instruction: Turkish

The Vocational School of Social Studies has a two-year program. The School started education and training in 1984-1985 academic year and has "Accounting" - "Sales Management" - "Ofise Management and Secretariat" - "Tourism and Hotel Management" - "Tourism Guidance" and "Foreign Trade" and "Banking" programs.

ACCOUNTING PROGRAM

This program is a two-year program. Some courses are the same with the other programs in the first year. In the second year students take related courses. There is no obligation of practice. The students are chosen by central examination system. The students who are in the first 10 percent are allowed to continue to the undergraduate program.
### First Year

**First Semester**
- Accounting I
- Introduction to Business
- Basic Law
- Introduction to Micro-Economics
- Turkish
- Atatürk Principles
- General Mathematics
- Commercial Mathematics
- Public Finance
- Foreign Language I

**Second Semester**
- Accounting II
- Business Administration and Organization
- Debts Law
- Labour Law
- Tax Law
- Introduction to Macroeconomics
- Statistics
- Correspondence Techniques
- Commercial Mathematics
- General Mathematics
- Social Security Law
- Foreign Language II

### Second Year

**First Semester**
- Cost Accounting
- Tax Accounting
- Commercial Law
- Criminal Law
- Foreign Trade Regime
- Bank Accounting
- Specialization Accounting
- Atatürk Principles
- Turkish
- Foreign Language II

**Second Semester**
- Management Accounting
- International Banking
- Corporate Finance
- Computer
- Organizational Behaviour
- Accounting Organization
- Auditing
- Accounting Standards
- Tax Auditing
- Law Structure
- Tax Applications
- Foreign Language IV
- Commercial Law
- Criminal Law
- Capital Market Applications and Accounting
- Foreign Trade Regime
SALES MANAGEMENT PROGRAM

Chairperson: Assist. Prof. Füsun ALP

This program is a two-year program. Some courses are the same with the other programs in the first year. In the second year, students take related courses. There is no obligation of practice.

<table>
<thead>
<tr>
<th>First Year</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td><strong>Second Semester</strong></td>
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<tr>
<td>Accounting I</td>
<td>Accounting II</td>
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<tr>
<td>Basic Law</td>
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<tr>
<td>Introduction to Business</td>
<td>Introduction to Macroeconomics</td>
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<td>Introduction to Micro-economics</td>
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<td>Principles of Marketing</td>
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<td>Commercial Mathematics</td>
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<td>Commercial Mathematics</td>
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<td>Atatürk Principles</td>
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<tr>
<td>Marketing Research</td>
<td>Tax Law</td>
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<td>Statistics</td>
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<tr>
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<td>Arts</td>
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<th>First Semester</th>
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<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td><strong>Second Semester</strong></td>
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<tr>
<td>Cost Accounting</td>
<td>Managerial Accounting</td>
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<tr>
<td>Commercial Law</td>
<td>Business Finance</td>
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<td>Criminal Law</td>
<td>Stock-Exchange</td>
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<td>International Marketing</td>
<td>Applications</td>
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<td>Foreign Trade Regime</td>
<td>Export Management</td>
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<td>Marketing Research</td>
<td>Basic Technology and Standardization</td>
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<td>Sales Management</td>
<td>International Banking</td>
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<td>Atatürk Principles</td>
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<td>Marketing Management</td>
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<td>Tax Law</td>
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<td>Marketing Policy</td>
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<td>Selling and Retailing</td>
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<td>Commercial Law</td>
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<td>Criminal Law</td>
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<td>International Marketing</td>
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<td>Foreign Languages</td>
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</tbody>
</table>

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OFFICE MANAGEMENT AND SECRETARIAT PROGRAM

Chairperson: Muzaffer OKUTKAN

This program is also two-year program. In the first and second years students take related courses. There is, a 60 day practice obligation. In the second semester of the second year, the students have to continue to practice for two working days in a week.

First Year

First Semester
Accounting I
Introduction to Business
Introduction to Micro-economics
Basic Law
Commercial Mathematics
Typing
Stenography
Secretariat
Commercial Sciaces and Documents
Foreign Languages
Office Foreign Language
Atatürk Principles
Turkish

Second Semester
Accounting II
Business Administration and Organization
Introduction to Macro-economics
Debts Law
Labour Law
Office Management
Correspondence Techniques
Commercial Mathematics
Typing
Stenography
Arts
Commercial Sciences and Documents
Foreign Languages
Office Foreign Language

Second Year

First Semester
Secretariat and Business Relations
Computer Practices
Filing
Commercial Law
Atatürk Principles
Criminal Law
Turkish Tax System
public Finance
Typing II
Stenography II
Office Foreign Language
Foreign Language
Turkish

Second Semester
Commercial Law
Typing
Stenography
Reporting
Labour Psychology
Public Management
Foreign Language
Office Foreign Language
Training
TOURISM AND HOTEL MANAGEMENT PROGRAM

Chairperson: Prof. Dr. Jale AKMEL

This program is a two-year program. In the first and second years mainly the related courses are taught. There is a 120 day practice obligation. At the end of the first and second years the students fulfill their practice obligation in the tourism sector.

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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</thead>
<tbody>
<tr>
<td>Tourism Economics I</td>
<td>Tourism Economics II</td>
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<tr>
<td>Research Methods and Reporting</td>
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<td>Archaeology</td>
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<tr>
<td>Accounting I</td>
<td>Tour Operators and Travel Agencies</td>
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<tr>
<td>Tour Operators and Travel Agencies</td>
<td>Tourism Geography</td>
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<tr>
<td>Introduction to Business</td>
<td>Turkish</td>
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<tr>
<td>Atatürk Principles</td>
<td>Tourism Seminars</td>
</tr>
<tr>
<td>Computer Applications and Statistics</td>
<td>Computer Applications and Statistics</td>
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<td>Tourism Seminars</td>
<td>Arts</td>
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<tr>
<td>Foreign Languages</td>
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<tr>
<td>Investment in Tourism</td>
<td>Investment in Tourism</td>
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<tr>
<td>Business</td>
<td>Business</td>
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<td>Training</td>
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<tr>
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<th>Second Semester</th>
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<tbody>
<tr>
<td>Accounting for Accommodation Enterprises</td>
<td>Tourism Sociology and Tourist</td>
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<tr>
<td>Tourist Guiding</td>
<td>Psychology</td>
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<tr>
<td>Tourism Seminars Enterprises Final</td>
<td>Housekeeping</td>
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<tr>
<td>Project</td>
<td>Tourism Resources and Environment</td>
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<tr>
<td>Food and Beverage Management Foreign</td>
<td>Protection</td>
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<tr>
<td>Languages</td>
<td>Marketing in Tourism</td>
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<td>Enterprises</td>
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<td>Cultural Values and Rules of Proper</td>
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<td>Behaviour</td>
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<td>Front Office Management</td>
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<td>Final Project</td>
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<td>Food and Beverage Management</td>
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<td>Tourism Seminars</td>
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<td>Accounting for Travel</td>
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<td>Agencies</td>
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<td>Investment in Tourism and Financial</td>
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<td>Management</td>
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<td>Training</td>
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<td>Foreign Languages</td>
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</tbody>
</table>
BANKING PROGRAM

This program is a two-year program. Some courses are the same with the other programs in the first year. In the second year, students take related courses. There is a 30 day practice obligation. The students who are in the first 10 percent are allowed to continue to the undergraduate program.

