

**MEDICINE BACHELOR DEGREE PROGRAM INFORMATION**

<b>General Information</b>	<p>TOBB ETU Medical School was founded and enrolled first students in 2013. The main education language is Turkish, 30% of the classes are provided in English. TOBB ETU Medical School enrolls 40 students each year. The medical education is provided in 6 years by integrated teaching approach. The courses are provided During the phases 1, 2, and 3 teaching is provided in course committees configured in an organ system basis. Phases 4 and 5 are the clinical clerkship period, during which previously learned knowledge and skills are practiced and reinforced. While the first two phases focuses on normal structure and functioning of systems, third phase focuses on the development and progress mechanisms of pathological conditions. During the clinical stages provided in fourth and fifth phases students use previously learned knowledge and skills on real conditions to solve problems, to evaluate their gains of knowledge and attitudes, to use and create evidence, to advance their learnings. During the undergraduate internship provided on 6<sup>th</sup> year of their education, the interns are relatively independent and actively participate and take responsibility in patient care under the supervision of teaching staff and specialists. They are prepared to work autonomously, determine their area of improvements, and work on these.</p>
<b>Program Purpose</b>	<p>The education in TOBB ETU Medical School aims at graduating innovative physicians, who are sensitive to health problems in our country, embrace high personal and professional ethical standards, follow scientific developments in their area of expertise and contribute to them, implement modern diagnostic and therapeutic applications. TOBB ETU Medicine will attain this goal by means of an exemplary program supported by TOBB ETU's strong academic and modern technological infrastructure, by conducting research in collaboration with other disciplines, particularly engineering departments, and encouraging students to join these research projects.</p>
<b>Degree Earned</b>	<p>Medical Doctor</p>
<b>Level of Degree Earned</b>	<p>Bachelor's degree and master's degree</p>
<b>Requirements and Rules of the Degree Earned</b>	<p>Successfully completing the courses in Medical School education program and obtaining 360 ECTS credits are required for graduation.</p>
<b>Registration Admission Requirements</b>	<p>High school diploma and sufficient grade from national university admission exam are required for registration and admission to TOBB ETU Medical School.</p>
<b>Recognition of Prior Learning</b>	<p>Admission to medical school is conducted in accordance with Higher education council principles. Student admission to medical school contingents are done according to the results of the national university admission exam conducted by student selection and placement center (ÖSYM). Full-time education is provided in medical schools. In order to accept the admission for undergraduate transfer of students from other medical schools, applicant must be enrolled to an equivalent diploma program. The admission must be at earliest first term of 2nd year and at latest first term of 5th year, and there must be an opening in the class applied for. The applicant must have a sufficient level of English language knowledge specified by the University and able to document this. Moreover, the applicant must have a grade from the university admission exam conducted by ÖSYM which is not below the base point determined for medical schools for that year the applicant entered this exam and application must be in accordance with the principles set by Higher Education Council.</p>
<b>Examinations, Assessment and Grading</b>	<p>Attendance is essential for all courses in medical school. An end of committee exam is performed after each committee during the first, second and third phases. The type of the exam is decided by the phase coordinator in accordance with the characteristics of that committee. The final exam performed at the end of the education year covers all committees of that year. The final grade is calculated by adding 60% of weighted average of the committee exams' grades to 40% of the final exam. In order to be deemed successful and continue to an upper class, the final exam grade must be at least 50 and the calculated end of year grade must be at least 60. Students with 90 points for weighted average of the committee exams' grades may not take the final exam.</p> <p>During the first three years in addition to compulsory courses coded TIP, students select at least three elective courses one of which must be from another program. In order to successfully complete basic medical sciences level, students must get a passing grade at most one minus of these elective courses other than foreign language courses. The grades of these elective classes affects graduation degree.</p> <p>There is a end of stage exam at the end of each clinical stages during fourth and fifth year of education. In order to determine the grade students' work, achievement, behavior and social relations are considered. If the student fails one or more of the stages during fourth and fifth year, takes the exam again. The grade obtained from this exam is considered as the stage grade. If the student does not success this exam too, student is given the right to repeat the stage in accordance with the stage schedule. If the student does not complete the repeated stage successfully, then she does not repeat the stage again, but takes the first suitable end of stage exam in academic schedule. In order to be deemed successful, students must get at least 60 from end of stage exam or repeat exam. In order to continue to one upper class, student must successfully pass all stages of that year.</p> <p>During the internship, after working at every department, students are evaluated for inpatient and outpatient clinics, laboratory and field works, manner and behaviors suitable to a physician, attitudes toward work and duty schedule, preparation of patient files, preparation of patient related information and documents, relationships with patients, patients' relatives, other physicians and healthcare professionals, scientific activities, theoretical knowledge and skills and graded by the responsible academicians of that department. In order to be successful, students must get at least 60 points out of 100 from each stage. Interns must repeat the stages if they fail. In order to complete 6th year and graduate all internship stages must be completed successfully. The end of year grade is calculated by taking weighted average of all the grades obtained from stages.