

**DESCRIPTION FORM OF COURSE**

<b>Course Code and Name: YDİ 131.1. ENGLISH -2</b>				<b>Program: Accounting and Tax Applications Program</b>			
<b>Semester</b>	<b>Theory</b>	<b>Prac.</b>	<b>Total</b>	<b>Credits</b>	<b>ECTS</b>	<b>Language of Course</b>	<b>Course Type Compulsory/Elective</b>
Fall Semester	2	0	2	2	2	Turkish	Compulsory
<b>Prerequisites of Course</b>		There are no prerequisites.					
<b>Course Instructor</b>		Lecturer Suat ARSLANOĞLU		<b>Mail :</b> suatarlanoglu@munzur.edu.tr <b>Web :</b> <a href="https://www.munzur.edu.tr/birimler/akademik/myo/tmyo/bolumler/yabanc%C4%B1Kultur/Pages/akadro.aspx">https://www.munzur.edu.tr/birimler/akademik/myo/tmyo/bolumler/yabanc%C4%B1Kultur/Pages/akadro.aspx</a>			
<b>Aims of Course</b>		It aims to provide students with information about English grammar and vocabulary and to enable them to use these in daily life.					
<b>Course Learning Outcomes and Competencies</b>		1. Will be able to learn the tenses used in English. 2. Will be able to make dialogues in English and use the tenses he/she learned. 3. Will be able to read English texts. 3.1. Reads and comments on English stories. 3.2. Reads English newspaper articles. Translates them into Turkish.					
<b>Textbooks and /or Other Required Materials</b>		Images/visuals, slides, videos and lecture notes on the course content.					
<b>Method of delivery of the course</b>		Online					
<b>Teaching Methods and Techniques</b>		Explanation, Question-Answer					

<b>Evaluation Criteria</b>		<b>If yes, please mark (X)</b>	<b>Percentage (%) Contribution to the Overall Average</b>
	<b>1. Midterm Exam</b>	X	<b>40</b>
	<b>2. Midterm Exam</b>		
	<b>3. Midterm Exam</b>		

	<b>Oral Exam</b>		
	<b>Practical Exam (Lab, Project etc.)</b>		
	<b>Semester Final Exam</b>	<b>X</b>	<b>60</b>

<b>Semester Course Plan</b>	
<b>Week</b>	<b>Syllabus</b>
<b>1</b>	Present Form of 'to be'
<b>2</b>	Subject Pronouns, Countries and Nationalities
<b>3</b>	Family Members, Possesive Adjectives
<b>4</b>	Possesive Case, Have got/Has got, Adjectives
<b>5</b>	Singular&Plural Nouns& a/an, This/That/These/Those, Countable&Uncountable Nouns
<b>6</b>	Some&Any&How much&How many
<b>7</b>	Revision
<b>8</b>	Midterm Exam
<b>9</b>	Parts of the House&Furniture, There is/There are, Prepositions of Place, Can/Can't
<b>10</b>	Telling the Time, Days& Months, Prepositions of Time
<b>11</b>	The Simple Present Tense
<b>12</b>	Adverbs of Frequency, Object Pronouns
<b>13</b>	Reading, analyzing, interpreting, and evaluating English texts
<b>14</b>	General Revision
<b>15</b>	Final exam

**DESCRIPTION FORM OF COURSE**

<b>Course Code and Name: TTİ103 Building Technology I</b>				<b>Program: Construction Technology</b>			
<b>Semester</b>	<b>Theory</b>	<b>Prac.</b>	<b>Total</b>	<b>Credits</b>	<b>ECTS</b>	<b>Language of Course</b>	<b>Course Type Compulsory/Elective</b>
Fall Semester	2	0	2	2	3	Turkish	Compulsory
<b>Prerequisites of Course</b>		There are no prerequisites.					
<b>Course Instructor</b>		Öğr. Gör. Nida SAATCI ÇELİK		<b>Mail :</b> nidacelik@munzur.edu.tr <b>Web :</b> <a href="http://www.munzur.edu.tr/birimler/akademik/myo/tmyo/bolumler/insaatBolum/Pages/akadro.aspx">www.munzur.edu.tr/birimler/akademik/myo/tmyo/bolumler/insaatBolum/Pages/akadro.aspx</a>			
<b>Aims of Course</b>		It aims to know all the stages of a building construction from foundation to roof and to know the current building materials.					
<b>Course Learning Outcomes and Competencies</b>		1. To be able to define structures and structure classes. 2. To be able to understand underground works such as excavation, fortification, drainage and foundation. 3. To be able to understand above ground works such as walls, wall types and masonry rules, chimneys, stairs and roofs. 4. To be able to understand covering with natural and artificial materials (interior and exterior plaster, whitewash, plastic and oil paint, tile, tiles, wooden parquet, etc.). 5. To be able to recognize and correctly apply modern construction methods and building materials.					
<b>Textbooks and /or Other Required Materials</b>		AVCIOĞLU M., Construction Technology I Birsen Publishing House 2011.					
<b>Method of delivery of the course</b>		Face to face, Online					
<b>Teaching Methods and Techniques</b>		Oral Expression, Presentation					

<b>Evaluation Criteria</b>		<b>If yes, please mark (X)</b>	<b>Percentage (%) Contribution to the Overall Average</b>
	<b>4. Midterm Exam</b>	X	<b>40</b>
	<b>5. Midterm Exam</b>		
	<b>6. Midterm Exam</b>		
	<b>Oral Exam</b>		
	<b>Practical Exam (Lab, Project etc.)</b>		
	<b>Semester Final Exam</b>	X	<b>60</b>

**Semester Course Plan**

<b>Week</b>	<b>Syllabus</b>
1	Structure
2	Classification of Structures
3	Reinforcement
4	Application and Rope Scaffolding
5	Normal and Pressed Brick Wall
6	Walling Types
7	Aerated Concrete Wall
8	Midterm Exam
9	Plaster Wall
10	Retaining Walls
11	Foundations
12	Roofs
13	Staircases
14	Chimneys
15	Final Exam

**DESCRIPTION FORM OF COURSE**

<b>Course Code and Name: TTİ101 Structural Statics I</b>				<b>Program: _Construction Technology</b>			
<b>Semester</b>	<b>Theory</b>	<b>Prac.</b>	<b>Total</b>	<b>Credits</b>	<b>ECTS</b>	<b>Language of Course</b>	<b>Course Type Compulsory/Elective</b>
Autumn	3	0	3	3	4	Türkisch	Compulsory
<b>Prerequisites of Course</b>		There are not prerequisites.					
<b>Course Instructor</b>		Lecturer Zülfü Murat DOĞAN			<b>Mail:</b> <a href="mailto:zmdogan@munzur.edu.tr">zmdogan@munzur.edu.tr</a> <b>Web:</b> <a href="https://www.munzur.edu.tr/birimler/akademik/myo/tmyo/bolumler/insaatBolum/Pages/akadro.aspx">https://www.munzur.edu.tr/birimler/akademik/myo/tmyo/bolumler/insaatBolum/Pages/akadro.aspx</a>		
<b>Aims of Course</b>		With this course, the student will be able to make basic calculations necessary for the design of structural elements.					
<b>Course Learning Outcomes and Competencies</b>		<p>1. Will be able to have information about systems and loads that can define statics.</p> <p>1.1 Recognize internal forces</p> <p>1.2 Recognize external forces</p> <p>2. Will write equilibrium equations and will have information about supports.</p> <p>2.1 Learn spatial and planar equilibrium equations</p> <p>2.2 Know the definition, effect and signs of moment</p> <p>2.3 Calculates the internal force equilibrium equations that will occur in the support</p> <p>3. Will be able to make static calculations of isostatic beams</p> <p>3.1 Know the loads acting on the beam</p> <p>3.2 Write the support reactions and make the necessary calculations</p> <p>3.3 Calculate the internal forces in the beam and draw the section force and moment change diagrams</p> <p>4. Will be able to recognize broken beams and frames and make the necessary calculations</p> <p>4.1 Solve the loads acting on the frame and the equilibrium equations resulting from these loads</p> <p>4.2 Calculate the internal force changes in the frames and draw the necessary section effect diagrams</p>					

<b>Textbooks and /or Other Required Materials</b>	KARADUMAN Mustafa, ISBN:978-975-591520-3, Nobel Yayınları, Ankara 2003, Yapı Statiği 1-2 KASIMZADE A. Azer, ISBN:975-511-380-0, Birsen Yayınları, İstanbul 2004, Yapı Statiği HAKTANIR Turgut, ISBN: 975-6574-33-X, Atlas Yayınları, Ankara 2003, Çözümlü Statik Problemleri
<b>Method of delivery of the course</b>	Face to face / Online
<b>Teaching Methods and Techniques</b>	Expression, Presentation, Demonstration

<b>Evaluation Criteria</b>		<b>If yes, please mark (X)</b>	<b>Percentage (%) Contribution to the Overall Average</b>
	<b>7. Midterm Exam</b>	X	<b>40</b>
	<b>8. Midterm Exam</b>		
	<b>9. Midterm Exam</b>		
	<b>Oral Exam</b>		
	<b>Practical Exam (Lab, Project etc.)</b>		
	<b>Semester Final Exam</b>	X	<b>60</b>