Accounting
Introduction to Business
Introduction to Law
Introduction to Banking
Atatürk Principles
Commercial Mathematics
General Mathematics
Micro Economics

Tourism Guiding Program

After a one-year English preparatory school the students attend a two-year program in Turkish.

First Year

First Semester
Tourist Guiding
Archaeology
Turkish Tourism Geography
Introduction to Tourism
Introduction to Business
Protection of Environment
Tourism Seminars
Turkish Seminars
Atatürk Principles
Scientific Research Methods

Second Semester
Tourist Guiding
Archaeology
Turkish Tourism Geography
Mithology
Introduction to Economics
Tourism Seminars
Foreign Languages
Turkish
Scientific Research Methods

Second Year

First Semester
Tourist Guiding
History of Arts
Tourist Guide Travel Agency Relations
History of Religions
First Arts
Flora-Arts

Second Semester
Tourist Guiding
History of Arts
Tourist Guide Hotel Relations
Tourism Sociology and Tourist Psychology
Tourism Law
Cultural Values and Rules of Proper Behaviour
FOREIGN TRADE PROGRAM

This program is a two-year program. Some courses are the same with the other programs in the first year. In the second year, students take related courses. During their education the students have to fulfill their 30 work days practice obligation. The students are chosen by central examination system. The students who are in the first 10 percent are allowed to continue to the undergraduate program.

First Year

First Semester
Accounting
Introduction to Business
Introduction to Law
Introduction to Foreign Trade
Atatürk Principles
Commercial Mathematics
General Mathematics
Micro Economics

Second Semester
Accounting II
Writing Techniques
Debt Law
Business Law
Micro Economics
Tax Law
Foreign Trade Transactions
Statistics
Business Administration and Organization
General Mathematics
Turkish
Arts
Foreign Languages

Second Year

First Semester
Insurance Transaction and Accounting
Foreign Exchange Law
Banking
Foreign Trade and Banking Techniques
Cost Accounting
Computer Operations
Foreign Transactions Accounting
International Economics
Atatürk Principles
Export Stimulation
Foreign Languages

Second Semester
Insurance Transaction and Accounting
Foreign Exchange Law
Banking
Foreign Trade and Banking Techniques
Cost Accounting
Computer Operations
Foreign Transactions Accounting
International Economics
Atatürk Principles
Export Stimulation
Foreign Languages
VOCATIONAL SCHOOL OF TECHNICAL STUDIES

Director: Prof. Dr. I. Mete DOĞRUER
Assistant Director: Assist. Prof. Leyla ULUSMAN
Lecturer: Fatih YALÇIN

Language of Instruction: Turkish

According to Higher Education Executive Committee’s decision dated Jan 23, 1991, The Vocational School of Technical Studies was established with the departments of Electric, Electronics and Computer, Textile and Ready-Made Garment and Printing, as a part of Marmara University.

The nucleus of the school was the Technical Programs Department with Electric, Industrial Electronics, Computer, Biomedical Equipment Technology, Ready-Made Garment Program, which started in 1988-1989 academic year.

The students receive a Technician Diploma at the end of two-school years.

AQUATIC PRODUCTS PROGRAM

Head of Department: Assoc. Prof. Dr. Merâl SOYLU
Faculty Members: Assist. Prof. Dr. Erhan SOYLU, Devrim MEMİŞ

Language of Instruction: Turkish

Turkey is a rich country in the view of water sources. Beneficial use of these water sources is very important for the people. Therefore, it is necessary to have technicians in the field of catching and breeding of aquatic products.

Aquatic Products Program aims to educate technicians for this sector.
COURSE OUTLINE

First Year

First Semester

General Biology
General Chemistry
Mathematics and Statistics
Introduction to Aquatic Products
Oceanography
Limnology
Ecology
Technical Drawing
Atatürk Principles
Turkish
Foreign Language

Second Semester

Water Chemistry
Computer
Aquatic Plants
Aquatic Invertebrates
Fish biology
Classification of Freshwater Fishes
Classification of Sea Fishes

Second Year

First Semester

Aquatic Products Regulation
Inland Water Fish Production
Fish Nutrition and Food Technology
Fish Diseases I
Fisheries Biology and Population Dynamics
Catching Equipments and Techniques
Aquarium Fishes and Production

Second Semester

Fish Diseases II
Processing Technology
Aquatic Invertebrates Production
Sea Fishes Production
Aquatic Products Economy
Water Pollution and Control
Foreign Language
Seminar

COURSE DESCRIPTIONS

General Biology: Includes general zoology and botany.

General Chemistry: Explains general organic and inorganic chemistry.

Mathematics and Statistics: Includes general mathematical and statistical methods.

Introduction to Aquatic Products: General definition of aquatic products.

Oceanography: Embraces all studies pertaining to the sea and integrates the knowledge gained in the marine sciences that deal with such subjects as the ocean boundaries and bottom topography, the physics and chemistry of sea water, the types of currents, and the many phases of marine biology.
Limnology: Explains the study of the physical, chemical, meteorologic and biologic aspects of fresh water.

Ecology: Explains the relationship between organisms and their environment.

Technical Drawing: Includes technical drawing methods.

Water Chemistry: The explanation of the structure of water body and the existence of water in the nature.

Computer: Explains the common methods of computer.

Aquatic Plants: The explanation of aquatic plants which have economic importance and their taxonomy.

Aquatic Invertebrates: The taxonomy of aquatic invertebrates.

Fish Biology: Concentrates on the taxonomy, morphology and anatomy of fishes.

Classification of Freshwater Fishes: The taxonomy of freshwater fishes.

Classification of Sea Fishes: The taxonomy of sea fishes.

Aquatic Products Regulation: Includes all aquatic products regulations.

Inland Water Fishes Production: The cultivation techniques of inland water fishes which have economic importance.

Fish Nutrition and Food Technology: The definition of foods and food rations for fish life.

Fish Diseases: Fish diseases, diagnosis and treatment.

Fisheries Biology and Population Dynamics: Explains the fisheries methods and the biological investigation of fish populations.

Catching Equipments and Techniques: The definition of catching equipments and techniques.

Aquarium Fishes and Production: Explains the production of aquarium fishes.

Processing Technology: Explains the processing techniques of fishes.

Aquatic Invertebrates Production: The explanation of aquatic invertebrates production methods.

Sea Fishes Production: The cultivation techniques of sea fishes which have economic importance.

Aquatic Products Economy: The definition of aquatic production economy.