</p> <p>During the first three years of 6-year medical education, basic and clinical medical information is related to each other and integrated on the basis of organ systems. Course committees are organized as classes provided by different departments on the same subject. The first year of medical school has four course committees that are consecutive and complementary to each other. In the context of these course committees, comprehension with a holistic approach is achieved beginning from the structure-function relationship between basic molecules forming the organism, to structural and functional characteristics of more complex systems such as cell, tissue and organ. There are six course committees during the second year of medical school and one organ system's anatomic, histologic, biochemical and physiological characteristics are evaluated in each of these courses within the context of from structure to function. Following the second year, during which normal functioning is taught, third year with six course committees covers the pathological conditions that normal functioning is impaired, diseases and their mechanisms within the context of organ systems. There are practice courses along with theoretical courses, which students are encouraged to participate actively.</p> <p>In addition to basic medical courses, courses directly related to formation of physician identity and medical practices such as history of medicine and ethics, public health and good medical practices are also provided. Subjects such as communication skills, vocational skills, scientific research concept and information literacy, medical research and evidence based medicine, humanitarian sciences in medicine are covered within the context of good medical practices. Moreover, operation of the health system, medical laws and developing technologies are also planning to be covered during the first three years.</p> <p>Clinical stages are provided during the last three years of the medical education. Fourth year covers the "major stages" such as internal medicine including cardiology, infectious diseases, respiratory diseases, general surgery, pediatrics, gynecology and obstetrics, and forensic medicine and fifth year covers other clinical departments. During the 6th year of education, within the context of family medicine program called "internship" interns participate various medical practices performed in different clinics for 12 months.</p> <p>In addition to the compulsory courses summarized above, compulsory two foreign language classes, and elective classes from the medicine program and other programs are provided.</p>

<p><b>Teaching Style</b></p>	<p>During the first three years of 6-year medical education, basic and clinical medical information is related to each other and integrated on the basis of organ systems. Course committees are organized as classes provided by different departments on the same subject. The first year of medical school has four course committees that are consecutive and complementary to each other. In the context of these course committees, comprehension with a holistic approach is achieved beginning from the structure-function relationship between basic molecules forming the organism, to structural and functional characteristics of more complex systems such as cell, tissue and organ. There are six course committees during the second year of medical school and one organ system's anatomic, histologic, biochemical and physiological characteristics are evaluated in each of these courses within the context of from structure to function. Following the second year, during which normal functioning is taught, third year with six course committees covers the pathological conditions that normal functioning is impaired, diseases and their mechanisms within the context of organ systems. There are practice courses along with theoretical courses, which students are encouraged to participate actively.</p> <p>In addition to basic medical courses, courses directly related to formation of physician identity and medical practices such as history of medicine and ethics, public health and good medical practices are also provided. Subjects such as communication skills, vocational skills, scientific research concept and information literacy, medical research and evidence based medicine, humanitarian sciences in medicine are covered within the context of good medical practices. Moreover, operation of the health system, medical laws and developing technologies are also planning to be covered during the first three years.</p> <p>Clinical stages are provided during the last three years of the medical education. Fourth year covers the "major stages" such as internal medicine including cardiology, infectious diseases, respiratory diseases, general surgery, pediatrics, gynecology and obstetrics, and forensic medicine and fifth year covers other clinical departments. During the 6th year of education, within the context of family medicine program called "internship" interns participate various medical practices performed in different clinics for 12 months.</p> <p>In addition to the compulsory courses summarized above, compulsory two foreign language classes, and elective classes from the medicine program and other programs are provided.</p>
<p><b>Graduation Requirements</b></p>	<p>The ECTS credit equivalence of medical education program is a total of 360 credits. Students earn the right to graduate medical school after successfully completing the six year education. A temporary graduation certificate is provided to students who successfully completed the program and get the title of medical doctor for one time only. Graduates of the medical school receive their ministry of health certified diplomas after completing the compulsory duty defined by this ministry.</p>
<p><b>Occupational Profiles of Graduated-Employment Opportunities</b></p>	<p>There is a two year compulsory duty after the graduation of medical school. Medical school graduates work at primary care health services, public health units, state hospital emergency services and such healthcare providers in order to fulfil this duty following their assignment organized by Ministry of Health. If they enter and succeed in the examination for specialty in medicine that is held two times every year they select a specialty training in a university hospital or state education and training hospital and work as a resident medical doctor.</p>
<p><b>Transition to a Upper Degree</b></p>	<p>Graduates of medical school can apply for specialty in medicine or doctor of philosophy programs opened under basic, internal or surgical medical sciences.</p>





Program Competencies	
1	Obtains the knowledge on structures and process of metabolic functions to keep human body healthy. Demonstrates knowledge by explaining the aforementioned structures, mechanisms and processes.