<b>Semester Course Plan</b>	
<b>Week</b>	<b>Syllabus</b>
<b>1</b>	Definition and Analysis (Definition and Branches of Statics)
<b>2</b>	Loads Based on Structural Statics
<b>3</b>	Equilibrium Equations
<b>4</b>	Equilibrium Equations (Sample Problem Solution)
<b>5</b>	Types of Support Definition and Where They Are Used.
<b>6</b>	Loads That Will Occur on the Support and the Behavior of the Support Against These Loads and Sample Problems
<b>7</b>	Beam Definition and Types,
<b>8</b>	Static Calculations of Isostatic Beams, Loads Affecting the Beam, Support Reactions,
<b>9</b>	Internal Force Analysis and Calculation and Drawing of Section Force Diagrams

<b>10</b>	Sample Problems
<b>11</b>	Sample Problems
<b>12</b>	Frames Definition and Types, Calculation Principles of Support Reactions
<b>13</b>	Drawing of Section Influence Diagrams
<b>14</b>	Sample Problems
<b>15</b>	Final Exam

**DESCRIPTION FORM OF COURSE**

<b>Course Code and Name: TTİ102 Structural Statics II</b>				<b>Program: _Construction Technology</b>			
<b>Semester</b>	<b>Theory</b>	<b>Prac.</b>	<b>Total</b>	<b>Credits</b>	<b>ECTS</b>	<b>Language of Course</b>	<b>Course Type Compulsory/Elective</b>
Spring	3	0	3	3	4	Türkisch	Compulsory
<b>Prerequisites of Course</b>		There are not prerequisites.					
<b>Course Instructor</b>		Lecturer Zülfü Murat DOĞAN			<b>Mail:</b> <a href="mailto:zmdogan@munzur.edu.tr">zmdogan@munzur.edu.tr</a> <b>Web:</b> <a href="https://www.munzur.edu.tr/birimler/akademik/myo/tmyo/bolumler/insaatBolum/Pages/akadro.aspx">https://www.munzur.edu.tr/birimler/akademik/myo/tmyo/bolumler/insaatBolum/Pages/akadro.aspx</a>		
<b>Aims of Course</b>		With this course, students will be able to recognize and analyze Gerber systems and truss systems, which have many applications. They will be able to solve truss systems used in construction and analyze three-joint systems. They will be able to use the office and cross methods in beams and perform moment balancing.					
<b>Course Learning Outcomes and Competencies</b>		<p>1. Will be able to learn about Gerber beams and apply solution principles to the problems encountered.</p> <p>1.1 Recognize Gerber beams</p> <p>1.2 Can make joint placement for solution in Gerber beams</p> <p>1.3 Can propose solutions for different loading situations encountered regarding Gerber beams and solve the problem</p> <p>2. Will know what truss systems are and where they are used and will be able to solve problems related to the subject.</p> <p>2.1 Knows what plane truss systems are</p> <p>2.2 Can make analysis by applying the cutting and node method in plane truss systems</p> <p>2.3 Knows space truss systems and can make the necessary analysis</p> <p>3. Will be able to solve hyperstatic systems.</p> <p>4. Will be able to balance the moments occurring at the support heads using the office and cross methods.</p> <p>4.1 Find the necessary section effects in Gerber beams and draw plane lines</p> <p>4.2 Calculates the röder calculations, distribution coefficients and moment values in the openings</p> <p>4.3 Calculates the fixed end moments in beams and makes moment balance</p>					
<b>Textbooks and /or Other Required Materials</b>		KARADUMAN Mustafa, ISBN:978-975-591520-3, Nobel Yayınları, Ankara 2003, Yapı Statiği 1-2 KASIMZADE A. Azer, ISBN:975-511-380-0, Birsen Yayınları, İstanbul 2004, Yapı Statiği HAKTANIR Turgut, ISBN: 975-6574-33-X, Atlas Yayınları, Ankara 2003, Çözümlü Statik Problemleri					
<b>Method of delivery of the</b>		Face to face / Online					

<b>course</b>	
<b>Teaching Methods and Techniques</b>	Expression, Presentation, Demonstration

<b>Evaluation Criteria</b>		<b>If yes, please mark (X)</b>	<b>Percentage (%) Contribution to the Overall Average</b>
	<b>10. Midterm Exam</b>	X	<b>40</b>
	<b>11. Midterm Exam</b>		
	<b>12. Midterm Exam</b>		
	<b>Oral Exam</b>		
	<b>Practical Exam (Lab, Project etc.)</b>		
	<b>Semester Final Exam</b>	X	<b>60</b>

<b>Semester Course Plan</b>	
<b>Week</b>	<b>Syllabus</b>
<b>1</b>	Definition and Analysis (Gerber Beams)
<b>2</b>	Gerber Beams joint placement and solution principles.
<b>3</b>	Gerber beams sample problem solutions.
<b>4</b>	Gerber beams sample problem solutions.
<b>5</b>	Definition, Types and Where They Are Used in Truss Systems.
<b>6</b>	Solution principles of plane truss systems.
<b>7</b>	Sample problem solution for plane truss systems.
<b>8</b>	Sample problem solution for plane truss systems.
<b>9</b>	Definition, solution principles of three-joint systems.
<b>10</b>	Sample problem solution for three-joint systems.
<b>11</b>	Office and cross method in plane beams.
<b>12</b>	Röder, span moment, fixed end moments distribution coefficient calculations in supports.
<b>13</b>	Sample problem solution
<b>14</b>	Sample problem solution



**DESCRIPTION FORM OF COURSE**

<b>Course Code and Name: TTİ 123 Materials Science and Building Materials</b>				<b>Program: _Construction Technology</b>			
Semester	Theory	Prac.	Total	Credits	ECTS	Language of Course	Course Type Compulsory/Elective
Fall Semester	2	0	2	3	4	Türkisch	Compulsory
<b>Prerequisites of Course</b>		There are not prerequisites.					
<b>Course Instructor</b>		Assoc. Prof. Dr. Melek AKGÜL		<b>Mail :</b> melekakgul@munzur.edu.tr <b>Web :</b> www.munzur.edu.tr			
<b>Aims of Course</b>		This course aims to understand the relationship between the structural properties of basic material groups and their physical, chemical and mechanical properties and to recognize basic building materials.					
<b>Course Learning Outcomes and Competencies</b>		<ol style="list-style-type: none"> <li>1. To be able to comprehend atom, movement of atoms, arrangement of atoms, interatomic bonds and their effects on material properties.</li> <li>2. To be able to comprehend the general properties of materials for appropriate and economical material selection and to apply the basic principles of test methods to be used in determining material properties.</li> <li>3. To be able to comprehend basic information about the types of materials used in construction.</li> <li>4. To be able to test the properties of different types of building materials.</li> <li>5. To be able to describe the performance, structure and property relationships between all types of materials.</li> <li>6. Understand stress-strain and related mechanical and physical properties of materials.</li> </ol>					
<b>Textbooks and /or Other Required Materials</b>		Şimşek, O. Materials Science and Building Materials. Seçkin publishing					
<b>Method of delivery of the course</b>		Face to face / Online					
<b>Teaching Methods and Techniques</b>		Presentation, expression					

<b>Evaluation Criteria</b>		<b>If yes, please mark (X)</b>	<b>Percentage (%) Contribution to the Overall Average</b>
	<b>13. Midterm Exam</b>	X	40
	<b>14. Midterm Exam</b>		
	<b>15. Midterm Exam</b>		

	<b>Oral Exam</b>		
	<b>Practical Exam (Lab, Project etc.)</b>		
	<b>Semester Final Exam</b>	X	<b>60</b>

<b>Semester Course Plan</b>	
<b>Week</b>	<b>Syllabus</b>
<b>1</b>	Definition, classification and sampling methods of building materials.
<b>2</b>	Determination of physical, chemical and mechanical properties.
<b>3</b>	Methods of determination of physical, chemical and mechanical properties.
<b>4</b>	Determine the components of concrete.
<b>5</b>	To identify metal and wood materials.
<b>6</b>	To identify metal and wood materials.
<b>7</b>	Identify wall components, flooring and roofing materials.
<b>8</b>	Midterm
<b>9</b>	Thermal insulation materials.
<b>10</b>	Sound insulation materials.
<b>11</b>	Waterproofing materials.
<b>12</b>	Fire insulation materials.
<b>13</b>	Covering materials.
<b>14</b>	Covering materials.