Water Pollution and Control: The definition of pollutants and control methods.
BIOMEDICAL EQUIPMENT TECHNOLOGY PROGRAM

Language of Instruction: Turkish

Hospitals and other health care services use electronic equipments in their work. The medical equipments are very important tools for medical staff to examine and cure their patients. Many hospitals and health care services require biomedical electronic technicians to repair and maintain these equipments.

The aim of the department is to teach the basics of medical terminology; human physiology, electronics, biomedical instrumentation and equipments. The graduates can find jobs in the field of repair, maintenance and sales of biomedical equipment companies and in the department of maintenance and repair of hospitals.

COURSE OUTLINE

First Year

First Semester

Turkish Language I
Atatürk Principles I
Foreign Language I
Mathematics
Physics
Electronics I
Electrical Circuits
Electrical Circuits and Measuring Lab.
Biomedical Technology
Biophysics
Technical Drawing

Second Semester

Turkish Language II
Foreign Language II
Atatürk Principles II
Mathematics II
Electronics II
Biomedical Electronics I
Biochemistry
Logic Circuits I
Computer Education

Second Year

First Semester

Foreign Languages III
Biomedical Electronics II
General Medical Equipments
Biomedical Laboratory I
Computer Programming
Logic Circuits II
Physiology I
Electrical Machines & Lab.

Second Semester

Foreign Languages II
Biomedical Laboratory II
Biomedical Laboratory Equipments
Physiology II
Microprocessors
X-Ray Equipments
Final Project
COURSE DESCRIPTIONS

BCD 115 Biomedical Technology: Measurements of physical, chemical, biological and physiological variables. Classification of biomedical measurements and parameters. Electrodes, transducers, sensors, measurement of pressure, flow and other physiological variables. Recording technics.


BCD 312 Biomedical Electronics 2: Thyristor, triac, switching, temperature control, motor speed control, power supplies, switching mode power supplies, monitors. Incubators, otoc aves.

BCD 313 General Biomedical Instruments: Electrocardiography, Heart rate -pulserate, blood pressure measurements, bed-side monitors, Electroencephalography Electromyography, incubators, respiratory measurements, Trouble-shooting and maintenance.

BCD 313 Biomedical Laboratory Instruments: Clinical chemistry instrumentation, Ph-meters, blood cell counters, spectrophotometers and other lab equipments.

BCD 314 Biomedical Laboratory Instruments: Field practice in hospitals. Students have the opportunity to work on the related equipment taught in their courses.


BCD 2418 Biomedical Laboratory Instruments: Clinical chemistry instrumentation. Ph-meters, blood cell counters, spectrophotometers and other lab. equipments.
ELECTRIC PROGRAM

Head of Department : Prof. Dr. İrfan GÜNİ

Faculty Members : Lecturer İsmail TEMİZ, Asistant Selçuk ATİŞ

Language of Instruction: Turkish

The Electrical Department offers a program aiming to educate electric technicians for industry. The students are taught to improve their technical abilities.

First Year

First Semester

Turkish Language I
Atatürk Principles I
Foreign Language I
Mathematics I
Physics
Electric-Electronic Circuit Components
Technical Drafting
Electric Circuits
Electric Circuits and Measurement Laboratory
Computer Education
Physical Education
Fine Arts

Second Semester

Turkish Language II
Atatürk Principles II
Foreign Language II
Mathematics II
Electrical Installation Technique and Practice
Electrical Machinery
Electrical Machinery Laboratory
Computer Programming

Second Year

First Semester

Foreign Language III
Electrical Installation Technique and Practice
Electrical Machinery
Electrical Machinery Laboratory
Electronics
Electrical Plants

Second Semester

Foreign Language IV
Winding Technique and Practice
Energy Transmission and Distribution
Electrical Machinery Control Technique
Electrical Machinery Control Technique Laboratory
Electrical Networks
Graduation Project
COURSE DESCRIPTIONS

ELK 111 Electric-Electronics Circuit Components: Description of materials, types of materials, metal non-metal materials, conductors, insulator and semiconductors, description of circuit components, types of circuit components, power supplies, resistor, types, special resistors capacitors and types, coils and types, relays, diots, transistors, SCR's, triacs, diacs.

ELK 112 Technical Drafting: Introduction to technical components, the importance of technical drafting, technical drafting standards, usage of drafting instruments and principles of technical drafting.

ELK 113 Electric Circuits: Introduction to electric circuits, basic concepts, Ohm Law, Kirchoff Laws, Mesh analysis, Nodal analysis, star-delta transforms, superposition theorem, max power transfer theorem, magnetic field, electrical field, basic concepts of a.c. currents, examining a.c. circuits components, series, shunt and complex connections, correction of power factor.

ELK 114 Electrical Circuits and Measurement Laboratory: Description of measurement and measuring devices, classification of devices, classify analog measurement devices, current and voltage measurement techniques, faults of measurement devices and making experiments applying electrical laws.

ELK 115 Computer Education: Examining high level computer languages, introduction to BASIC programming, characteristics, basic input/output terminology, matrices, flow charts, mathematical functions.

ELK 211 Electric Installation Technique and Practice: Introduction to the materials used in electrotechnique, low voltage installation systems, electrical installation materials, announcement systems, bell installation, fire and burglar alert systems, TV antenna systems, lighting system information and lightning instruments, voltage drop calculation.

ELK 212 Electric Machines: Introduction to DC machines, inducing concept, structure of DC machines, armature reaction and comutation, DC generators and their characteristics, basic concepts of DC machines, introduction to transformers, transformer types, working principles, flux distribution and basic voltage equations.

ELK 213 Electrical Machinery Laboratory I: Examining characteristics of DC generators, starting DC machineries, measuring of transformer winding resistance, unloaded, short circuit and loaded working experiments.

ELK 214 Computer Programming: CPU, ALU, hardware of computers, programming principles, network conception, off-line/on-line systems, data storage, introduction to DOS, FAT, loading some data, formatting disk, examining MCAD and PW.
ELK 314 Electronics: Introduction to electronics, principles of electronics, transmission in conductor and semi-conductors, current carriers, transistors and diots and their equations, rectifying, FETs, MOSFETs and their characteristics, amplifiers.

ELK 315 Power Electronics: Introduction to power electronics, dynamic behaviours of transistors, triggering systems, cooling in semi-conductors, rectifiers and other power electronic components and circuits.

ELK 316 Electrical Plants: Introduction to energy technique, problems of energy technique, electrical economy, pure energy materials, structure of plants, steam plants, gas turbine plants, nuclear plants, diesel plants, hydro plants, electrical hardware of electrical plants, protection systems.

ELK 411 Winding Technique and Practice: Faults in electrical machines, winding calculation for induction motor, stator windings in induction motor, special winding types, torque and power changing, faults of armature and stator, trouble shooting and fixing of them, transformer calculation, single-phase stator winding calculation and practice, winding of special electrical machines and practice.

ELK 414 Energy Transmission and Distribution: Introduction to energy systems, classification of energy systems, transmission with A.C. and D.C., and comparison between two, the principles of transmission with A.C., calculation with units, lines, line parameters, network equivalents and power transmission.