2	Presents and defines the causes and progress of diseases, clinical signs and symptoms, and genetic, microbiologic, toxic, environmental, social and other factors that deteriorates or prevents the state of being healthy.
3	Has the following behavioral abilities to perform the job:
4	"Cognitive functions" such as collecting and evaluation of signs and symptoms, selection of appropriate method, evaluation of diagnostic interventions and tests, making a diagnose;
5	"Psychomotor functions" such as performing physical examination, diagnostic tests, and interventions;
6	"Attitudinal functions" such as providing sufficient care and respect to her patient.
7	Fulfills her skills and abilities obtained during her medical education at primary care by putting her patient in the center and in the framework of ethical principles and holistic view.
8	Performs all protective, diagnostic, curative and rehabilitative medical practices required at primary care for each age group in accordance with her medical education. Plans practices according to clinical priorities.
9	Being aware of the limits of her knowledge, consults other health professionals and institutions when necessitates.
10	Continuously develops and uses the knowledge skills and attitudes she has.
11	Bu ders kurulunda patoloji, tıbbi mikrobiyoloji ve parazitoloji, farmakoloji bilim alanlarının dersleri ile ilgili kliniklerin ve Tıp Eğitimi AD'nın beceri dersleri bulunmaktadır. Ders kurulu süresince; endokrin ve üreme sistemlerinde yer alan yapılarda farklı mekanizmalarla ortaya çıkan örnek hastalıkların oluş ve seyir mekanizmaları ele alınarak bu hastalıkların neden olduğu doku ve hücre düzeyindeki değişiklikler incelenmekte, laboratuvar bulguları gözden geçirilmekte, tedavide kullanılan ilaç grupları belenmekte, klinik tanının oluşturulması için gerekli klinik ve laboratuvar muayene yöntemlerini içeren temel klinik beceriler kazandırılmaya çalışılmaktadır. Bu ders kurulu izleyen yılda başlayacak klinik stajlarda yürütülecek hasta tanı, bakım, tedavi belirleme ve hasta yönetimi için gerekli biliş ve beceri temelini kazandırmayı amaçlamaktadır.
12	Bu ders kurulunun amacı insan vücudunun normal işleyişini ve hastalıklarda temel mekanizmaları kavramış öğrencilerin endokrin ve üreme sistemlerinde yer alan yapılarda izlenen enfeksiyöz, neoplastik, yapısal, dejeneratif ve genetik geçişli patolojilerin (1) nasıl adlandırıldıklarını bellemelerine, (2) yol açtıkları yakınmaların ve klinik belirti-bulguların neler olduklarını kavramalarına, (3) doku düzeyinde yol açtıkları değişiklikleri ayırt etmelerine, (4) tedavilerinde kullanılan farmakolojik ajanları öğrenmelerine yardımcı olmak için olanak yaratmaktır.
13	1. Toplumda sık görülen/model oluşturan endokrin hastalıkların tanı ve izleminde laboratuvar kullanımını tarif eder. 2. Toplumda sık görülen/model oluşturan endokrin hastalıkların belirti ve bulgularını sayar, klinik görünümünü tarif eder, tedavide kullanılan ajanları sayar. 3. Cinsel yolla bulaşan hastalıklardan korunma ve kontrol ilkelerini açıklar, duruma uygun yöntemleri sayar. 4. Toplumda sık görülen/model oluşturan genital sistem hastalıklarının tanı ve izleminde laboratuvar kullanımını tarif eder. 5. Toplumda sık görülen/model oluşturan genital sistem hastalıklarının belirti ve bulgularını sayar, klinik görünümünü tarif eder, tedavide kullanılan ajanları sayar. 6. Gebelik sürecini ve bağlı komplikasyonları tarif eder. 7. Aile planlamasının amaçlarını sıralar, aile planlama yöntemlerini sayar, verilen duruma uygun doğum kontrol yöntemini seçer. 8. Fertilite ve infertilite kavramlarını açıklar. 9. Ele aldığı toplulukta sağlık riskleri, sağlığın korunumu, ortam sağlığı, kronik hastalık izlemesi yapabilir (yıl boyu devamlı hedef).
