| Course Code | Course Name | (T,A,L) | Credit | ECTS | Compulsory/Elective Course |
|---|---|---|---|---|---|
| AIT101 | Atatürk's Principles and the History of Turkish Revolution I | (2,0,0) | 2 | 2 | Compulsory |

The reasons that prepared the collapse of the Ottoman Empire and the Turkish Revolution. Disintegration of the Ottoman Empire, Tripoli War, Balkan Wars, First World War. Armistice of Mudros. The situation of the country in the face of the occupations and the reaction of Mustafa Kemal Pasha, the departure of Mustafa Kemal Pasha to Samsun. The opening of the Turkish Grand National Assembly of the National Struggle. Treaty of sevr. The Lausanne Peace Treaty. Atatürk's Principles: Republicanism, Nationalism. Populism, Statism. Secularism, Revolutionism.

| Course Code | Course Name | (T,A,L) | Credit | ECTS | Compulsory/Elective Course |
|---|---|---|---|---|---|
| AIT102 | Atatürk's Principles and the History of Turkish Revolution II | (2,0,0) | 2 | 2 | Compulsory |

Abolition of the Sultanate; Proclamation of the Republic; Taking the Election Decision in the First Parliament; Establishment of the People's Party; Ankara Becoming the Capital, Proclamation of the Republic and Reactions; Abolition of the Caliphate (The Emergence of the Problem of the Caliphate and the Events Preparing the Abolition of the Caliphate), Progressive Republican Party and Sheikh Said Rebellion; Law of Takrir-i Sukun; Closing the Progressive Republican Party; İzmir Assassination Attempt), Free Republican Party and Menemen Incident; An Overview of Atatürk-İnönü Separation, Revolutions and Their Goals; Revolutions in Law; 1924 Organization-ı Esasiye Law; Adoption of the Turkish Civil Code; Adoption of Other Basic Laws; Revolutions in Women's Rights, Education and Culture; The Law of Unification of Education; Adoption of the New Turkish Alphabet; New Understanding of History and Language; From Darülfünun to Istanbul University; Fine Arts, Developments in Economics; Late Ottoman Economy; Turkish Economy Congress and Its Results; Economic Activities in the First Years of the Republic; Transition to the Practice of Statism, Revolutions Made in Social Life (Modernization in Clothing: The Law on Wearing Hats; Closure of Lodges, Zawiyas and Tombs, Adoption of International Time, Calendar, Numbers, Measurements and Week Holidays; Adoption of the Law on Surnames; Developments), Turkey's Foreign Policy in Atatürk Era; Years 1919-1923; Years 1923-1930, Going to the Second World War and Turkish Foreign Policy 1931-1939, Principles of Atatürk; General Overview of Atatürk's Principles; Republicanism, Nationalism, Populism, Statism, Secularism, Revolutionism, İsmet İnönü Period (1938-1950); Domestic Policy During the Second World War; Establishment of the Democratic Party, Democratic Party Period (1950-1960); May 27 Military Intervention and National Unity Committee

| Course Code | Course Name | (T,A,L) | Credit | ECTS | Compulsory/Elective Course |
|---|---|---|---|---|---|
| MAT103 | Mathematics I | (3,0,0) | 3 | 4 | Compulsory |

Functions, limits and continuity. Derivatives. Mean value theorem. Sketching graphs. Definite integrals, infinite integrals (antiderivatives). Logarithmic, exponential, trigonometric and inverse trigonometric functions and their derivatives. L'Hospital's rule. Techniques of integration. Applications of the definite integral, improper integrals.

| Course Code | Course Name | (T,A,L) | Credit | ECTS | Compulsory/Elective Course |
|---|---|---|---|---|---|
| MAT104 | Mathematics II | (3,0,0) | 3 | 4 | Compulsory |

| Course Code | Course Name | (T,A,L) | Credit | ECTS | Compulsory/Elective Course |
|---|---|---|---|---|---|

Plane and polar co-ordinates, area in polar co-ordinates, arc length of curves. Limit, continuity and differentiability of function of several variables, extreme values, method of Lagrange multipliers. Double integral, triple integral with applications. Line integrals, Green's theorem. Sequences, infinite series, power series, Taylor's series. Complex numbers

| Course Code | Course Name | (T,A,L) | Credit | ECTS | Compulsory/Elective Course |
|---|---|---|---|---|---|
| MBP100 | Internship I | (0,0,0) | 0 | 2 | Compulsory |

Summer Practice IThe minimum time for this practice in an organization is four weeks (20 working days). The main objective is to observe a company in an original setting and answer questions on the fundamen Computer Engineering and Information Science. A written report summarizing the training experience is required.

| Course Code | Course Name | (T,A,L) | Credit | ECTS | Compulsory/Elective Course |
|---|---|---|---|---|---|
| MBP101 | Basic Concepts of Information Technologies | (2,0,2) | 3 | 4 | Compulsory |