ELK 412 Electrical Machine Control Technique: The control symbols and their usage, control components, examining A.C. and D.C. motor from point of view of control technique, starting-up methods, necessary calculation for starting by different methods and breaking systems.

ELK 413 Electrical Machine Control Technique Laboratory: Research on D.C. and A.C. machines from point of view of control technique and important subjects in controlling these machineries, experimenting starting-up methods and breaking systems.

ELK 415 Electrical Network: Setting networks, necessary equipments, determining network load, the principles of network calculation, network problem solution methods, network calculations, connection scheme of transformers station.
ELECTRONICS AND COMPUTER PROGRAM

Head of Department: Prof. Dr. Burhanettin CAN
Faculty Members: Lecturer Ayşe Omuz, Bahadir Bahadıroğlu,
İbrahim Özbek, Mehmet Tektaş, Ahmet Akbaş,
Assistant: Nesibe Korkmaz, Necla Tektaş, Uğur Kesen

Language of Instruction: Turkish

The Electronics and Computer Department offers a program aiming to educate electronics, biomedical and computer technicians for industry. The students are taught to improve their technical abilities.

ELECTRONICS PROGRAM

The object of the program is to train students for employment in the field of electronics. Training in the first year is designed to prepare students with a sound working knowledge of theory of electronics. In the second year the student completes more advanced courses with emphasis in the concentration area.

Laboratory work is also provided to familiarize the student with scientific principles and industry procedures.

The program prepares students to diagnose and analyze electromechanical problems and to translate them into functioning equipment.

Graduates are qualified for positions in manufacturing, testing, installing and maintaining electrical and electronic equipment. When working on research and development, the graduates may set up special environmental and performance tests for new products, design and inspect testing instruments to maintain precision.

First Year

First Semester

Turkish I
Atatürk Principles I
Foreign Languages I
Mathematics I
Physics
Technical Drawing
Electric and Electronic Materials
Electrical Circuits
Electrical Circuits and Measuring Lab.
Computer Education

Second Semester

Turkish II
Atatürk Principles II
Foreign Language V
Mathematics II
Electronics I
Logic Circuits I
Computer Programming
Electrical Machines and Lab.
<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>Foreign Language III</td>
<td>Foreign Language IV</td>
</tr>
<tr>
<td>Electronics-II</td>
<td>Visual Systems</td>
</tr>
<tr>
<td>Industrial Electronics</td>
<td>Telecommunications</td>
</tr>
<tr>
<td>Logic Circuits-II</td>
<td>Microprocessor</td>
</tr>
<tr>
<td>Digital Electronics</td>
<td>Final Project</td>
</tr>
</tbody>
</table>

**COURSE DESCRIPTIONS**


**ELT 211 Electronics I:** Characteristics of solid-state diodes and transistors. Transistor amplifiers, equivalent circuits, A.C. and D.C. circuit parameters. Transistor biasing, thermal stability. Characteristics of JFET and MOSFET's, JFET and MOSFET amplifiers. Industrial semiconductor circuit components.


**ELT 213 Logic Circuits:** Sequential logic circuits and their design. Counters Registers. Memory unit. Register transfer circuits. Processor unit. Control logic circuits.


**ELT 411 Visual Systems:** Image forming in television. Picture tube, image-orthicon and vidicon cameras. Standards of television. Telecasting channels. Video transmis-
sion. Channel selector, intermediate frequency, automatic gain control, video amplifier, audio amplifier, audio, synchronization and scanning circuits. Color television.


**ELT 412 Telecommunications:** Introduction to communication systems. Transmission lines. Noise analysis and effects. AM and FM modulation and demodulation. Single side-band technique. Pulse-code modulation and demodulation.

**ELT 414 Final Project:** Design and construction of an electronic equipment of device and preparation of all its manufacturing drawings.

**COMPUTER PROGRAM**

**Language of Instruction:** Turkish

When computers first came into use they were intended to be utilized in solving mathematical and engineering problems, but soon after it became clear that computers would be inseparable from finance, business and all other areas of human endeavor that involve the acquisition and processing for information.

The aim of the department is to teach the basics of computer science, the most widely used computer languages and the application of computers to industrial and commercial fields in Turkey today and in the future.

Students, who graduate with high performance, are provided with the chance of continuing their education in one of the undergraduate programs of the faculties of the University.

**First Year**

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<td>Turkish Language</td>
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<tr>
<td>Atatürk Principles</td>
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<tr>
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<td>Programming 3</td>
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<td>Introduction to Data Process</td>
<td>Programming 4</td>
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<td>Hardware</td>
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### Second Year

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<tr>
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<tr>
<td>Programming 5</td>
<td>Programming 6</td>
</tr>
<tr>
<td>Data BASE</td>
<td>Assembly Language and Applications</td>
</tr>
<tr>
<td>Numerical Methods</td>
<td>Computing at WORK</td>
</tr>
<tr>
<td>Desk Top Publishing</td>
<td>Numerical Analysis</td>
</tr>
<tr>
<td></td>
<td>Final Project</td>
</tr>
</tbody>
</table>

### COURSE DESCRIPTIONS

**Introduction to Data Processing:** Introduction to data processing and computers, introductory hardware, Boolean algebra, computer files, data collection and programming, file processing, software, introduction to system analysis, computer systems.

**Numerical Methods:** Finding roots of equations, interpolation and approximation, numerical integration of first order ordinary differential equations, matrices and Eigens value problem, solution of simultaneous linear equations and computer applications.

**Programming Language 2:** Introduction to programming concepts, structure and logical flow and COBOL programs, files and records concepts, basic COBOL statements, editing of data, simple and nested IF statements. Simple programming applications.

**Computer Hardware:** Boolean algebra, logic gates, binary representation, reserve polish notation, basic processor definitions, memory, coding system and error detection, data communications, complimentary arithmetic, addressing and addressing modes, levels of language and compiler philosophy, operating systems, a basic processor structure, peripheral controls, mini/mainframe philosophy and multiprocessors.

**Programming Language 3:** More advanced features of COBOL; PERFORM statement, single and multidimensional table handling; fundamental file processing concepts, sorting of files and accessing sequential and index-sequential files.

**Database:** Database system architecture, data independence storage structures, indexing techniques, data models, data sublanguages normalization, data submodel.

**Numerical Analysis:** Scope and steps of system analysis, detailed studies on the step of systems specification, presentation techniques.

**PASCAL:** Introduction to computers, problem solving techniques, algorithms and flowcharts; fundamentals of PASCAL, data types, arithmetic and logical expressions, control structures; input-output commands, formatting, arrays, applications related to the subjects.
Assembly Language and Applications: Review of binary and hexadecimal number systems, introduction to assembly language programming, advantages and disadvantages of high level languages, 8088 microprocessor system architecture, assembler facilities and features, the instruction set, system interface, assembly subroutine calls form high level languages, computer applications.

Computers in Management: Introduction to data processing and computers, information technology, use of mostly used package programs (word processing, data base, spreadsheet), and introductory BASIC language.