**COURSE DESCRIPTION FORM**

<b>Course Code and Name: TTİ 121 Technical Drawing</b>				<b>Program: Construction Technology Program</b>			
Semester	Theory	Application.	Sum	Loans	ECTS	Course Language	Course Type: Compulsory/Elective
Fall	1	2	3	3	3	Turkish	Imperative
<b>Course Prerequisites</b>		There are no prerequisites.					
<b>Course Instructor</b>		Lecturer. Zülfükar AKSAĞAN		E-mail : zulfukaraksagan@munzur.edu.tr Web : www.munzur.edu.tr			
<b>Course Objectives</b>		Must know the drawing knowledge required for vocational courses and the materials they will need					
<b>Course Learning Outcomes and Competencies</b>		<ol style="list-style-type: none"> <li>1. Learn the use of drawing tools used in technical drawing course. <ol style="list-style-type: none"> <li>1.1. Learns the names and functions of drawing tools.</li> <li>1.2. Have knowledge about technical drawing pencils and drawing papers.</li> </ol> </li> <li>2. Learn the drawing of geometric shapes. <ol style="list-style-type: none"> <li>2.1. Learn where to start in complex geometric drawings.</li> <li>2.2. Can make dimensions.</li> </ol> </li> <li>3. Appearance methods will be taught. <ol style="list-style-type: none"> <li>3.1. It is ensured that they use their imagination.</li> <li>3.2. Extracts appearances.</li> <li>3.3. Can use drawing programs.</li> </ol> </li> </ol>					
<b>Textbooks and/or Other Necessary Materials</b>		İsmet Daniş- Construction Technical Drawing-Istanbul-2004					
<b>How the course is presented</b>		Face-to-face, Online					
<b>Teaching Methods and Techniques</b>		Presentation, narration, drawing					

<b>Evaluation Criteria</b>		<b>If yes, please tick (X).</b>	<b>Percentage (%) Contribution to the Overall Average</b>
	<b>16. Midterm Exam</b>	X	<b>40</b>
	<b>17. Midterm Exam</b>		
	<b>18. Midterm Exam</b>		
	<b>Oral Exam</b>		

	<b>Practical Exam (Laboratory, Project, etc.)</b>	X	<b>60</b>
	<b>Final Exam</b>		

<b>Semester Curriculum</b>	
<b>Week</b>	<b>Curriculum</b>
<b>1</b>	Use of demonstration and technical drawing tools
<b>2</b>	Geometric drawings
<b>3</b>	Geometric drawings
<b>4</b>	Scale and scale
<b>5</b>	Scans and display of symbols
<b>6</b>	Appearance extraction
<b>7</b>	Appearance extraction
<b>8</b>	Midterm Exam
<b>9</b>	Perspective
<b>10</b>	Parallel perspective
<b>11</b>	Types of sections
<b>12</b>	Examples of cross-sections
<b>13</b>	Draw cross-sections and views with examples
<b>14</b>	Draw cross-sections and views with examples

**DESCRIPTION FORM OF COURSE**

<b>Course Code and Name: AIT102 Atatürk's First and Revolution History-II</b>				<b>Program: Laboratory Technology</b>			
Semester	Theory	Prac.	Total	Credits	ECTS	Language of Course	Course Type Compulsory/Elective
Spring	2	0	2	2	2	Türkisch	Compulsory
<b>Prerequisites of Course</b>		There are no prerequisites.					
<b>Course Instructor</b>		Lecturer Adem KIZKAPAN			<b>Mail :</b> akizkapan@munzur.edu.tr <b>Web :</b> <a href="https://www.munzur.edu.tr/birimler/akademik/myo/tmyo/bolumler/tibbi/Pages/akadro.aspx">https://www.munzur.edu.tr/birimler/akademik/myo/tmyo/bolumler/tibbi/Pages/akadro.aspx</a>		
<b>Aims of Course</b>		Understanding the Turkish National Struggle and Atatürk's Principles and Revolutions					
<b>Course Learning Outcomes and Competencies</b>		1. Have knowledge about Ataturk's reforms 2. Have knowledge about the Turkish Foreign Policy in Ataturk's period 3. Have knowledge about Ataturk's principles 4. Have basic level of knowledge about the political developments in Turkey and the world during and after the Second World War.					
<b>Textbooks and /or Other Required Materials</b>		Images/visuals, slides, videos and lecture notes on the course content. Speech; Publication of the Ministry of Culture and Tourism of the Republic of Turkey Ataturk's Principles and History of Revolution I-II, Council of Higher Education, Ankara, 1986.					
<b>Method of delivery of the course</b>		Face to face / Online					
<b>Teaching Methods and Techniques</b>		Explanation, Question-Answer, Presentation					

		If yes, please mark (X)	Percentage (%) Contribution to the Overall Average
<b>Evaluation Criteria</b>	<b>19. Midterm Exam</b>	X	40
	<b>20. Midterm Exam</b>		
	<b>21. Midterm Exam</b>		

	<b>Oral Exam</b>		
	<b>Practical Exam (Lab, Project etc.)</b>		
	<b>Semester Final Exam</b>	X	<b>60</b>

<b>Semester Course Plan</b>	
<b>Week</b>	<b>Syllabus</b>
<b>1</b>	Revolutionary Movements in the Political Field
<b>2</b>	Revolutionary Movements in the Legal Field
<b>3</b>	Revolutionary Movements in the Education and Culture Field
<b>4</b>	Regulation of Social Life, Developments in the Economic Field, Health Services, Turkish Foreign Policy in the Atatürk Period
<b>5</b>	Principles on which the Turkish Revolution is based and the characteristics of the Turkish Revolution
<b>6</b>	Republicanism, Nationalism and Populism
<b>7</b>	Secularism
<b>8</b>	Midterm
<b>9</b>	Statism, Revolutionaryism
<b>10</b>	National Sovereignty, National Independence
<b>11</b>	National Unity and Solidarity, Territorial Integrity, Peacemaking
<b>12</b>	Scientificity, Rationalism, Modernity and Westernization, Humanity and Love of Humanity, Characteristics of the Turkish Revolution
<b>13</b>	Death of Atatürk, Aspects at Home and Abroad
<b>14</b>	Developments After World War II
<b>15</b>	Final exam

**DESCRIPTION FORM OF COURSE**

<b>Course Code and Name:</b> ENF101.1 Introduction to Computers				<b>Program:</b> Accounting and Tax Applications Program			
Semester	Theory	Prac.	Total	Credits	ECTS	Language of Course	Course Type Compulsory/Elective
1	1	2	3	3	3	Turkish	Compulsory
<b>Prerequisites of Course</b>		There are no prerequisites.					
<b>Course Instructor</b>		Lecturer Enver YAZĞILI		<b>Mail :</b> enveryazgili@munzur.edu.tr <b>Web :</b> <a href="https://www.munzur.edu.tr/birimler/akademik/myo/tmyo/bolumler/bilgisayarTekno/Pages/akadro.aspx">https://www.munzur.edu.tr/birimler/akademik/myo/tmyo/bolumler/bilgisayarTekno/Pages/akadro.aspx</a>			
<b>Aims of Course</b>		To promote the use of Information Technologies, improve computer literacy, and provide experience in operating systems, computer hardware, input-output devices, word processing, spreadsheets, and presentation preparation.					
<b>Course Learning Outcomes and Competencies</b>		<ol style="list-style-type: none"> <li>1. Will recognize fundamental concepts of Information Technologies in detail</li> <li>2. Will understand hardware and software components of a computer system in detail</li> <li>3. Will be proficient at a basic level in the purpose and use of operating systems</li> <li>4. Will be able to use a word processor software to meet professional needs</li> <li>5. Will be able to use spreadsheet software to meet professional needs</li> <li>6. Will be able to use presentation software to meet professional needs</li> </ol>					
<b>Textbooks and /or Other Required Materials</b>		Instructor's notes					
<b>Method of delivery of the course</b>		Face to face, Online					
<b>Teaching Methods and Techniques</b>		Explanation, question-answer, presentation, practice, analysis					

		If yes, please mark (X)	Percentage (%) Contribution to the Overall Average
<b>Evaluation Criteria</b>	<b>1. Midterm Exam</b>	X	<b>40</b>
	<b>2. Midterm Exam</b>		
	<b>3. Midterm Exam</b>		

	<b>Oral Exam</b>		
	<b>Practical Exam (Lab, Project etc.)</b>		
	<b>Semester Final Exam</b>	X	<b>60</b>

<b>Semester Course Plan</b>	
<b>Week</b>	<b>Syllabus</b>
<b>1</b>	Definition and Historical Development of Computers
<b>2</b>	Computer hardware components
<b>3</b>	Input Devices
<b>4</b>	Output Devices
<b>5</b>	System and Application Software
<b>6</b>	Operating Systems
<b>7</b>	Utility Programs
<b>8</b>	Midterm Exam
<b>9</b>	Windows Operating System
<b>10</b>	Introduction to and basic usage of Microsoft Office Word
<b>11</b>	Data entry and formatting in Word; document editing and adding images, tables, etc.
<b>12</b>	Introduction to and usage of Microsoft PowerPoint; slide design and special animations
<b>13</b>	Introduction to and basic usage of Microsoft Office Excel
<b>14</b>	Data entry and formatting in Excel; use of formulas, functions, and charts in spreadsheets
<b>15</b>	Final exam

**DESCRIPTION FORM OF COURSE**

<b>Course Code and Name: GTİ101 General and Technical Communication</b>				<b>Program: _Construction Technology</b>			
<b>Semester</b>	<b>Theory</b>	<b>Prac.</b>	<b>Total</b>	<b>Credits</b>	<b>ECTS</b>	<b>Language of Course</b>	<b>Course Type Compulsory/Elective</b>
Spring	2	0	2	2	2	Türkisch	Compulsory
<b>Prerequisites of Course</b>		There are not prerequisites.					
<b>Course Instructor</b>							
<b>Aims of Course</b>		To develop students' oral and written communication skills. To be able to apply the principles of correspondence related to professional issues. To be able to compare communication techniques and apply the appropriate one.					
<b>Course Learning Outcomes and Competencies</b>		<p>1. Will express information about the necessity of communication.</p> <p>1.1. Defines communication.</p> <p>1.2. Explains the importance of communication.</p> <p>2. Will express information about the interpretation of the effects of verbal communication in daily life.</p> <p>2.1. Defines verbal communication.</p> <p>2.2. Understands the types and importance of verbal communication.</p> <p>3. Will have information about the types of in-house letters, the introduction and application of general purpose business letters and will express it.</p> <p>3.1. Has knowledge of in-house correspondence.</p> <p>3.2. Has knowledge of inter-institutional correspondence.</p>					
<b>Textbooks and /or Other Required Materials</b>		M. TUNA, A. A. TUNA, Büro Yönetimi ve İletişim Teknikleri TUTAR H., <b>Genel ve Teknik İletişim</b> , seçkin yayınevi, Ankara, 2005					
<b>Method of delivery of the course</b>		Face to face / Online					
<b>Teaching Methods and Techniques</b>		Expression, Presentation, Demonstration					

