

**FIRAT UNIVERSITY ELAZIĞ ORGANIZED INDUSTRIAL ZONE VOCATIONAL SCHOOL COMPUTER
TECHNOLOGIES DEPARTMENT COMPUTER PROGRAMMING PROGRAM**

1st YEAR FALL SEMESTER

Code	Course Name	T	U	K	C/S	ECTS
AIT101	Principles of Atatürk and History of Turkish Reforms -I	2	0	2	C	2
TRD109	Turkish Language -I	2	0	2	C	2
YDI107	Foreign Language -I	2	0	2	C	2
MAT101	Mathematics -I	3	0	3	C	4
OBT101	Fundamentals of Programming	3	1	4	C	4
OBT103	Fundamentals of Web Design	3	1	3	C	4
OBT105	Computer-Aided Design -I	2	2	4	C	6
OBT109	Office Software	3	1	4	C	4
Elective Course	2	0	2	E	2	
TOTAL	22	5	26		30	
OBT107	Occupational Safety	2	0	2	E	2
OBT111	Environmental Protection	2	0	2	E	2

Abbreviations: T = Theoretical course hours, U = Practical course hours, K = Course credits, C = Compulsory course, E = Elective course, ECTS = European Credit Transfer System

1st YEAR SPRING SEMESTER

Code	Course Name	T	U	K	C/S	ECTS
AIT102	Principles of Atatürk and History of Turkish Reforms - II	2	0	2	C	2
TRD110	Turkish Language -II	2	0	2	C	2
YDI108	Foreign Language -II	2	0	2	C	2
MAT102	Mathematics -II	3	0	3	C	4
OBT104	Web Editor	2	1	3	C	4
OBT106	Computer-Aided Design -I	2	2	4	C	4
OBT110	Database and Management	3	1	4	C	5
OBT108	Internet Programming-I	3	1	4	C	5
Elective Course	2	0	2	E	2	
TOTAL	21	5	26		30	
OBT112	Communication	2	0	2	E	2

OBT114	Professional Ethics	2	0	2	E	2
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Explanation: Z = Compulsory course, S = Elective course

2nd YEAR FALL SEMESTER

Code	Course Name	T	U	K	C/S	ECTS
OBT205	Object-Oriented Programming-I	3	1	4	C	5
OBT209	Network Fundamentals	1	1	2	C	2
OBT211	Web Project Management	1	1	2	C	2
OBT215	Internship Evaluation	0	2	1	C	6
OBT221	Professional Practice Training	0	16	8	C	8
OBT223	Internet Programming-II	3	1	4	C	5
Elective Course	2	0	2	E	2	
TOTAL	10	22	23		30	
OBT201	Professional Foreign Language-I	2	0	2	E	2
OBT219	Accounting Programs-II	2	0	2	E	2

Explanation: Z = Compulsory course, S = Elective course

2nd YEAR SPRING SEMESTER

Code	Course Name	T	U	K	C/S	ECTS
OBT204	System Analysis and Design	2	2	3	C	4
OBT206	Object-Oriented Programming-II	3	1	4	C	4
OBT208	Server Operating Systems	3	1	4	C	4
OBT210	Open Source Operating Systems	1	1	2	C	2
OBT212	Business Management	2	1	3	C	4
OBT224	Computerized Control	1	1	2	C	2
OBT222	Professional Practice Training-II	0	16	8	C	8
Elective Course	2	0	2		2	
TOTAL	14	23	28		30	
OBT228	Accounting Programs-II	2	0	2	E	2
OBT230	Quality Assurance System	2	0	2	E	2