FORTRAN: Using FORTRAN function and subroutine programs formats, logical and character type data, multi dimensional arrays applications.

APPLIED TECHNOLOGY OF JEWELRY PROGRAM

Head of Department: Asist. Prof. Leyla Ulusman
Faculty Members: Lecturer Murat Gürses,
Assistant Orhan Yenihayat

Language of Instruction: Turkish

Applied Technology of Jewelry Art Program aims at educating skilled designers and producers to take part in planning, drawing and producing creative work in the branches of Industry of Jewelry.

First Year

First Semester

- Turkish Language
- Atatürk Principles
- Foreign Language
- Art History
- Introduction to Art
- Terminology of Art
- Metallic Chemistry
- Technology of Jewelry
- Jewelry Designing 1

Second Semester

- Turkish Language
- Atatürk Principles
- Foreign Language
- Introduction to Art
- Terminology of Art
- Technology of Jewelry
- Jewelry Designing 2
Second Year

First Semester

Foreign Language
Techniques of Jewelry Production
Applied Technology of Surface Designing
Shapening of Metals
Jewelry Designing 3

Second Semester

Foreign Language
Jewelry Designing 4
Applied Jewelry Art
Shapening of Metals

COURSE DESCRIPTIONS

Technology of Jewelry Art: Introduction to all the tools and equipment used in the production of jewelry.

Fundamental Principles of Jewelry Art: Students are skilled to be able to convey and reflect their own feelings, ideas and images by using their talents within the fundamental principles of art as theme composition and imagery.

Metallic Chemistry: Metallic Chemistry deals with metals found in nature in compounds and it gives knowledge about, how to obtain metals, alloys and also, how to group them according to their physical and chemical properties. These metals are used in everyday life and in technology.

Terminology of Jewelry Designing: The terminology used in the field is taught

History of Turkish Fine Arts and Analysis of Turkish Motifs: The history of Turkish Fine Arts from past to present. Basic formal and technical aspects of art are also discussed.

Techniques of Jewelry Production: Exploration of materials and techniques. Techniques used in the field.

Applied Technology of Surface Designing: Applied studies in surface designing. The process and technology are discussed.

Shapening of Metals: Applied studies on metals referring to their physical, and chemical properties.

Applied Jewelry Art: Applied studies on designing a piece of jewelry and producing that piece in the industry by using different techniques.

Art History: Studying the history of art such as painting, architecture, carving, designing and sculpture.
MECHANICS PROGRAM

Head of Department: Prof. Dr. İ. Mete Doğruer

Faculty Members: Lecturer Fatih Yalçın

Language of Instruction: Turkish

Machine department offers a two-year (four semesters) education program.

Courses are designed to develop the knowledge and capabilities of the students on Machines and Production Techniques. During the four semester period the students are given a wide range of theoretical and practical courses from Basic Chip Removal Principles to Computer Aided Manufacturing techniques.

First Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>Computer and Programming I</td>
<td>Mathematics II</td>
</tr>
<tr>
<td>Physics</td>
<td>Computer and Programming II</td>
</tr>
<tr>
<td>Mathematics I</td>
<td>Statics</td>
</tr>
<tr>
<td>Technical Drawing I</td>
<td>Technical Drawing II</td>
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<tr>
<td>Metrology</td>
<td>Quality Control</td>
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<tr>
<td>Materials I</td>
<td>Materials II</td>
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<tr>
<td>Lathe-Milling Machine</td>
<td>Lathe-Milling Machine</td>
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<tr>
<td>Technique and Application</td>
<td>Technique and Application</td>
</tr>
<tr>
<td>Turkish Language</td>
<td>Turkish Language</td>
</tr>
<tr>
<td>Atatürk Principles I</td>
<td>Atatürk Principles II</td>
</tr>
<tr>
<td>Foreign Language I</td>
<td>Foreign Language II</td>
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</tbody>
</table>

Second Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Aided Design</td>
<td>Computer Aided Design (CAD I)</td>
</tr>
<tr>
<td>Manufacturing (CAM I)</td>
<td>Jigs and Fixtures</td>
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<tr>
<td>Dynamics</td>
<td>Machine Elements</td>
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<tr>
<td>Jig Design</td>
<td>Grinding Technology and Application of CNC Machines</td>
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<tr>
<td>Hydraulics-Pneumatics</td>
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<tr>
<td>Strenght of Materials</td>
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<tr>
<td>Production Planning</td>
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<tr>
<td>Grinding Technology and Application of CNC Machines</td>
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<tr>
<td>Work Safety</td>
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<tr>
<td>Foreign Language III</td>
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</tbody>
</table>

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COURSE DESCRIPTIONS


MAK 114 Materials Science I: Types of materials, selection of materials, structure of materials, atomic bonds and atomic arrangements, crystal structures, crystal defect, atomic diffusion, phase diagrams and phase transformations, iron Fe C phase diagram, iron and steel production, steel standards, types of steel, cast iron.


MAK 211 Computer and Programming II: Advanced BASIC statements and functions. Subprograms. Sequential and Random files. Input, output and append modes of the files. BASIC program examples relating to different subjects and application of these programs.


MAK 214 Materials Science II: Low alloy and alloy steel, special steels diffusion, optical arithmetic properties of materials.

MAK 311 CAD I: System structure, selecting entities, indicating position, geometric modelling. Construction parameters (const, cords) entity creation (arc autoseg, circle, conic fillet, line, point, polygon, polyline, spline) entity editing (breach, section, trim/exit) entity manipulation, X-From- move/copy/join-c-array, delta, hix-rot, mirror, old-new, project rotate, scale) Detail drafting (Ar/wit, change, dimens, label, note, set, update, x-hatch) Display manipulation (axes, cursor, grd/snap levels, pan, redra, view, wports, zoom) Entity management (attrib, BX move, delete group, recall) Geometric analysis (verify, moment, perim) entity verification (verify, attrib, cord, disc, posting) file management (coal files, macros, part files, pattern files, plot files) plot print.


MAK 314 Hydraulics and Pneumatic: Understands elementary concepts in hydraulics and pneumatic. Such as; the units of pressure in general use and their relationship. The layout of a simple open-circuit hydraulic circuit showing the basic elements and also the layout of pneumatic. The properties of a hydraulic fluid. Viscosity, lubricity, chemical stability for hydraulics. Air line filters in pneumatic circuits.


MAK 317-414 Grinding Technique and Application of CNC Machines: Introduction to grinding and importance. The structure and standardization of the grinding wheels. Wheel inspection, mounting, balancing, dressing and storing.
ding fluids, cutting velocity and theory. Introduction to grinding machines and making grinding practices. Time calculations and safety rules for grinding. Demonstration of the different grinding methods. Methods of cutting tool hardening and calculations. Introduction to CNC Machines, adjusting the (absolute) reference point of the CNC machine, tool definition, tool path definition, approaching and leaving linear and circular (tool) paths, keyway milling, pocket milling, thread milling, boring, subprograms, DNC systems, parametric programing, using trigonometric functions, special operations on milling machines, toolpath definition on turret lathes, cutting speed feediat, dept applications on Heidentain and Sinumerik control units.