		<b>If yes, please mark (X)</b>	<b>Percentage (%) Contribution to the</b>
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<b>Evaluation Criteria</b>			<b>Overall Average</b>
	<b>22. Midterm Exam</b>	X	<b>40</b>
	<b>23. Midterm Exam</b>		
	<b>24. Midterm Exam</b>		
	<b>Oral Exam</b>		
	<b>Practical Exam (Lab, Project etc.)</b>		
	<b>Semester Final Exam</b>	X	<b>60</b>

<b>Semester Course Plan</b>	
<b>Week</b>	<b>Syllabus</b>
<b>1</b>	Definition and basic concepts of communication
<b>2</b>	Communication process, importance of communication for society and individuals, necessity of communication
<b>3</b>	Explanation and comparison of communication types
<b>4</b>	Principles of verbal communication, body language
<b>5</b>	Application of verbal communication techniques individually and in groups, interpretation of the effects of verbal communication in daily life
<b>6</b>	Types of writing encountered in social life
<b>7</b>	Types of in-house writings, introduction and application of general purpose business letters
<b>8</b>	Differences between social content writings and professional writings, communication techniques to be applied in professional life
<b>9</b>	Preparation and reading of sample writings related to own branch
<b>10</b>	Communication process and types.
<b>11</b>	Organizational communication.
<b>12</b>	Effective communication methods.
<b>13</b>	Correspondence techniques.
<b>14</b>	Correspondence process.
<b>15</b>	Final exam

**DESCRIPTION FORM OF COURSE**

<b>Course Code and Name: GÖN101 Volunteering Activities 1</b>				<b>Program: Buildings Technology</b>			
<b>Semester</b>	<b>Theory</b>	<b>Prac.</b>	<b>Total</b>	<b>Credits</b>	<b>ECTS</b>	<b>Language of Course</b>	<b>Course Type Compulsory/Elective</b>
Fall Semester	2	0	2	2	2	Türkisch	Selective
<b>Prerequisites of Course</b>		There are no prerequisites.					
<b>Course Instructor</b>		Lecturer Kürşat KAYMAZ		<b>Mail :</b> k kaymaz@munzur.edu.tr <b>Web :</b> <a href="https://www.munzur.edu.tr/birimler/akademik/myo/tmyo/bolumler/insaatBolum/Pages/akadro.aspx">https://www.munzur.edu.tr/birimler/akademik/myo/tmyo/bolumler/insaatBolum/Pages/akadro.aspx</a>			
<b>Aims of Course</b>		The goal is to strengthen the bonds between the university and society by utilizing the knowledge, skills, and experience students acquire throughout their education. It aims to raise students' awareness of humanitarian, social, and economic issues. It aims to develop students' human, social, cultural, and moral values and skills through volunteering activities. It aims to encourage students to volunteer in a chosen field of volunteering, based on a pre-planned plan, for a semester, and to share their findings.					
<b>Course Learning Outcomes and Competencies</b>		1. Learns about volunteering and teamwork. 2. Identifies organizations that provide volunteer services. 3. Develops social awareness within themselves and their community. 4. Develops appropriate projects and solutions for target audiences.					
<b>Textbooks and /or Other Required Materials</b>		Kuzucu, K., & Kamer, S. T. Community Service Practices, Pegem Academy 2009. Coşkun, H. Community Service Practices, Anı Publishing, Ankara 2009; Aksoy, B., Çetin, T., Sönmez, Ö.F., (Eds.), Community Service Practices. Pegem Academy Publishing 2009.					
<b>Method of delivery of the course</b>		Face to face, Online					
<b>Teaching Methods and Techniques</b>		Explanation, question-answer, presentation					

		<b>If yes, please mark (X)</b>	<b>Percentage (%) Contribution to the Overall Average</b>
<b>Evaluation Criteria</b>	<b>25. Midterm Exam</b>	X	<b>40</b>
	<b>26. Midterm Exam</b>		
	<b>27. Midterm Exam</b>		

	<b>Oral Exam</b>		
	<b>Practical Exam (Lab, Project etc.)</b>		
	<b>Semester Final Exam</b>	X	<b>60</b>

<b>Semester Course Plan</b>	
<b>Week</b>	<b>Syllabus</b>
<b>1</b>	What is volunteering? What are its benefits for individuals?
<b>2</b>	The Concept, Purpose, and Importance of Corporate Volunteering
<b>3</b>	The Concept of Civil Society and NGOs, Basic Volunteering Areas
<b>4</b>	Basic Volunteering Areas
<b>5</b>	Moral (ethical), traditional values, and principles in volunteer work, Volunteering participation in public institutions, local governments, and non-governmental organizations
<b>6</b>	Examination of successful examples of volunteering implemented globally and in Turkey
<b>7</b>	Volunteer motivation
<b>8</b>	Midterm Exam
<b>9</b>	Providing information about general project management for volunteer project development.
<b>10</b>	What is a Project? What is the Project Cycle? What are the Reasons for Project Failure?
<b>11</b>	Establishing a project team and soliciting topic proposals.
<b>12</b>	Discussing examples of volunteer work practices.
<b>13</b>	Implementation
<b>14</b>	Implementation
<b>15</b>	Final exam

**DESCRIPTION FORM OF COURSE**

<b>Course Code and Name: TBM153 MATEMATİK I</b>				<b>Program: Accounting and Tax Applications Program</b>			
<b>Semester</b>	<b>Theory</b>	<b>Prac.</b>	<b>Total</b>	<b>Credits</b>	<b>ACTS</b>	<b>Language of Course</b>	<b>Course Type Compulsory/Elective</b>
Fall Semester	2	0	2	2	4	Turkish	Compulsory
<b>Prerequisites of Course</b>		There are no prerequisites.					
<b>Course Instructor</b>		Lecturer Muhlis ÇETİN			<b>Mail:</b> muhliscetin@munzur.edu.tr <b>Web:</b> <a href="https://www.munzur.edu.tr/birimler/akademik/myo/tmyo/bolumler/muhasebeVergi/Pages/akadro.aspx">https://www.munzur.edu.tr/birimler/akademik/myo/tmyo/bolumler/muhasebeVergi/Pages/akadro.aspx</a>		
<b>Aims of Course</b>		To provide students with sufficient mathematical knowledge to solve the problems they encounter and to develop students' ability to think analytically and produce solutions to problems.					
<b>Course Learning Outcomes and Competencies</b>		<p>1. Explain numbers and number sets.</p> <p>1.1. Explains the positive natural number power of a natural number and shows the accuracy of the properties of exponential expressions.</p> <p>1.2. Explains the concept of prime numbers and the fact that numbers are relatively prime with examples, divides a natural number into its prime factors and finds the number of its positive divisors.</p> <p>1.3. Performs addition, subtraction, multiplication and division operations on the set of integers and specifies the properties of addition and multiplication operations.</p> <p>2. Demonstrates the properties of operations in modular arithmetic and will be able to perform operations.</p> <p>2.1. Explains the concept of module with examples, specifies the concept of remainder class (equivalence class) and the set of remainder classes (<math>Z/m</math> set)</p>					

- according to division with integers.
- 2.2. Performs addition and multiplication operations on the set  $Z/m$  and specifies their properties.
3. Will be able to explain the absolute value of a real number and state the properties related to absolute value.
- 3.1. Knows the definition and properties of absolute value.
- 3.2. Solves problems using the properties of absolute value.
4. Will be able to explain square root and exponential expressions, state their properties and apply them.
- 4.1. Performs four operations on square root numbers.
- 4.2. Solves problems using the properties of exponents.
- 4.3. The properties of multiplication, division and powers of exponents are examined algebraically.
5. Explain ratio and proportion.
- 5.1. Shows the properties of proportion and solves problems related to daily life.
- 5.2. Reminds about ratio, proportion and properties of proportion.
6. Define functions
- 6.1. Finds the intervals in which the given function is defined and undefined.
- 6.2. Finds the inverse of the given function.
- 6.3. Defines the resultant function and explains its properties.