14	Lehninger Principles of Biochemistry, 6th Edition, D.L. Nelson, M.M. Cox. WH Freeman and Company, 2013. Akılcı Tedavi Yönünden Tıbbi Farmakoloji 1-2, S. Oğuz KAYAALP, Güneş Tıp Kitabevi, 2012 Basic and Clinical Pharmacology, 13th Edition, B.Katzung and A.Trevor, Lange- McGraw-Hill Medical, 2014 Rubin's Pathology: Clinicopathologic Foundations of Medicine, 7th Edition, D.S.Strayer, Wolters Kluwer, 2014 Robbins Temel Patoloji, Çeviri Ed.S.Tuzlali,M.Güllüoğlu,U.Çevikbaş, Nobel Tıp Kitabevi 2014 Lippincott İmmünoloji, , Çeviri Ed.S.Tuzlali,G. Deniz,G.Erten, Y.Camcıoğlu, Nobel Tıp Kitabevi 2014 Cellular and Molecular Immunology, 8th Edition, AK Abbas, AHH Lichtman, Saunders, 2014 Tıbbi Mikrobiyoloji, Çeviri Ed. Prof. Dr. Osman Şadi Yenen, Nobel Tıp Kitabevi 2014 Internal Medicine Buletpoints Handbook, Robert M. Gullberg, (1st Ed.) e-book, BookBaby, 2015 Goldman-Cecil Medicine, 2-Volume Set, 25e (Cecil Textbook of Medicine), Ed.s Lee Goldman, Andrew I. Schafer, Elsevier, 2015 Surgery: An Introductory Guide, Umut Sarpel, (1st Ed.) e-book, Springer, 2014 Schwartz's Principles of Surgery, 10th edition, Ed.s F. Brunicaardi, Dana Andersen, Timothy Billiar, David Dunn, McGraw-Hill Education / Medical, 2014.

<b>15</b>	Besides the protection and improvement of the population and individuals she is serving, within the scope of her duties and responsibilities, she performs all interventions and applications including public education to protect and improve her health and well-being as well and sets an exemplary behavior.
<b>16</b>	Handles every experience as a new opportunity of learning. Determines the need of learning and continuous education and training independently. Evaluates information sources in accordance with evidence based medicine principles and methods.
<b>17</b>	Contributes to the improvement of current and creation of new knowledge and practices in line with practices and needs; evaluation and distribution of these improved/new information as an individual or as a part of a team.
<b>18</b>	By using Turkish competently, communicates with patients, patients' relatives, colleagues and other related professionals in written and verbally. Uses appropriate terminology considering the individual's education level she is communicating with to ensure correct understanding of the concepts and professional terms she is talking about.
<b>19</b>	Has the command of at least one foreign language sufficient enough to understand, comment and communicate on the professional literature.
<b>20</b>	Shares the information obtained during professional practice and scientific works with appropriate people and institutions by using appropriate materials and methodologies and in accordance with ethical principles.
<b>21</b>	Respects and is sensitive to the beliefs, ethnicity, gender, disability and other cultural, social and physical differences. Forms a mutual professional communication ground for patients, patients' relatives and other healthcare professionals considering aforementioned differences.
<b>22</b>	Assembles teams when team work required, and determines and provides the educational and training needs of team members. Able to perform effectively as a team member or team lead within the area of responsibility and with awareness of others' roles and responsibilities and in accordance with other team members.