MAK 411 Computer-Aided Manufacturing: Numerical control, the beginnings of CAM; (Conventional numerical control, NC part programming, computer controls in NC) Industrial robots; (robot technology, robot applications group technology and processes planning), Computer-integrated production management systems, monitoring) computer processes control, computer-aided quality control, computer-integrated manufacturing; CAD/CAM implementation and the future of CAD/CAM.

MAK 413 Jigs and Fixtures: Introduction to fixtures and application areas jigs and their components. Location, clamping and positioning elements. Fixture types and components. Fixture for assembling, measuring-controlling and multifunctional procedures. Clamping errors and fixtures.

PRINTING PROGRAM

Head of Department: Assist. Prof. Dr. Mehmet OKTAV
Faculty Members: Assistant Ömer B. Zelzele

Language of Instruction: Turkish

The Department of Printing offers a complete array of programs based on the concepts needed in printing industry jobs.

The basic aim of this two-year program is to develop well qualified technicians needed in the printing industry in Turkey.

The printing program is based on the technical areas that are important for the printing industry. This program consists of three main branches; Press, Desktop Publishing and Reproduction and Color Separation. The first semester of printing courses cover the general concepts of the whole printing processes. These are supplemented by mathematics, chemistry and physics.

In the remaining three semesters of printing courses cover the intensive technical courses of the main branches of the printing department.

First Year

First Semester

- Turkish Language I
- Atatürk Principles
- Foreign Language I
- Physics I
- Mathematics I
- Chemistry
- Printing Fundamentals
- Reproduction and Color Separation Fundamentals
- Type Setting and Desktop Publishing Fundamentals
- Printing Terminology
- The Knowledge of Printing Materials

Second Semester

- Turkish Language II
- Atatürk Principles
- Foreign Language II
- Binding
- Type design and Typography
- Offset Printing Technology I
- Reproduction and Color Separation Technology I
- Desktop Publishing Technology I
Second Year

First Semester

Image Assembly and Imposition
Printing Estimating
Offset Printing Technology II
Reproduction and Color Separation Technology II
Desk top Publishing Technology II
Type setting and Desk top Publishing hardware
Printing Management
Photography

Second Semester

Printing press systems
Industrial Organisation and Cost Control
Quality Control in Graphic Arts
Graduation Project
Offset Printing Technology III
Reproduction and Color Separation Technology III
Desk top Publishing Technology III

COURSE DESCRIPTIONS

Chemistry: Chemical reactions, solutions, concentrations, photo chemical reactions, and silverhodies.

Type Design and Typography: All letters, numbers and marks in the alphabet are analysed in constructions. The basic type faces and the fundamentals of type design are given. The concepts of letter spacing, kerning, line spacing and word spacing are discussed and applied.

Printing Fundamentals: The focus of this course is to make clear how the image transfers from the plate to the paper. All printing systems are explained briefly and the running diagrams of each printing system are also given. In this course students have an opportunity to practise offset printing, screen printing and letter press systems in the laboratory.

Reproduction and Color Separation Fundamentals: In this course the fundamentals of black & white and color reproduction techniques are given. Kinds of originals, color theory, the specifications of reproduction films, cameras, contact copy and scanners are also given briefly. Students have an opportunity to take films in the laboratory.

Type Setting and Desk top Publishing Fundamentals: From hand composition to desk top publishing the technical evolution is given. Type setting techniques and desk top publishing systems are compared according to lay out qualities. During this course students learn a desk top publishing software on Macintosh computers.

Printing Terminology: All printing terms are explained and discussed. The aim of this course is to make clear printing terms in students' minds and make them ready to understand the other technical classes easily.

The Knowledge of Printing Materials: The kinds and the specifications of printing materials such as printing inks, papers and chemicals used in inks are explained. The production processes standards and norms of these materials are also given.
Binding: The steps of binding such as scoring, folding, collating, stitching, trimming and cutting are explained and applied in the laboratory. Students are also informed with contemporary book binding techniques.

Offset Printing Technology I: The definition of offset printing, kinds of offset presses and to examine them. Knowledge about materials used in offset printing, learning to expose an offset plate and mounting it on the machine, examining the adjustments on the machine and making the machine ready to press.

Reproduction and Color Separation Technology I: Learning kinds of original images, examining black & white continuous tone and line originals and taking their negatives and positives. Having knowledge about materials used during taking negatives and positives.

Desk top Publishing Technology I: Learning printers’ measurements such as the point, the pica and the em. Having knowledge about electronic composition systems and their functions. Studying on word processing softwares and taking layouts, making proof reads.

Image Assembly and Imposition: The kinds of imposition, drawing page folder, projection stripping systems, color and black and white imposition techniques, electronic stripping. Lecture and laboratory experiences.

Industrial Organisation and Cost Control: General definitions of as price and cost. Stock and stock controls in printing. Development and the use of production standarts and hourly rates are analyzed to determine their importance in the pricning structure of printed materials.

Printing Estimating: Plant accounting systems covered as a tool for improving production management decision. Topics include job cost, standard cost and analysis of various control techniques.

Offset Printing Technology II: Making ready the machine to press, the mounting operation of the plate and the blanket on the cylinders, dampering and ink rollers adjustments. The adjustment and the importance of the force between the cylinders. One color printing studies on the machine.

Reproduction and Color Separation Technology II: The specifications of continuous tone orginals. Kinds of contact screens, taking films by using contact screens and examining the results by using densitometer.

Desk top Publishing Technology II: Designing books and magazines by graphic design and word processing softwares, and taking lay outs. The specifications of laser printers and examining the layout qualities.

Photography: The evaluation of photography, introduction to optical elements in photography, exposing techniques, technical specifications of lenses and tools in photography.
Printing Press Systems: A course designed to explain the principles of the printing press systems such as letter press, lithography, gravure, screen printing and plexography and to represent the differences between them. Class lectures, demonstrations in printing companies.

Quality Control in Graphic Arts: The importance of quality control in printing. The conceptual aspect of quality and quality printing, defect detection. The management role in creating quality environment, densitometry for measurement, use of quality control devices for process control.

Graduation Project: Student selects and develops a study of his or her own design. It should be a research project and two or three students can share the same project.

Offset Printing Technology III: Printing four color jobs, use of control strips. Printing problems and trouble shootings. The examination of contemporary offset printing presses.

Reproduction and Color Separation Technology III: The concept of color separation, direct and indirect color separation. The specifications of materials used in color separation.

Desk top Publishing Technology III: Criticizing the operating systems, graphic design and word processing softwares. Preparing layouts by using more than one software.

Printing Management: Production steps of different types of jobs such as book production, brochures, package and newspaper. Analysing the cost step by step.

TELECOMMUNICATIONS PROGRAM

Language of Instruction: Turkish

Many telecommunication companies have been established in Istanbul. These companies need well skilled technicians. Telecommunication industry is developing in the world very fast. Recent developments in the digital communication and satellite communication require technician level staff to operate and repair equipments.