<b>Textbooks and /or Other Required Materials</b>	General Mathematics (M.BALCI), TYT-AYT Exam Entry Resources
<b>Method of delivery of the course</b>	Face to face, Online
<b>Teaching Methods and Techniques</b>	Explanation, question-answer, presentation, practice, analysis

<b>Evaluation Criteria</b>		<b>If yes, please mark (X)</b>	<b>Percentage (%) Contribution to the Overall Average</b>
	<b>28. Midterm Exam</b>	X	<b>40</b>
	<b>29. Midterm Exam</b>		
	<b>30. Midterm Exam</b>		
	<b>Oral Exam</b>		
	<b>Practical Exam (Lab, Project etc.)</b>		
	<b>Semester Final Exam</b>	X	<b>60</b>

<b>Semester Course Plan</b>	
<b>Week</b>	<b>Syllabus</b>
<b>1</b>	NUMBERS
<b>2</b>	Decimal numbers
<b>3</b>	Rational Numbers
<b>4</b>	exponents
<b>5</b>	radical numbers
<b>6</b>	Identities and Factorization
<b>7</b>	Absolute Value
<b>8</b>	midterm exam
<b>9</b>	simple inequality
<b>10</b>	ratio proportion

<b>11</b>	problems
<b>12</b>	problems
<b>13</b>	graphics problems
<b>14</b>	functions
<b>15</b>	Final exam

**DESCRIPTION FORM OF COURSE**

<b>Course Code and Name: TTİ 112 Computer Aided Drawing</b>				<b>Program: _Construction Technology</b>			
Semester	Theory	Prac.	Total	Credits	ECTS	Language of Course	Course Type Compulsory/Elective
Spring	1	2	3	3	2	Türkisch	Compulsory
<b>Prerequisites of Course</b>		There are not prerequisites.					
<b>Course Instructor</b>		Assoc. Prof. Dr. Melek AKGÜL		<b>Mail :</b> melekakgul@munzur.edu.tr <b>Web :</b> www.munzur.edu.tr			
<b>Aims of Course</b>		With this course, students; It is aimed to gain competencies related to drawing two-dimensional manufacturing / construction drawing and assembly drawing in accordance with technical drawing standards and rules using computer drawing software programs.					
<b>Course Learning Outcomes and Competencies</b>		<ol style="list-style-type: none"> <li>1. To be able to make basic geometric drawings on computer.</li> <li>2. To be able to draw adequate views on computer.</li> <li>3. To be able to draw three dimensional views on computer.</li> <li>4. To be able to draw structural elements using CAD commands.</li> </ol>					
<b>Textbooks and /or Other Required Materials</b>		Akgül, M. AutoCAD 2013 Temel Komutlar-Data publishing					
<b>Method of delivery of the course</b>		Face to face / Online					
<b>Teaching Methods and Techniques</b>		Expression, Presentation, Demonstration					

<b>Evaluation Criteria</b>		<b>If yes, please mark (X)</b>	<b>Percentage (%) Contribution to the Overall Average</b>
	<b>31. Midterm Exam</b>	X	<b>40</b>
	<b>32. Midterm Exam</b>		
	<b>33. Midterm Exam</b>		
	<b>Oral Exam</b>		
	<b>Practical Exam (Lab, Project etc.)</b>		
	<b>Semester Final Exam</b>	X	<b>60</b>

**Semester Course Plan**

<b>Week</b>	<b>Syllabus</b>
<b>1</b>	AutoCAD Interface Introduction and General Information, Cartesian Coordinate System, Snap, Grid, Ortho and Polar Tools - OSNAP - Smart Track Tool - DYN, LWT, TPY, QP and SC Tools
<b>2</b>	Drawing panel commands - Line and Polyline Commands - Methods of Converting Lines to Polylines, Circle Drawing Methods, Arc Drawing Commands
<b>3</b>	Drawing panel commands - Rectangle and Polygon Commands, Ellipse and Spline Commands, Hatch Command, Gradient Command
<b>4</b>	Edit panel commands, Copy and Move Commands, Rotate Command, Scale Command
<b>5</b>	Edit panel commands, Stretch Command, Mirror Command, Trim and Extend Commands
<b>6</b>	Edit panel commands, Fillet Command, Chamfer Command, Rectangular Array, Polar Array, Path Array
<b>7</b>	Application studies
<b>8</b>	Midterm Exam
<b>9</b>	Edit panel commands, Offset Command, Align Command, Explode, Join, Break and Break at Point, Draw Order, Hatch Edit, Polyline Edit, Spline Edit
<b>10</b>	Layers panel commands
<b>11</b>	Block panel commands
<b>12</b>	Annotation Panel, Text, Annotation Panel, Dimensions
<b>13</b>	Annotation Panel, Table
<b>14</b>	Application studies

**DESCRIPTION FORM OF COURSE**

<b>Course Code and Name: TTİ106 Concrete Technology</b>				<b>Program: Buildings Technology</b>			
<b>Semester</b>	<b>Theory</b>	<b>Prac.</b>	<b>Total</b>	<b>Credits</b>	<b>ECTS</b>	<b>Language of Course</b>	<b>Course Type Compulsory/Elective</b>
Fall Semester	3	0	3	3	4	Türkisch	Compulsory
<b>Prerequisites of Course</b>		There are no prerequisites.					
<b>Course Instructor</b>		Lecturer Kürşat KAYMAZ		<b>Mail :</b> k kaymaz@munzur.edu.tr <b>Web :</b> <a href="https://www.munzur.edu.tr/birimler/akademik/myo/tmyo/bolumler/insaatBolum/Pages/akadro.aspx">https://www.munzur.edu.tr/birimler/akademik/myo/tmyo/bolumler/insaatBolum/Pages/akadro.aspx</a>			
<b>Aims of Course</b>		To teach the general properties of the components that make up concrete and concrete mixture materials; to provide information about new developments in concrete technology.					
<b>Course Learning Outcomes and Competencies</b>		1. Learns the general properties of the components that make up concrete; develops knowledge and skills about new developments in concrete technology. 2. Has knowledge of the materials that make up concrete. 3. Learns aggregate technology, tests, and standards. 4. Learns the definitions of cement and cement test standards. 5. Can perform concrete mix calculations and analyses. 6. Learns fresh and hardened concrete technology, tests, and standards. 7. Examines new developments in concrete technology (related to ready-mixed concrete).					
<b>Textbooks and /or Other Required Materials</b>		Concrete and Concrete Technology Types-Properties-Experiments Osman Şimşek 6th. Edition, Seçkin Publishing, 2020.					
<b>Method of delivery of the course</b>		Face to face, Online					
<b>Teaching Methods and Techniques</b>		Explanation, question-answer, presentation, practice					

<b>Evaluation Criteria</b>		<b>If yes, please mark (X)</b>	<b>Percentage (%) Contribution to the Overall Average</b>
	<b>34. Midterm Exam</b>	X	40
	<b>35. Midterm Exam</b>		
	<b>36. Midterm Exam</b>		

	<b>Oral Exam</b>		
	<b>Practical Exam (Lab, Project etc.)</b>		
	<b>Semester Final Exam</b>	X	<b>60</b>

<b>Semester Course Plan</b>	
<b>Week</b>	<b>Syllabus</b>
<b>1</b>	General definitions and classification of concrete and the materials that make up concrete
<b>2</b>	Advantages and disadvantages of concrete, typical properties, historical development of cement and concrete, cements: composition of Portland cement, types of cement, description of special cements
<b>3</b>	Cements: properties expected from Portland cements; chemical expectations, physical expectations, setting time, fineness, volume stability, heat of hydration, strength, etc. analysis of properties.
<b>4</b>	Hydration of Portland cement, properties of hydration products, microstructure of cement paste, porosity of cement paste, capillary voids and gel/void and transition zone (ITZ) properties analysis
<b>5</b>	Explaining the properties and standards of aggregates used in concrete and their usage in concrete design.
<b>6</b>	Aggregate technology, application of tests and calculations
<b>7</b>	Explaining the analysis of mineral additives and cements with additives and concrete mixing water and maintenance water properties.
<b>8</b>	Midterm Exam
<b>9</b>	Aggregate properties required in concrete design (continued), durability of aggregate, non-standard aggregates, chemical admixtures: use in concrete, analysis of properties of water-reducing admixtures
<b>10</b>	Chemical admixtures: retarding admixtures, accelerating admixtures, corrosion inhibitor admixtures, waterproofing admixtures, viscosity increasing admixtures, antifreeze admixtures, air entraining admixtures, fresh concrete: definitions related to workability and consistency
<b>11</b>	Calculating concrete mix proportions
<b>12</b>	Calculating concrete mix proportions (continued)
<b>13</b>	Definitions of fresh concrete properties, maintenance of concrete: curing, steam curing, concrete production under adverse conditions
<b>14</b>	Compressive strength of concrete: affecting factors, flexural strength of concrete, tensile strength of concrete: direct tensile strength, splitting tensile strength, relationship between strengths, concepts related to the durability of concrete
<b>15</b>	Final exam