Explanation: Z = Compulsory course, S = Elective course

CONTENT OF ALL COURSES IN THE PROGRAM

1st YEAR FALL SEMESTER

Code	Course Name	T	U	K	C/S	ECTS
AIT101	Principles of Atatürk and History of Turkish Reforms I	2	0	2	C	2
	<p>The purpose of studying the Principles of Atatürk and the concept of reforms, an overview of the reasons for the collapse of the Ottoman Empire and the preparation for the Turkish Reforms; the disintegration of the Ottoman Empire, the Treaty of Mudros, the situation of the country in the face of occupations and Mustafa Kemal Pasha's landing in Samsun, the first step for the national struggle, organization through congresses, Kuvayi Milliye and Misak-ı Milli, the opening of the Turkish Grand National Assembly, the Turkish Grand National Assembly taking over the management of the War of Independence, the national struggle until the Sakarya Victory, the Sakarya War and the Great Offensive, from Mudanya to Lausanne, national struggle in the field of education and culture, national struggle in the social and economic field.</p>					
TRD109	Turkish Language I	2	0	2	C	2
	<p>Understanding that language is a product of the human mind, understanding the structural features and richness of the Turkish language, understanding the ways to be successful in written expression, developing the abilities of research, reading, and information acquisition.</p>					
YDI107	English I	2	0	2	C	2
	<p>Adverbs; prepositions: place, time, movement; singular and plural nouns, countable and uncountable nouns, tenses, simple present tense, present continuous tense, past tense structures, modals, will, should, should not, must, must not, can, comparative structures, pronouns, personal pronouns, possessive pronouns, adjectives, affirmative sentences, negative sentences and questions, conjunctions.</p>					
MAT101	Mathematics I	3	0	3	C	4
	<p>Sets, numbers, modular arithmetic, the concept of algebra, the concept of polynomials and operations with polynomials, the concepts of ratio and proportion and their applications, equations, inequalities, basic operations in functions, types of functions, parabola and its graph, piecewise linear function and its graph, absolute value function and its graph, exponential functions, logarithm.</p>					
OBT101	Fundamentals of Programming	3	1	4	C	4
	<p>Introduction to programming, variables and constants, input-output operations, operators, algorithms, and flowcharts.</p>					

Code	Course Name	T U K C/S ECTS
OBT103	Fundamentals of Web Design	3 1 3 C 4
	Teaching students the creation and coding of websites. Creating websites using HTML, XHTML, CSS.	
OBT105	Computer-Aided Design-I	2 0 2 C 6
	Basic concepts related to graphics and animation. Video card, pixel, resolution and color depth. Basic drawing tools. Drawing editing tools. Layer usage. Understanding image saving formats and features. Opening and editing image files.	
OBT109	Office Software	3 1 4 C 4
	Document and formatting operations, printing, table operations, macros, data entry, formulas, chart operations, data analysis, slide operations, design, presentation settings.	
OBT107	Occupational Safety	2 0 2 E 2
	First Aid Training, First Aid Supplies, Personal Safety Assurance, Ensuring Employee Safety, Ensuring Workplace Safety.	
OBT111	Environmental Protection	2 0 2 E 2
	Concepts of ethics and morality and the factors that play a role in the formation of these concepts. Elements causing environmental pollution. Global warming and its impact on the environment. Sectoral Pollution and its prevention.	

1st YEAR SPRING SEMESTER

Code	Course Name	T U K C/S ECTS
AIT102	Principles of Atatürk and History of Turkish Reforms II	2 0 2 C 2
	The struggle for independence, the Battle of Sakarya, the Great Offensive, from Mudanya to Lausanne, republicanism and the caliphate, the period of the maintenance of order and democracy, nationalism, the principle of secularism, Turkey's agenda.	
TRD110	Turkish Language II	2 0 2 C 2
	Understanding the types of written expression in daily life, understanding the importance of punctuation in written expression, understanding the importance of correct expression in personal and social communication, applying research, reading, and information acquisition abilities.	
YDI108	English II	2 0 2 C 2

Code	Course Name	T U K C/S ECTS
	Tenses, present tense, past tense, future tense structures, modals; might, could, can, must, may; adverbs, place, direction, purpose, manner adverbs; adjectives, order of adjectives, comparative and superlative structures; passive voice, passive voice in present, past, and future tenses, conditional sentences, relative clauses, reported speech, verb structures, to-infinitive, -ing forms, noun clauses, adverb clauses, comparative structures.	
MAT102	Mathematics II	3 0 3 C 4
	Integral, calculating area and volume using integral, calculating center of gravity using integral, differential equations, solutions of differential equations, errors and types of errors, solving systems of linear equations, curve fitting methods, interpolation techniques.	
OBT104	Web Editor	2 1 3 C 4
	Basic Tools of Web Editor, Text, Table, Multimedia operations, Frame, Template, Form Operations.	
OBT106	Computer-Aided Design II	2 2 4 C 4
	Creating animations with Adobe Flash. Creating 3D designs with Solidworks. Using 3dmax applications and render.	
OBT110	Database and Management	3 1 4 C 5
	Creating and developing databases with Microsoft Access. Data structures, data models, entity and relationship sets, normalization processes, use and queries of SQL.	
OBT108	Internet Programming I	3 1 4 C 5
	Basic contents, HTTP rules and methods, HTML/CSS web design formats, introduction to Javascript on the client-side, and use of PHP on the server-side.	
OBT112	Communication	2 0 2 E 2
	The course is aimed at teaching the basic concepts and topics related to communication. Intuitive language, classification of communication, types of communication, elements of communication, culture and language, language and learning.	
OBT114	Professional Ethics	2 0 2 E 2
	Concepts of ethics and morality and the factors that play a role in the formation of these concepts.	