The aim of the department is to teach the basics of electronics, telecommunication and digital communication. The graduates of the program can work in the field of repair, maintenance and sales in telecommunication companies, also in other companies.
## First Year

### First Semester
- Turkish I
- Atatürk Principles I
- Foreign Language I
- Mathematics-I
- Hand Skills and Safety
- DC Circuit Analysis
- Electric and Electronic Drawing
- Digital Logic
- General Science I
- Computer Education

### Second Semester
- Turkish II
- Atatürk Principles II
- Foreign Language II
- Mathematics-II
- Electronics-I
- AC Circuit Analysis
- Computer Programming
- Digital Electronic
- Science II

## Second Year

### First Semester
- Foreign Language
- Electronics-II
- Digital Communications
- Telephone Switching Systems
- General Communications
- Microprocessors I
- Electronic Communications Programming I

### Second Semester
- Foreign Language
- Lines and Terminal Connections
- Telephone Communications Systems
- Antennas and Radio Propagations
- Fiber Optic and Satellite Communications
- Administration and Economy
- Microprocessors II
- Microwave Communications Programming II
- Data Communication Network

## COURSE DESCRIPTIONS

**DC Circuit Analysis:** Basic components and principles of electrical circuits; Kirchhoff's law, loop and multiterminal circuit elements. Formulation of state equations. Analysis of first and second order circuits.


**Digital Communications:** Systems of analog and digital. A/D, D/A converters. Pulse modulation PAM, PDM, PPM. Pulse code modulation PCM.

**Electronic Communications (Analog):** Active and passive filters. Transistors RF amplifier analysis and synthesis. Linear and exp. modulator and demodulator design.


Data Communications Network: Coding of analog information and data signals. Information theory, channel capacity, block and convolutional codes. Modulation types. Multilevel modulation. Bit, work and carrier synchronization.

Telephone Communications Systems: Time and frequency domain analysis of signals and systems. Transmission of information by orthogonal functions. Digital telephone technics. Connections between telephone exchanges and PCM.

Microwave Communications: Resonance, impedance transformation. HF and microwave transmission system. AM/FM transmission receivers.

TEXTILE AND READY-MADE GARMENT PROGRAM

Head of Department : Assoc. Prof. Dr. Mehmet Akalin
Faculty Members : Assist. Prof. Şebnem Yorbaşi
Lecturer Nurije Çevik İşgören

Language of Instruction: Turkish

The Ready-Made Garment Division offers a program aiming to educate ready-made garment technicians for industry. The students are taught to improve their technical abilities.
First Year

First Semester

- Turkish I
- Atatürk Principles I
- Foreign Language I
- Textile Mathematics I
- Yarn Technology
- Weaving Technology
- Finishing Technology
- General Ready-Made Garment Technology
- Anatomy
- Garment Materials
- Sewing Materials
- Garment Construction I
- Garment Making Machines I

Second Semester

- Turkish II
- Atatürk Principles II
- Foreign Language II
- Textile Mathematics II
- History of Garment
- Sewing Techniques II
- Garment Construction II
- Garment Making Machines II
- Ready-Made Garment Making Techniques
- Stylistics

Second Year

First Semester

- Foreign Language III
- Quality Control
- Ready Made Production and Factory Organization
- Work Time Analysis in Garment Making
- Principle of Fashion
- Textile Materials
- Textile Materials Analysis
- Knitting Techniques

Second Semester

- Foreign Language IV
- Project Work
- Project Work in Factories

COURSE DESCRIPTIONS

Haz 112, Haz 212 Sewing Techniques I-II: Sewing techniques are taught for different parts of the garment.

Haz 113, Haz 213 Garment Construction I-II: Construction of garment are taught with various methods for different parts.

Haz 114 Yarn Technology: Production of cotton, wool, synthetic and silk yarn are outlined and explained.

Haz 115 Weaving Technology: The principles of weaving and fabric construction techniques are taught.
Haz 116 Finishing Technology: Bleaching, desizing, dyeing and finishing techniques outlined and explained.

Haz 117 General Ready-Made Garment Technology: Ready-made garment industry together with the technology of garment making and principles of garment making are taught.

Haz 118 Human Anatomy: Human anatomy is studied in terms of garment making.

Haz 119 Garment Materials: Materials (collars, buttons, zips etc) necessary for garment making are outlined and explained.

Haz 120 Garment Making Machines I-II: All the machinery and parts used for garment making are taught.

Haz 214 History of Garment: History of garment making from ancient time up to today are outlined.

Haz 215 Stylistics: Drawing techniques for garment making, models and fashions.

Haz 216 Ready-Made Garment Making Techniques: Techniques used in garment making in terms of all production.

Haz 314 Quality Control: Quality control in production and product itself are outlined in textile manufacturing.

Haz 315 Ready Made Production and Factory Organization: Production and factory organization in all stages of garment making are investigated.

Haz 316 Work Time Analysis in Garment Making: Plan and analysis of work time in garment making. In stages or in whole production.

Haz 317 Principle of Fashion: Concept of fashion in whole spectrum of garment making is studied.

Haz 318 Knitting Techniques: Knitting systems and techniques are outlined and taught.

Haz 319 Textile Materials Analysis: Analysis of textile fibres and physical tests for fibres, yarns and fabrics.

Haz 320 Textile Materials: Investigating textile fibres in terms of their use in textile industry.
ZEYNEP KAMİL VOCATIONAL SCHOOL OF HEALTH RELATED PROFESSIONS

Director : Nuran KÖMÜRÇÜ
Assistant Directors : Güler CİMETE, Nimet Sevgi GENÇALP

MIDWIFERY PROGRAM

Head of Department : Nuran KÖMÜRÇÜ
Faculty Members : Güler CİMETE, Nimet Sevgi GENÇALP

Language of Instruction: Turkish

The department of Midwifery is organized for providing formal instruction and training Midwifery to graduates of Lycees or equivalent Schools. The aim of the department is to provide the student to obtain knowledge skills and necessary attitudes for mother and child health care.

The curriculum in Midwifery occupies two academic years. During the first year the students are given courses on basic and midwifery science.

During the second year the students are given courses on midwifery science.

After successfuly completing the two years, theoretical and practical training in midwifery the student is given a diploma of associated degree in Midwifery. They are eligible to serve in the field of midwifery therapy and preventive health.