All Courses Provided in the Program		Program Competencies																					
Code	Course	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16*	17	18	19	20	21	22
MED 101	Cell Sciences I: From molecule to cell	5	1	2	1	1	1	1	1	1	1	1	1	2	1	2	5	2	1	1	1	2	1
MED 102	Cell sciences II From cell to tissue 1	5	1	2	1	1	1	1	1	3	3	3	1	2	1	2	5	1	2	1	3	3	1
MED 103	Cell sciences III From cell to tissue 2	5	1	2	1	1	1	1	1	1	1	1	2	1	2	5	1	1	1	1	1	1	1
MED 104	Cell Sciences IV From tissue to system	5	1	2	1	1	1	1	3	3	1	1	2	1	3	5	2	1	3	3	1	1	1
MED 201	Muscle and periferic nervous system	5	2	2	1	1	2	1	1	1	1	2	3	1	3	5	1	1	1	1	1	1	1
MED 202	Blood, circulation and respiratory systems	5	2	2	1	1	2	1	3	3	1	2	3	1	3	5	1	1	1	3	3	1	1
MED 203	Gastrointestinal system ve metabolism	5	2	2	1	1	2	1	1	1	1	2	3	1	3	5	1	1	1	1	1	1	1
MED 204	Central nervous system	5	2	2	1	1	2	1	1	1	1	2	3	1	3	5	1	1	1	1	1	1	1
MED 205	Endocrine and reproductive systems	5	2	2	1	1	2	1	1	1	1	2	3	1	3	5	1	1	1	1	1	1	1
MED 206	Biological basis of diseases	5	3	2	1	1	2	1	2	4	1	2	3	1	3	5	1	1	1	4	1	1	1
MED 301	Patological basis of neoplastic, hematological and dermatological diseases	5	4	4	2	3	1	3	3	4	4	5	3	4	2	3	5	3	3	1	1	3	3
MED 302	Patological basis of infectious and immune system diseases	5	4	4	2	3	1	3	3	4	4	1	3	4	2	3	5	3	2	3	4	1	3
MED 303	Patological basis of respiratory and circulatory systems diseases	5	4	4	2	1	1	3	3	3	4	1	3	4	2	3	5	3	1	1	1	1	3
MED 304	Patological basis of gastrointestinal and urinary system diseases	5	4	4	2	3	1	3	3	2	4	1	3	4	2	3	5	3	1	1	1	1	3
MED 305	Patological basis of endocrine and reproductory systems diseases	5	4	4	2	1	1	3	3	2	4	1	3	4	2	3	5	3	1	1	1	1	3
MED 306	Patological basis of nervous and musculoskeletal system diseases	5	4	4	2	1	1	3	3	2	4	1	3	4	2	3	5	3	1	1	4	3	3
MED 401	Infection and respiratory system diseases	5	5	5	4	4	3	4	4	4	5	1	5	5	3	4	5	4	3	3	4	1	3
MED 402	General surgery	5	5	5	4	1	3	4	4	4	5	1	5	5	3	4	5	4	3	3	2	1	3
MED 403	Pediatrics	5	5	5	4	5	3	4	4	4	5	1	5	5	3	4	5	4	3	3	2	1	3
MED 404	Internal diseases and cardiology	5	5	5	4	4	3	4	4	4	5	1	5	5	3	4	5	4	3	3	2	1	3
MED 405	Gynecology and obstetrics	5	5	5	4	1	3	4	4	4	5	1	5	5	3	4	5	4	4	3	2	1	3
MED 406	Forensic medicine	3	5	5	4	1	4	4	4	5	5	5	1	5	3	4	5	4	3	3	2	2	3
MED 501	Urology	5	5	5	4	1	3	4	4	4	5	1	5	5	3	4	5	4	3	3	2	1	3
MED 502	Neurology	5	5	5	4	1	3	4	4	4	5	1	5	5	3	4	5	4	3	3	2	1	3
MED 503	Neurosurgery	5	5	5	4	1	3	4	4	4	5	1	5	5	3	4	5	4	3	3	2	1	3
MED 504	Psychiatrics	5	5	5	4	1	3	4	4	4	5	1	5	5	3	4	5	4	4	3	2	1	3
MED 505	Pediatric psychiatrics	5	5	5	4	3	3	4	4	4	5	1	5	5	3	4	5	4	4	3	2	1	3
MED 506	Ophtalmology	5	5	5	4	1	3	4	4	4	5	1	5	5	3	4	5	4	3	3	2	1	3
MED 507	Otorhinolaryngology	5	5	5	4	1	3	4	4	4	5	1	5	5	3	4	5	4	3	3	2	1	3
MED 508	Dermatology and veneral diseases	5	5	5	4	1	3	4	4	4	5	1	5	5	3	4	5	4	4	3	2	1	3
MED 509	Radiology	5	5	5	4	1	3	4	4	4	5	1	5	5	3	4	5	4	3	3	2	1	3
MED 510	Pediatric surgery	5	5	5	4	1	3	4	4	4	5	1	5	5	3	4	5	4	4	3	2	1	3
MED 511	Orthopedics	5	5	5	4	3	3	4	4	4	5	1	5	5	3	4	5	4	3	3	2	1	3
MED 512	physical medicine and rehabilitation	5	5	5	4	5	3	4	4	4	5	1	5	5	3	4	5	4	4	3	2	1	3
MED 513	Social Pediatrics	5	5	5	4	5	3	4	4	4	5	1	5	5	3	4	5	4	4	3	4	1	3
MED 514	Plastic surgery	5	5	5	4	1	3	4	4	4	5	1	5	5	3	4	5	4	3	3	2	1	3
MED 515	Elective stage	5	5	5	4		3	4	4				1		5	3	4	5	4	3	3		3