**DESCRIPTION FORM OF COURSE**

<b>Course Code and Name: TRD102 Turkish Language-II</b>				<b>Program: Laboratory Technology</b>			
Semester	Theory	Prac.	Total	Credits	ECTS	Language of Course	Course Type Compulsory/Elective
Spring	2	0	2	2	2	Türkisch	Compulsory
<b>Prerequisites of Course</b>		There are no prerequisites.					
<b>Course Instructor</b>		Lecturer Seval PERK			<b>Mail :</b> sperk@munzur.edu.tr <b>Web :</b> <a href="https://akademik.yok.gov.tr/AkademikArama/view/viewAuthor.jsp">https://akademik.yok.gov.tr/AkademikArama/view/viewAuthor.jsp</a>		
<b>Aims of Course</b>		To teach and/or remind the importance and subtleties of Turkish and to reinforce this with correct Turkish and its resources. In addition, to ensure that students use Turkish more consciously in daily conversations and correspondence throughout the course.					
<b>Course Learning Outcomes and Competencies</b>		1. Will be able to learn information for correct and proper expression. 1.1. Knows the importance of written expression and writes compositions. 1.2. Knows the rules of communication in oral expression. 2. Will be able to comprehend Turkish grammar. 2.1. Knows and applies sound events. 2.2. Understands morphology (root-stem-suffixes). 3. Will be able to analyze words in terms of their structure. 3.1. Develops and changes words. 3.2. Derives new words. 4. Uses the principles and techniques of speaking and discussion. 4.1. Applies Turkish spelling rules in speaking and discussion. 4.2. Can notice and correct expression errors in oral and written expressions.					
<b>Textbooks and /or Other Required Materials</b>		Zeynep Korkmaz ve ark., Türk Dili ve Kompozisyon Bilgileri, 6. Baskı, Ankara: Yargı Yayınevi, 2003. Yusuf Çotuksöken, Türk Dili, c. I-II, Papatya yay., 2003. Akın Önen, Türkçeyi Türkçe Konuşmak (Diksiyon - Spikerlik - Etkili Konuşma), İnkılap Yayınevi, İstanbul, 2007. Mustafa Durmuş, Türk Dili El Kitabı, Grafiker Yay., 2009. Muharrem Ergin, Türk Dil Bilgisi, Bayrak Basım Yayım Tanıtım, İstanbul, İbrahim Delice, Türkçe Sözdizimi, Kitabevi Yay., 2007.					
<b>Method of delivery of the course</b>		Face to face / Online					
<b>Teaching Methods and Techniques</b>		Explanation, Question-Answer, Discussion, Brainstorming, Individual Work, Team/Group Work					

		<b>If yes, please mark (X)</b>	<b>Percentage (%) Contribution to the Overall Average</b>
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<b>Evaluation Criteria</b>	<b>37. Midterm Exam</b>	X	<b>40</b>
	<b>38. Midterm Exam</b>		
	<b>39. Midterm Exam</b>		
	<b>Oral Exam</b>		
	<b>Practical Exam (Lab, Project etc.)</b>		
	<b>Semester Final Exam</b>	X	<b>60</b>

<b>Semester Course Plan</b>	
<b>Week</b>	<b>Syllabus</b>
<b>1</b>	Punctuation marks (Period, comma, semicolon, colon, exclamation point ...)
<b>2</b>	Spelling rules (Writing of capital letters, numbers, compound words)
<b>3</b>	Spelling rules (Writing of idioms, reduplications, loanwords and foreign proper names)
<b>4</b>	Spelling rules (Writing of abbreviations and some suffixes)
<b>5</b>	Composition (definition, purpose, methods of being successful in composition)
<b>6</b>	Methods in writing composition (formation of supporting and main ideas, planning)
<b>7</b>	Methods in writing composition (paragraph creation, methods of developing thought in paragraph)
<b>8</b>	Midterm Exam
<b>9</b>	Expression characteristics
<b>10</b>	Expression characteristics
<b>11</b>	Expression disorders
<b>12</b>	Types of expression (oral expression)
<b>13</b>	Types of expression (written expression: resume, petition...)
<b>14</b>	Types of expression (written expression: story, novel, theater, poetry...)
<b>15</b>	Final exam

**DESCRIPTION FORM OF COURSE**

<b>Course Code and Name: TTI110 STRENGTH</b>				<b>Program: _Construction Technology</b>			
<b>Semester</b>	<b>Theory</b>	<b>Prac.</b>	<b>Total</b>	<b>Credits</b>	<b>ECTS</b>	<b>Language of Course</b>	<b>Course Type Compulsory/Elective</b>
Spring	2	0	2	2	4	Türkisch	Compulsory
<b>Prerequisites of Course</b>		There are not prerequisites.					
<b>Course Instructor</b>		Lecturer Zülfü Murat DOĞAN			<b>Mail:</b> <a href="mailto:zmdogan@munzur.edu.tr">zmdogan@munzur.edu.tr</a> <b>Web:</b> <a href="https://www.munzur.edu.tr/birimler/akademik/myo/tmyo/bolumler/insaatBolum/Pages/akadro.aspx">https://www.munzur.edu.tr/birimler/akademik/myo/tmyo/bolumler/insaatBolum/Pages/akadro.aspx</a>		
<b>Aims of Course</b>		<p>With this course, the student will know the stresses that occur in objects under force and will know the behavior of the object under this stress. Again, he will be able to solve the shear and normal stresses under these loads with the Mohr circle and will be able to calculate the torsion and bending that will occur in the object. He will know the concept of moment of inertia and will be able to calculate the moment of inertia and centers of gravity of geometric shapes. He will be able to calculate the changes that may occur in the material with the effect of heat and apply the simple beam design and principles.</p>					
<b>Course Learning Outcomes and Competencies</b>		<p>1. Will be able to define strength and know the principles it is based on. Will be able to explain the concept of stress.</p> <p>1.1 Defines strength and knows the objects in strength</p> <p>1.2 Explains the principles accepted by strength</p> <p>1.3 Defines stress and knows what the stresses that occur on the object are</p> <p>2. Will have information about the behavior and shape changes of the object under the forces acting on the object.</p> <p>2.1 Knows normal and shear shape changes</p> <p>2.2 Knows the idealized Stress-Strain stress diagram.</p> <p>2.3 Knows the Poisson ratio and can calculate thermal stress</p> <p>3. Will be able to calculate the necessary stress values in uniaxial and biaxial stress cases.</p> <p>3.1 Calculates the stresses occurring in the material under uniaxial stress</p> <p>3.2 Calculates the stresses occurring in the material under biaxial stress</p> <p>3.3 Calculates the stress values occurring under both uniaxial and biaxial stress using the Mohr Circle method</p> <p>4. Be able to calculate the centers of gravity and moments of inertia of geometrically shaped objects.</p> <p>5. Calculations of stress, displacement/deformation and dimensioning of</p>					

	normal and shear forces, torsion, bending, buckling and their combined forms. 5.1 Calculates bending and torsion in objects under loads in the material 5.2 Dimensions simple beams by determining the section that will carry the load under these loads.
<b>Textbooks and /or Other Required Materials</b>	YAZICIOĞLU Osman , ISBN:975-591-864-7, Nobel Yayınları, Ankara 2006, Cisimlerin Mukavemeti KARADUMAN Mustafa, Statik ve Mukavemet
<b>Method of delivery of the course</b>	Face to face / Online
<b>Teaching Methods and Techniques</b>	Expression, Presentation, Demonstration

<b>Evaluation Criteria</b>		<b>If yes, please mark (X)</b>	<b>Percentage (%) Contribution to the Overall Average</b>
	<b>40. Midterm Exam</b>	X	<b>40</b>
	<b>41. Midterm Exam</b>		
	<b>42. Midterm Exam</b>		
	<b>Oral Exam</b>		
	<b>Practical Exam (Lab, Project etc.)</b>		
	<b>Semester Final Exam</b>	X	<b>60</b>

<b>Semester Course Plan</b>	
<b>Week</b>	<b>Syllabus</b>
<b>1</b>	Introduction of general strength concepts.
<b>2</b>	Stress, Description of one, two and three dimensional stress states. Transformations.
<b>3</b>	Calculation principles of normal and shear stress to occur in one and two axial stress
<b>4</b>	Stress, Mohr Circle Representations for Stress States. Analytical Definitions for Stress States.
<b>5</b>	Deformation and deformation displacement relations.
<b>6</b>	Stress and Deformation Relations.
<b>7</b>	General principles of dimensioning,
<b>8</b>	Midterm Exam

<b>9</b>	Internal Force Analysis and Calculation and Drawing of Section Force Diagrams
<b>10</b>	Moment of inertia, radius of inertia, moment of strength for compound sections
<b>11</b>	Moment of inertia, radius of inertia, moment of strength for compound sections
<b>12</b>	Normal and shear forces, torsion, bending, buckling and their combined states of stress, displacement/deformation and dimensioning calculations.
<b>13</b>	Normal and shear forces, torsion, bending, buckling and their combined forms of stress, displacement/strain and dimensioning calculations.
<b>14</b>	Sample Problems
<b>15</b>	Final Exam

**DESCRIPTION FORM OF COURSE**

<b>Course Code and Name: TTİ 104 Building Technology II</b>				<b>Program: Construction Technology</b>			
Semester	Theory	Prac.	Total	Credits	ECTS	Language of Course	Course Type Compulsory/Elective
Fall Semester	2	0	2	2	3	Turkish	Compulsory
<b>Prerequisites of Course</b>		There are no prerequisites.					
<b>Course Instructor</b>		Öğr. Gör. Nida SAATCI ÇELİK		<b>Mail :</b> nidacelik@munzur.edu.tr <b>Web :</b> <a href="http://www.munzur.edu.tr/birimler/akademik/myo/tmyo/bolumler/insaatBolum/Pages/akadro.aspx">www.munzur.edu.tr/birimler/akademik/myo/tmyo/bolumler/insaatBolum/Pages/akadro.aspx</a>			
<b>Aims of Course</b>		Ability to prepare all the details of a building system in scale using modern building methods and building materials.					
<b>Course Learning Outcomes and Competencies</b>		1. Be able to explain the types of expansion joints and where which expansion joint will be used. 2. Be able to explain thermal insulation, materials and methods used. 3. Be able to explain sound insulation, materials and methods used.					
<b>Textbooks and /or Other Required Materials</b>		AVCIOĞLU M Construction Technology II Birsen Publishing House 2011.					
<b>Method of delivery of the course</b>		Face to face, Online					
<b>Teaching Methods and Techniques</b>		Oral Expression, Presentation.					