**First Year**

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<thead>
<tr>
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<td>Pharmacology</td>
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<td>Physiology</td>
<td>Nutrition</td>
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<tr>
<td>Biochemistry</td>
<td>Interpersonal Communications</td>
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<tr>
<td>Microbiology</td>
<td>Medical and Surgical Disease and Care</td>
</tr>
<tr>
<td>Introduction to Psychology</td>
<td>Introduction to Obstetric and Gynecologic Midwifery</td>
</tr>
<tr>
<td>Fundamentals of Midwifery</td>
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<tr>
<td>Turkish I</td>
<td>Turkish II</td>
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<tr>
<td>Foreign Language I</td>
<td>Foreign Language II</td>
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<tr>
<td>Atatürk Principles I</td>
<td>Atatürk Principles II</td>
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</table>
Second Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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</thead>
<tbody>
<tr>
<td>First aid and Diseaster</td>
<td>Health Education</td>
</tr>
<tr>
<td>Infection Disease</td>
<td>Community Health Midwifery</td>
</tr>
<tr>
<td>Family Planning and Mother Health</td>
<td>Psychiatry</td>
</tr>
<tr>
<td>Child health and Disease and Care</td>
<td>Midwifery history and Deontology</td>
</tr>
<tr>
<td>Obstetric and Gynecologic Midwifery I</td>
<td>Obstetric and Gynecologic Midwifery II</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>Summer Practice</td>
</tr>
</tbody>
</table>

**COURSE DESCRIPTIONS**

**Fundamentals of Midwifery:** In this course, the rules of basic techniques and principles are being studied and demonstrated. The aim of the course is to help the students acquire the knowledge, skill and attitudes of the related lectures, classroom demonstrations and clinical experiences under the guidance of the instructors.

**Interpersonal Communications:** This course aims to analyze the midwife-person (patient) interaction and the dynamic factors in it.

**Medical and Surgical Disease and Care:** This course provides theoretical knowledge and practical skill about medical and surgical disease and also preventive aspects, diagnostic processes and principles, operations and related care.

**Introduction to Obstetric and Gynecologic Midwifery:** This course focuses on antenatal care, assessment and support during labor and delivery.

**Obstetric and Gynecologic Midwifery I-II:** This course focuses on women's health problems, health problems complicating pregnancy, postpartum care, complications of labor and delivery, maternity care, gynecologic disease and care of women.

**Child Health, Diseases and Care:** This course focuses on factors of child health, disease and care.

**Infection Diseases:** Diagnosis, characteristics and methods of control of the most commonly seen infectious diseases in Türkiye and their care are given by this course.

**Family Planning and Maternal Health:** This course focuses on all contraceptive methods and the situation of family planning in Türkiye.

**Community Health and Midwifery:** Maternal and child health care in the community. By home visiting, Midwife responsibilities in preventive health care are instructed by this course.
**Psychiatry:** This course analyses abnormal human behaviour and provides knowledge of psychiatric disease and interventions.

**First Aid Disaster:** This course gives some knowledge and skills in relation to immediate, and post accidental interventions to save lives.

**Health Education:** This course focuses health education methods, planning, communication, health behaviors, the concept of health and its meaning.

**Midwifery History and Deontology:** This course focuses historical background of midwifery, the situation of midwifery in Türkiye and midwifery values and the professional code.
IV. OTHER INSTITUTIONS

All university students of Turkish nationality have to take compulsory lectures on the Turkish Language, Atatürk Principles and the History of the Turkish Renovation, and choose an alternative from English, German, Arabic, French, Spanish, or Italian Language courses.

These institutions are directly under the supervision of the Rector in terms of administration, content and policy and thus form a very important part of the University’s infrastructure. The respective departments that provide the above mentioned courses are as follows:

DEPARTMENT OF ATATÜRK PRINCIPLES AND THE HISTORY OF THE TURKISH RENOVATION

Director: Prof. Dr. Cevdet KÜÇÜK

This institution aims to organize and facilitate the compulsory courses on Atatürk Principles and the History of the Turkish Renovation. The course material consists of lectures on concepts of renovation and Atatürk point of view of renovation. Evaluation of 19th century Ottoman Empire, First World War, Political, constitutional, regional, educational, cultural, social and economical renovations, the history of the establishment and the development of the Turkish Republic.

DEPARTMENT OF TURKISH LANGUAGE

Director: Prof. Dr. Emine GÜRSOY

This institution aims to organize and facilitate the compulsory lectures on Turkish Language for the students attending either the faculties or the vocational schools of the University. It also offers courses for the foreign students who are not proficient in Turkish.

DEPARTMENT OF FOREIGN LANGUAGES

Director: Prof. Dr. Nazan AKSOY
Head of the English Prep. Program: Nilgün ÖZEN
Head of the French Prep. Program: Arzu TAŞPINAR
Head of the German Prep. Program: Helmut DALLER, Ph.D.
This institution aims to organize and facilitate the foreign language programs which are taught in all faculties of the University.

For students who are accepted into programs where the teaching medium is in English, French or German, the department administers a Proficiency Examination in the relevant language. Those who are found proficient enter directly into the Freshman program. Those who are not yet proficient begin a one or two-year intensive series of language courses to upgrade their language proficiency to enable them to follow the relevant course material.

In these preparatory programs the skills of listening, writing, reading and speaking are taught. At the same time the Department of Foreign Languages operates as a service unit to the University offering optional English, French, German, Spanish, Italian and Arabic courses at all levels.

FOREIGN LANGUAGES DEPARTMENT

Teaching Staff

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<th>Aybars Akdağ</th>
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<tr>
<td>Ahmet Akgün</td>
<td>Saadet Akıncı</td>
<td>Vejdil Akyüz</td>
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V. RESEARCH CENTERS

RESEARCH CENTERS

Marmara University has recognized the importance of research and many of its staff are engaged in various projects. Every year hundreds of articles and many books are published, most of which by the Marmara University Press. Marmara University staff are involved in various sponsored research projects. Marmara University is also keen to enter into joint research projects with foreign institutions.

For the planning, execution and coordination of these research activities 23 Research Centers are established within the university.

- Atatürk's Principles and the History of the Turkish Renovation Research and Application Center
- Accountancy Research and Application Center
- Biological and Clinical Sciences Research and Application Center
- Business Administration Research and Application Center
- Criminal Law and Criminology Research and Application Center
- Environmental Problems Research and Application Center
- European Communities Research and Documentation Center
- Foreign Languages Research and Application Center
- Graphology Research and Application Center
- Health Care Policies and Systems Research Center
- International Economic Relations Research Center
- International Strategic Research Center
- International Textile Research and Practice Center
- Middle East and Islamic Countries Economic Research and Application Center
- Natural Plants and Islamic Water Products Research and Application Center
- New Technologies Research and Development Center
- Public Finance Research and Development Center
- Statistical and Econometrics Research Center
- Statistical and Quantitative Research and Application Center
- Technology Research and Application Center
- Traditional Handcraft and Design Research and Development Center
- Turkic Studies Research and Application Center
- Turkish Economy Research Center
- Women Labor Force Employment Research and Application Center.
MARMARA UNIVERSITY HOSPITAL

Director: Prof. Dr. Necmettin PAMİR (Academic)
          Mustafa KANARYA (Administrative)

The University Hospital serves as a research and application center for the Faculty of Medicine. The hospital facilities include an in-house clinical studies education center, neurological sciences and gastroenterology institute. Construction is underway to increase the 400-bed capacity to 750 and other services like an emergency ward, blood bank and nuclear medical center units will also be available. The first unit of a 600-bed hospital in Başibuyuk will be completed by 1996.