Examining the methods and techniques of accessing information and acquiring the ability to use them are within the scope of "Basic Information Technology Use". Basic concepts of information technologies such as Information, Informatics, Computer, Technological Development, professional concepts and applications, programming languages and up-to-date software (Windows, Word, Excel, Power Point, Access, etc.) applications constitute the basic course content.

| Course Code | Course Name | (T,A,L) | Credit | ECTS | Compulsory/Elective Course |
|---|---|---|---|---|---|
| MBP102 | Operating Systems | (3,0,0) | 3 | 4 | Compulsory |

The aim of the course is to provide Computer Engineering students with knowledge about Operating systems design and development problems and solution methods. Topics: introduction to operating systems: usage purposes, functions, features. Resource management, work and resource organization. Prioritize and re-prioritize processes. Memory usage and usage design. Interrupts and control, intra-OS communication, peripherals control, examination of current operating systems

| Course Code | Course Name | (T,A,L) | Credit | ECTS | Compulsory/Elective Course |
|---|---|---|---|---|---|
| MBP103 | Introduction to Programming | (2,0,2) | 3 | 5 | Compulsory |

Algorithm development. Elements of C. Structure of a C program, data types, constants, input and output of integer numbers, real numbers. Variables, expressions and assignments. Input and output functions. Control Structures. Selection- If statement, multiple selection- switch statement. Iteration- while, do-while, for operators. User-defined functions, arrays and subscripted variables, single and multi-dimensional arrays. Array and functions. Pointers, pointers and strings. Structures, creating structures. Structure as function

| Course Code | Course Name | (T,A,L) | Credit | ECTS | Compulsory/Elective Course |
|---|---|---|---|---|---|

argument. Subprograms. Files. File operations. Application programs will be developed in a laboratory environment using the C language.

| Course Code | Course Name | (T,A,L) | Credit | ECTS | Compulsory/Elective Course |
|---|---|---|---|---|---|
| MBP104 | Object Oriented Programming I | (2,0,2) | 3 | 4 | Compulsory |

ntroduction, Types and Operations. Python language. Statements and Syntax, Input/Output. Functions, Modules, Classes and Object Oriented Programming, Exceptions and Tools, Advanced Topics. The students are expected to work within a GNU/Linux environment. The course provides a basic introduction into object-oriented programming.

| Course Code | Course Name | (T,A,L) | Credit | ECTS | Compulsory/Elective Course |
|---|---|---|---|---|---|
| MBP105 | Database I | (3,0,0) | 3 | 4 | Compulsory |

Database Management Systems Database architecture, comparison to file-based systems, historical data models, conceptual model; integrity constraints and triggers; functional dependencies and normal forms; relational model, algebra, database processing and Structured Query Language (SQL), Dynamic SQL, Stored Procedures. Emerging trends, O.O. Database Model. Internet & Databases. Study of Oracle, MsSql and MySql as popular DBMS.

| Course Code | Course Name | (T,A,L) | Credit | ECTS | Compulsory/Elective Course |
|---|---|---|---|---|---|
| MBP106 | Database II | (2,0,2) | 3 | 4 | Compulsory |

Database Management Systems Database architecture, comparison to file-based systems, historical data models, conceptual model; integrity constraints and triggers; functional dependencies and normal forms; relational model, algebra, database processing and Structured Query Language (SQL), Dynamic SQL, Stored Procedures. Emerging trends, O.O. Database Model. Internet & Databases. Study of Oracle, MsSql and MySql as popular DBMS.

| Course Code | Course Name | (T,A,L) | Credit | ECTS | Compulsory/Elective Course |
|---|---|---|---|---|---|
| MBP107 | Fundamentals Of Web Design | (3,0,0) | 3 | 5 | Compulsory |

The aim of this course is to enable students to develop client-side web applications by teaching them the necessary knowledge, tools and languages. After giving general information about Internet and Web technologies to the student, an introduction to web design will be made. HTML markup language, which is the basis of Internet programming and used to create the content of web pages, Cascading Style Templates (CSS) for visual (text and format) formatting, and JavaScript, the popular client-side script language used to create interactive pages, are the main topics of the course.

| Course Code | Course Name | (T,A,L) | Credit | ECTS | Compulsory/Elective Course |
|---|---|---|---|---|---|
| MBP108 | Internet Programming I | (2,0,2) | 3 | 4 | Compulsory |

The aim of this course is to enable students to develop client-side web applications by teaching them the necessary knowledge, tools and languages. After giving general information about Internet and Web technologies to the student, an introduction to web design will be made. HTML markup language, which is the basis of Internet programming and used to create the content of web pages, Cascading Style Templates (CSS) for visual (text and format) formatting, and JavaScript, the popular client-side script language used to create interactive pages, are the main topics of the course.