2nd YEAR FALL SEMESTER

Code	Course Name	T	U	K	C/S	ECTS
OBT205	Object-Oriented Programming-II	3	1	4	C	5
	Installing and configuring Visual Studio for object-oriented programming, creating console and operating system applications, designing menus and forms. Understanding database operations in Visual Studio. Performing database operations and interactive data objects with data structures. Developing advanced database applications in Visual Studio. Installing Crystal Report for reporting operations in Visual Studio. Creating reports with Crystal Report in database operations.					
OBT209	Network Fundamentals	1	1	2	C	2
	Introduction to Data and Computer Communication, Data Transmission, Network topologies, Computer networks and their classification, OSI reference model, TCP/IP, Network devices used in computer networks.					
OBT211	Web Project Management	1	1	2	C	2
	Requirements of a WEB site, designing a WEB site, preparing a WEB site for publication, publishing a WEB site, security settings of a WEB site, backing up a WEB site, maintenance of a WEB site.					
OBT215	Internship Evaluation	0	2	1	C	6
	Evaluation and presentation of internship logs.					
OBP221	Professional Practice-I	0	16	8	C	8
	Includes a fourteen-week workplace training for one working day at a business related to professional practice education. Introduction to industrial fields, demonstration of production stages, observation of working conditions of suitable companies, sharing work experiences, introduction of companies in the industry.					
OBP223	Internet Programming-II	3	1	4	C	5
	Using a server-side internet programming language with form elements and databases.					
OBP201	Professional Foreign Language	2	0	2	E	2
	Understanding what is heard in topics related to the profession. Speaking the foreign language correctly, using the right words and expressions in business life with correct pronunciation, emphasis, and intonation.					
OBP219	Accounting Programs-I	2	0	2	E	2

Code	Course Name	T U K C/S ECTS
	Definition and scope of accounting, basic concepts related to finance and economics, business finance and financial management, personal financial planning, investment decisions and investment planning, selecting investment tools and investment portfolio, risk management in investments, investor relations, overview of capital market institutions, securities and stock market terminology and investment tools, method of buying and selling shares.	

2nd YEAR SPRING SEMESTER

Code	Course Name	T U K C/S ECTS
OBT204	System Analysis and Design	2 2 3 C 4
	Working on the preliminary project and topic selection. Solution proposals and instructions. System outputs planning.	
OBT206	Object-Oriented Programming-II	3 1 4 C 4
	Programming with C# Language.	
OBT208	Server Operating Systems	3 1 4 C 4
	Basic operating system concepts, structure of the operating system, installing the operating system, using administrative tools of the operating system, installing operating system utilities, access control, network settings, server operating systems.	
OBT210	Open Source Operating Systems	1 1 2 C 2
	Installing and configuring open-source operating system software, creating user and group accounts, using open-source operating system editors, performing shell operations, sharing files and directories.	
OBT212	Business Management	2 1 3 C 4
	Basic concepts of business and management, goals and relationships with the environment, classification of businesses, establishment goals, size and capacity, business functions, operation of organizations. Feasibility study.	
OBT224	Computerized Control	1 1 2 C 2
	Aimed at providing students with knowledge, experience, and skills in programming and coding for mobile devices and technologies, mobile communication protocols, technologies, and architectures. Learning major operating systems, hardware and software architectures on mobile devices. Learning mobile communication technology and protocols.	

Code	Course Name	T U K C/S ECTS
OBP222	Professional Practice Training-II	3 1 4 C 4
	Includes a fourteen-week workplace training for one working day at a business related to professional practice education. Introduction to industrial fields, demonstration of production stages, observation of working conditions of suitable companies, sharing work experiences, introduction of companies in the industry.	
OBT230	Quality Assurance System	2 0 2 E 2
	Acquiring competencies related to quality assurance and standards in business life, understanding the importance of the concept of quality, standards, and standardization in the production and service sector, and understanding management quality and standards.	
OBT228	Accounting Programs-II	2 0 2 E 2
	Installing and using package programs. Financial taxation and calculation operations. Excel applications and usage for businesses and financial structures. Using Excel macros and designing algorithms.	