Evaluation Criteria		If yes, please mark (X)	Percentage (%) Contribution to the Overall Average
	<b>43. Midterm Exam</b>	X	<b>40</b>
	<b>44. Midterm Exam</b>		
	<b>45. Midterm Exam</b>		
	<b>Oral Exam</b>		
	<b>Practical Exam (Lab, Project etc.)</b>		
	<b>Semester Final Exam</b>	X	<b>60</b>

<b>Semester Course Plan</b>	
Week	Syllabus
1	Dilatation Joints
2	Settlement and Expansion Joints
3	Vibration and Movement Joints
4	Solid Insulation Materials
5	Solid Insulation Materials
6	Liquid Insulation Materials
7	Liquid Insulation Materials
8	Midterm Exam
9	Thermal Insulation in Walls
10	Thermal Insulation in Roofs
11	Thermal Insulation in Floors
12	Thermal Insulation in Installations
13	Sound and Vibration Insulation
14	Water and Moisture Insulation
15	Final Exam

**COURSE DESCRIPTION FORM**

<b>Course Code and Name: TTİ 108 Building Architecture and Detail Drawings</b>				<b>Program: Construction Technology Program</b>			
Semester	Theory	Application.	Sum	Loans	ECTS	Course Language	Course Type: Compulsory/Elective
Fall	1	2	3	2	4	Turkish	Imperative
<b>Course Prerequisites</b>		There are no prerequisites.					
<b>Course Instructor</b>		Lecturer. Zülfükar AKSAĞAN		<b>E-mail :</b> zulfukaraksagan@munzur.edu.tr <b>Web :</b> www.munzur.edu.tr			
<b>Course Objectives</b>		With this course, the student will be able to make plan, view, section, detail and reinforced concrete plan and detail drawings by using technical drawing tools					
<b>Course Learning Outcomes and Competencies</b>		<ol style="list-style-type: none"> <li>1. Will be able to define architectural projects. <ol style="list-style-type: none"> <li>1.1. Can make architectural project drawing rules and scales.</li> <li>1.2. Can make the necessary signs, symbols and scanning drawings in architectural projects.</li> <li>1.3. Can make the necessary plans, appearances and detail drawings in architectural projects.</li> </ol> </li> <li>2. Will be able to make dimensions in projects. <ol style="list-style-type: none"> <li>2.1. Can deduce the area of the structure.</li> <li>2.2. Can create the amount of material.</li> </ol> </li> <li>3. Will be able to draw a site plan. <ol style="list-style-type: none"> <li>3.1. Make corrections to the plan.</li> <li>3.2. The site can read the plan.</li> </ol> </li> <li>4. Will be able to draw floor plans. <ol style="list-style-type: none"> <li>4.1. Apply drawing rules.</li> <li>4.2. Can read the floor plan.</li> </ol> </li> <li>5. Will be able to make plan and detail drawings of reinforced concrete structural elements. <ol style="list-style-type: none"> <li>5.1. Draw sections.</li> <li>5.2. Draw appearances.</li> </ol> </li> </ol>					
<b>Textbooks and/or Other Necessary Materials</b>		1. MEGEP 2006. Building Drawing for the Department of Construction Technology					
<b>How the course is presented</b>		Face-to-face, Online					
<b>Teaching Methods and Techniques</b>		Presentation, narration, drawing					

<b>Evaluation Criteria</b>		<b>If yes, please tick (X).</b>	<b>Percentage (%) Contribution to the Overall Average</b>
	<b>46. Midterm Exam</b>	X	<b>40</b>
	<b>47. Midterm Exam</b>		
	<b>48. Midterm Exam</b>		
	<b>Oral Exam</b>		
	<b>Practical Exam (Laboratory, Project, etc.)</b>	X	<b>60</b>
	<b>Final Exam</b>		

<b>Semester Curriculum</b>	
<b>Week</b>	<b>Curriculum</b>
<b>1</b>	To make and draw architectural definitions
<b>2</b>	To make and draw architectural definitions
<b>3</b>	To learn the concepts of scale and dimensioning, to make dimensioning
<b>4</b>	To learn the concepts of scale and dimensioning, to make dimensioning
<b>5</b>	Defining and drawing details of the structure
<b>6</b>	Defining and drawing details of the structure
<b>7</b>	Defining the site plan and drawing a site plan
<b>8</b>	Midterm Exam
<b>9</b>	Defining floor plans and drawing floor plans
<b>10</b>	Defining cross-sections and drawing cross-sections
<b>11</b>	Defining appearances and drawing appearances
<b>12</b>	Defining reinforced concrete elements and drawing reinforced concrete foundation plan
<b>13</b>	To define reinforced concrete elements and to draw a reinforced concrete column application plan
<b>14</b>	Defining reinforced concrete elements and drawing a reinforced concrete floor plan

**DESCRIPTION FORM OF COURSE**

<b>Course Code and Name:</b> <b>TTI 207 Reinforced Concrete I</b>				<b>Program:</b> _Construction Technology			
Semester	Theory	Prac.	Total	Credits	ECTS	Language of Course	Course Type Compulsory/Elective
Fall Semester	3	0	3	3	5	Türkisch	Compulsory
<b>Prerequisites of Course</b>		There are not prerequisites.					
<b>Course Instructor</b>		Assoc. Prof. Dr. Melek AKGÜL		<b>Mail :</b> melekakgul@munzur.edu.tr <b>Web :</b> www.munzur.edu.tr			
<b>Aims of Course</b>		To explain and introduce the basic principles of reinforced concrete structural elements and reinforced concrete structural system behavior.					
<b>Course Learning Outcomes and Competencies</b>		<ol style="list-style-type: none"> <li>1. To be able to comprehend the principles of behavior of reinforced concrete and the materials constituting reinforced concrete.</li> <li>2. To be able to comprehend and apply bearing capacity design calculations.</li> <li>3. To be able to define the behavior of different reinforced concrete structural elements.</li> <li>4. To be able to construct the most commonly used elements such as slabs, beams and columns in reinforced concrete.</li> <li>5. To be able to solve basic simple structural system problems and apply their analysis.</li> </ol>					
<b>Textbooks and /or Other Required Materials</b>		Prof. Dr. Doğançün A., Betonarme Yapıların Hesap ve Tasarımı Birsen Publishing					
<b>Method of delivery of the course</b>		Face to face / Online					
<b>Teaching Methods and Techniques</b>		Expression, Sample Solutions, Homework					

<b>Evaluation Criteria</b>		<b>If yes, please mark (X)</b>	<b>Percentage (%) Contribution to the Overall Average</b>
	<b>49. Midterm Exam</b>	X	40
	<b>50. Midterm Exam</b>		
	<b>51. Midterm Exam</b>		
	<b>Oral Exam</b>		

	<b>Practical Exam (Lab, Project etc.)</b>		
	<b>Semester Final Exam</b>	X	<b>60</b>

<b>Semester Course Plan</b>	
<b>Week</b>	<b>Syllabus</b>
<b>1</b>	History Application Areas, Advantages and Weaknesses of Reinforced Concrete.
<b>2</b>	Reinforced Concrete Materials, Concrete and Reinforcement Classes, Their Properties.
<b>3</b>	Concrete-Reinforcement Clamping, Addition of Reinforcement
<b>4</b>	Loads and Load Combinations. Ensuring Building Safety
<b>5</b>	Calculation According to Simple Bending (Single Reinforced Rectangular Sections)
<b>6</b>	Calculation According to Simple Bending (Double Reinforced Rectangular Sections)
<b>7</b>	Calculation Applications According to Simple Bending
<b>8</b>	Midterm Exam
<b>9</b>	Calculation According to Compound Bending (Compound Bending in One Direction)
<b>10</b>	Sample Problem Solutions
<b>11</b>	Calculation According to Compound Bending (Compound Bending in Two Directions)
<b>12</b>	Sample Problem Solutions
<b>13</b>	Calculation According to Shear and Torsion Effect
<b>14</b>	Sample Problem Solutions

**DESCRIPTION FORM OF COURSE**

<b>Course Code and Name: TTİ201 Computer Aided Design</b>				<b>Program: Buildings Technology</b>			
<b>Semester</b>	<b>Theory</b>	<b>Prac.</b>	<b>Total</b>	<b>Credits</b>	<b>ECTS</b>	<b>Language of Course</b>	<b>Course Type Compulsory/Elective</b>
Fall Semester	2	2	4	3	3	Türkisch	Compulsory
<b>Prerequisites of Course</b>		There are no prerequisites.					
<b>Course Instructor</b>		Lecturer Kürşat KAYMAZ		<b>Mail :</b> kkaymaz@munzur.edu.tr <b>Web :</b> <a href="https://www.munzur.edu.tr/birimler/akademik/myo/tmyo/bolumler/insaatBolum/Pages/akadro.aspx">https://www.munzur.edu.tr/birimler/akademik/myo/tmyo/bolumler/insaatBolum/Pages/akadro.aspx</a>			
<b>Aims of Course</b>		Ability to draw architectural projects using CAD systems.					
<b>Course Learning Outcomes and Competencies</b>		1. Become familiar with the CAD system and its hardware. 1.1. Install the CAD system on the computer. 1.2. Prepare the CAD system for drawing. 2. Be able to apply drawing methods for basic geometric shapes such as lines, polygons, circles, etc. 2.1. Develop manual skills in basic geometric drawings. 2.2. Become ready to draw projects. 3. Learn the commands in the CAD system. 3.1. Create layered drawings with different line types and colors. 3.2. Apply texting, dimensioning, and scanning methods.					
<b>Textbooks and /or Other Required Materials</b>		Computer Aided Design – 1 (Proteus – ISIS) Bedri Bahtiyar 1st Edition, 2008.					
<b>Method of delivery of the course</b>		Face to face, Online					
<b>Teaching Methods and Techniques</b>		Explanation, question-answer, presentation, practice					