| Course Code | Course Name | (T,A,L) | Credit | ECTS | Compulsory/Elective Course |
|---|---|---|---|---|---|
| MBP201 | Internet Programming II | (2,0,2) | 3 | 4 | Compulsory |

Within the scope of this course; site identification, Web Forms, data transfer methods between pages, XML applications and web services, session control management with cookies, cookie, SESSION session management, MySql server connection, database operations, encryption with MD5 and crypt, global transactions, ajax usage with PHP, Host rental, Web site publishing and database management on the host.

| Course Code | Course Name | (T,A,L) | Credit | ECTS | Compulsory/Elective Course |
|---|---|---|---|---|---|
| MBP203 | Object Oriented Programming I | (2,0,2) | 3 | 4 | Compulsory |

Fundamentals of object-oriented programming, Basics of programming in C++, Control structures and functions with different value loops, Parameter flows of functions, User-defined function software-development, Creating Dynamic-Static and Template structures in functions, ANSI-ISO C++ Data types, Array and String structures, Structured programming, Object-oriented programming with Class, Inheritance and Composition structures in Classes, Classes and pointer relations, Virtual and friend functions, Overload structures in classes, Programming in template structure, Creating Threat and DLL with C++ Object-oriented visual programming on visual software platforms.

| Course Code | Course Name | (T,A,L) | Credit | ECTS | Compulsory/Elective Course |
|---|---|---|---|---|---|
| MBP205 | Visual Programming I | (2,0,2) | 3 | 4 | Compulsory |

To teach the features of one of the object-oriented visual programming languages (C#) and the general features of the compiler program; Developing different kinds of software running under Windows operating system using this compiler.

| Course Code | Course Name | (T,A,L) | Credit | ECTS | Compulsory/Elective Course |
|---|---|---|---|---|---|
| MBP207 | Database Management Systems | (2,0,2) | 3 | 4 | Compulsory |

To introduce database systems to students, to create database designs using E-R and relational data models for given database problems, to set up these designs in the form of tables in the physical database, to write

| Course Code | Course Name | (T,A,L) | Credit | ECTS | Compulsory/Elective Course |
|---|---|---|---|---|---|
| | | | | | |

and run the necessary queries on this physical database, to develop database applications using ODBC/JDBC, stored procedures and triggers.

| Course Code | Course Name | (T,A,L) | Credit | ECTS | Compulsory/Elective Course |
|---|---|---|---|---|---|
| MBP200 | Staj II | (0,0,0) | 0 | 2 | Compulsory |

Internship II is at least 4 weeks (20 working days) in a company and covers the observation of Computer Systems and Software. The main purpose is to observe the real-life functioning of a company and to answer questions asked in the field of Computer Engineering and Information Technologies. A written internship report summarizing the experiences gained during the internship is requested from the student.

| Course Code | Course Name | (T,A,L) | Credit | ECTS | Compulsory/Elective Course |
|---|---|---|---|---|---|
| MBP202 | Computer Networks | (3,0,0) | 3 | 4 | Compulsory |

The aim of this course is to introduce and apply the basic concepts of computer networks and communication. At the end of the course, students will have information about the basic principles of computer networks, communication protocol structure and functions, protocol layers and their relationships, and partial network security. Students will be able to examine ISO/OSI and TCP/IP architectural structures and explain the function of each protocol layer. In particular, TCP/IP protocol layers will be examined by using packet analysis tools such as TCPDUMP and Wireshark. In addition, client server programs will be developed using the socket library. Java language is envisaged in socket programming

| Course Code | Course Name | (T,A,L) | Credit | ECTS | Compulsory/Elective Course |
|---|---|---|---|---|---|
| MBP204 | Software Requirement Analysis | (3,0,0) | 3 | 4 | Compulsory |

Understanding the Software Lifecycle. Requirements engineering in the software lifecycle. Requirements inference and modeling: problems and techniques. Documentation and management of requirements. Standards and CASE tools. Cognitive and socio-organizational issues. Realization of Requirements Engineering Activities in different concept projects. Creation of Use cases, User Stories, Constraints, Interfaces and Requirements Analysis Documents. Identification and Validation of Requirements with Brainstorming and Idea Germination.

| Course Code | Course Name | (T,A,L) | Credit | ECTS | Compulsory/Elective Course |
|---|---|---|---|---|---|
| MBP206 | Visual Programming II | (3,0,0) | 3 | 4 | Compulsory |

Introduction to programming and .NET platform, Visual Studio installation and environment, project preparation steps, data types in Visual C# programming language, decision structures and loops, return and non-return methods, exception handling, object-oriented programming, Windows forms and controls, database insertion , to create Windows applications by developing the interface.

| Course Code | Course Name | (T,A,L) | Credit | ECTS | Compulsory/Elective Course |
|---|---|---|---|---|---|
| MBP208 | Software Architecture | (3,0,0) | 3 | 4 | Compulsory |

This course covers the fundamentals of computer architecture and organization. The structure and working principles of current computer systems, the development and design process of computers in history, processor parts in hardware, control unit architecture, memory organization and system organization constitute the content of the course.

| Course Code | Course Name | (T,A,L) | Credit | ECTS | Compulsory/Elective Course |
|---|---|---|---|---|---|
| MBP210 | Graduation Project | (3,0,0) | 3 | 6 | Compulsory |

Our students will make a Graduation Project; It is aimed to apply the theoretical and technical lessons they have acquired in their 4-year education in their production. It is expected that they will use the disciplines needed in the publication preparation process, such as editorial originality, economic structure of the media, ethics, and communication law.

| Course Code | Course Name | (T,A,L) | Credit | ECTS | Compulsory/Elective Course |
|---|---|---|---|---|---|
| ING101 | English I | (3,0,0) | 3 | 4 | Compulsory |

Introducing yourself, giving personal info, talking about objects, talking about family, describing and talking about buildings and furniture, talking about schedules, talking about routines,  ability, asking for and giving directions, talking about food and quantities.

Note: This course is offered by  the departments in which the medium of instruction is Turkish.

| Course Code | Course Name | (T,A,L) | Credit | ECTS | Compulsory /Elective Course |
|---|---|---|---|---|---|
| ING102 | English II | (3,0,0) | 3 | 4 | Compulsory |

Explaining a recipe, ordering food and making requests, comparing things/people/places, talking about now, making suggestions and arrangements, talking about past, giving advice, talking about the future, checking into a hotel.

Note: This course is offered by  the departments in which the medium of instruction is Turkish.

| Course Code | Course Name | (T,A,L) | Credit | ECTS | Compulsory/Elective Course |
|---|---|---|---|---|---|
| TUR101 | Turkish I: Written Expression | (2,0,0) | 2 | 2 | Compulsory |

Reading passages related to the chapter; grammar studies; vocabulary and translation activities; listening activities; debates on current issues related to the department (Repetition of tenses, Internet history, Health and medicine, passive frameworks, Social issues, Environmental issues, Repetition of modals, Law and punishment, repetition of adjective phrases, Language and Literature, Repetition of noun phrases.

| Course Code | Course Name | (T,A,L) | Credit | ECTS | Compulsory/Elective Course |
|---|---|---|---|---|---|
| TUR102 | Turkish II: Oral Expression | (2,0,0) | 2 | 2 | Compulsory |

Spelling, punctuation and composition (punctuation marks, other signs), Spelling, spelling rules (capital letters, spelling of numbers, spelling of abbreviations, spelling of quoted words), Composition (purpose of composition, method of writing composition), plan in composition, introduction, development, result, Expression features, clarity in expression, simplicity in expression, clarity and sincerity in expression, Expression disorders (using synonyms in sentences), Misuse of idioms, Expression styles (explanation, story, concise expression, description, satire, portrait, proof, speech, Verbal expression types (daily and impromptu speech, prepared speech, panel discussion, debate, panel), Written expression types (letter, telegram, greeting, invitation, literary letter), business letters, official letter, petition, report, report, decision, advertisement, conversation, criticism, memoir, travel writing, interview, survey, autobiography, biography, novel, story, fairy tale, fable, theatre, tragedy,drama ,scenario) .

| Course Code | Course Name | (T,A,L) | Credit | ECTS | Compulsory/Elective Course |
|---|---|---|---|---|---|
| NTE1 | Non-Technical Elective I | (0,0,0) | 3 | 6 | Elective |
| | | | | | |

| Course Code | Course Name | (T,A,L) | Credit | ECTS | Compulsory/Elective Course |
|---|---|---|---|---|---|
| TE1 | Technical Elective I | (3,0,0) | 3 | 6 | Elective |
| | | | | | |

| Course Code | Course Name | (T,A,L) | Credit | ECTS | Compulsory/Elective Course |
|---|---|---|---|---|---|
| TE2 | Technical Elective II | (3,0,0) | 3 | 6 | Elective |
| | | | | | |

| Course Code | Course Name | (T,A,L) | Credit | ECTS | Compulsory/Elective Course |
|---|---|---|---|---|---|
| TE3 | Technical Elective III | (3,0,0) | 3 | 6 | Elective |
| | | | | | |

| Course Code | Course Name | (T,A,L) | Credit | ECTS | Compulsory/Elective Course |
|---|---|---|---|---|---|
| TE4 | Technical Elective IV | (3,0,0) | 3 | 5 | Elective |
|  |  |  |  |  |  |