		<b>If yes, please mark (X)</b>	<b>Percentage (%) Contribution to the Overall Average</b>
	<b>52. Midterm Exam</b>	X	40
	<b>53. Midterm Exam</b>		

<b>Evaluation Criteria</b>	<b>54. Midterm Exam</b>		
	<b>Oral Exam</b>		
	<b>Practical Exam (Lab, Project etc.)</b>		
	<b>Semester Final Exam</b>	X	<b>60</b>

<b>Semester Course Plan</b>	
<b>Week</b>	<b>Syllabus</b>
<b>1</b>	Introduction to the CAD System
<b>2</b>	Fundamentals of the CAD System
<b>3</b>	Understanding and applying the properties of coordinate systems
<b>4</b>	Drawing Geometry I (Basic geometric drawing elements, Correction commands)
<b>5</b>	Drawing Geometry I (Basic geometric drawing elements, Correction commands)
<b>6</b>	Drawing Geometry I (Basic geometric drawing elements, Correction commands)
<b>7</b>	Drawing Geometry II (Making adjustments to the properties of objects drawn on the screen)
<b>8</b>	Midterm Exam
<b>9</b>	Drawing Geometry II (Making adjustments to the properties of objects drawn on the screen)
<b>10</b>	Drawing Geometry II (Making adjustments to the properties of objects drawn on the screen)
<b>11</b>	Drawing Geometry III (Texting, dimensioning, blocking, segmenting, and hatching)
<b>12</b>	Drawing Geometry III (Texting, dimensioning, blocking, (Splitting and hatching)
<b>13</b>	Drawing Geometry III (Texting, dimensioning, blocking, slicing and hatching)
<b>14</b>	Drawing Geometry IV (Texting, dimensioning, blocking, slicing and hatching)
<b>15</b>	Final exam

**DESCRIPTION FORM OF COURSE**

<b>Course Code and Name: TTİ219 Damage Detection in Buildings</b>				<b>Program: Buildings Technology</b>			
<b>Semester</b>	<b>Theory</b>	<b>Prac.</b>	<b>Total</b>	<b>Credits</b>	<b>ECTS</b>	<b>Language of Course</b>	<b>Course Type Compulsory/Elective</b>
Fall Semester	2	0	2	2	2	Türkisch	Compulsory
<b>Prerequisites of Course</b>		There are no prerequisites.					
<b>Course Instructor</b>		Lecturer Kürşat KAYMAZ		<b>Mail :</b> kkaymaz@munzur.edu.tr <b>Web :</b> <a href="https://www.munzur.edu.tr/birimler/akademik/myo/tmyo/bolumler/insaatBolum/Pages/akadro.aspx">https://www.munzur.edu.tr/birimler/akademik/myo/tmyo/bolumler/insaatBolum/Pages/akadro.aspx</a>			
<b>Aims of Course</b>		The fact that a large part of our country is in a first-degree earthquake zone necessitates that our students acquire basic information about building damage.					
<b>Course Learning Outcomes and Competencies</b>		1. Students will learn about damage to buildings and repair methods. 1.1. Students will learn about damage detection methods in buildings. 1.2. Students will learn about how repairs are carried out. 2. Students will learn about the types of damage in buildings. 2.1. Students will learn what damage types mean. 2.2. Students will learn how damage types occur. 3. Students will learn about the types of damage in buildings. 3.1. Students will learn how buildings are classified according to their damage. 3.2. Students will easily conclude which structures can be repaired and which cannot.					
<b>Textbooks and /or Other Required Materials</b>		Damage Assessment in Buildings book, Dr. Hüseyin Tekel 2019.					
<b>Method of delivery of the course</b>		Face to face, Online					
<b>Teaching Methods and Techniques</b>		Explanation, question-answer, presentation					

<b>Evaluation Criteria</b>		<b>If yes, please mark (X)</b>	<b>Percentage (%) Contribution to the Overall Average</b>
	<b>55. Midterm Exam</b>	X	<b>40</b>
	<b>56. Midterm Exam</b>		
	<b>57. Midterm Exam</b>		

	<b>Oral Exam</b>		
	<b>Practical Exam (Lab, Project etc.)</b>		
	<b>Semester Final Exam</b>	<b>X</b>	<b>60</b>

<b>Semester Course Plan</b>	
<b>Week</b>	<b>Syllabus</b>
<b>1</b>	Definition of an earthquake, types of faults, seismic waves, magnitude and intensity of an earthquake
<b>2</b>	Types of damage to non-bearing elements in reinforced concrete structures
<b>3</b>	Extent and causes of damage to non-bearing elements
<b>4</b>	Extent and causes of damage to non-bearing elements
<b>5</b>	Determining the damage status of a structure
<b>6</b>	Damage to columns
<b>7</b>	Damage to nodes and beams
<b>8</b>	Midterm Exam
<b>9</b>	Methods for measuring crack depth and width
<b>10</b>	Damage to reinforced concrete shear walls and slabs
<b>11</b>	Repair and reinforcement concepts
<b>12</b>	Cracks in fresh and hardened concrete, their causes, and precautions
<b>13</b>	Combined evaluation of concrete test hammer and core sample results
<b>14</b>	Drawing reinforcement details
<b>15</b>	Final exam

**DESCRIPTION FORM OF COURSE**

<b>Course Code and Name: TTİ 203 Soil Analysis I</b>				<b>Program: Construction Technology</b>			
<b>Semester</b>	<b>Theory</b>	<b>Prac.</b>	<b>Total</b>	<b>Credits</b>	<b>ECTS</b>	<b>Language of Course</b>	<b>Course Type Compulsory/Elective</b>
Fall Semester	2	0	2	2	3	Turkish	Compulsory
<b>Prerequisites of Course</b>		There are no prerequisites.					
<b>Course Instructor</b>		Öğr. Gör. Nida SAATCI ÇELİK		<b>Mail :</b> nidacelik@munzur.edu.tr <b>Web :</b> <a href="http://www.munzur.edu.tr/birimler/akademik/myo/tmyo/bolumler/insaatBolum/Pages/akadro.aspx">www.munzur.edu.tr/birimler/akademik/myo/tmyo/bolumler/insaatBolum/Pages/akadro.aspx</a>			
<b>Aims of Course</b>		Teaching Basic Concepts of Soil Mechanics					
<b>Course Learning Outcomes and Competencies</b>		1. To be able to explain the basic concepts of soil mechanics. 2. To be able to define problems based on basic soil principles. 3. To be able to explain the basic physical properties of soils and the relationships between them. 4. To be able to perform the necessary tests to define and classify soils. 5. To be able to explain the elastic and plastic equilibrium conditions in the soil and the stresses that will occur. 6. To be able to explain the movement of groundwater in the soil. 7. To be able to calculate and draw the changes in total stress, effective stress and pore water pressure with depth.					
<b>Textbooks and /or Other Required Materials</b>		Prof. Dr. ÖZAYDIN K., Soil Mechanics Birsen Publishing House. Prof. Dr. Taner ALATAŞ Lecture Notes Problems and Solutions					
<b>Method of delivery of the course</b>		Face to face, Online					
<b>Teaching Methods and Techniques</b>		Oral Expression, Presentation, Sample Question Solutions					

<b>Evaluation Criteria</b>		<b>If yes, please mark (X)</b>	<b>Percentage (%) Contribution to the Overall Average</b>
	<b>58. Midterm Exam</b>	X	<b>40</b>
	<b>59. Midterm Exam</b>		
	<b>60. Midterm Exam</b>		
	<b>Oral Exam</b>		
	<b>Practical Exam (Lab, Project etc.)</b>		
	<b>Semester Final Exam</b>	X	<b>60</b>

**Semester Course Plan**

<b>Week</b>	<b>Syllabus</b>
<b>1</b>	Geology (Geological Structure of Turkey, Rocks Found in the Earth's Crust, Classification of Rocks According to Formation Conditions and Origins)
<b>2</b>	Formation of Soils
<b>3</b>	Physical Properties and Classification of Soils
<b>4</b>	Basic Physical Properties of Soils (Unit Volume Weight, Void Ratio, Water Content, Saturation Degree, Relative Density)
<b>5</b>	Relations Between Basic Properties of Soils
<b>6</b>	Sample Solutions
<b>7</b>	Sample Solutions
<b>8</b>	Midterm Exam
<b>9</b>	Classification of Soils, Sieve Analysis
<b>10</b>	Consistency Limits
<b>11</b>	Determination of Consistency Limits by Experiments
<b>12</b>	Soil Classification Systems
<b>13</b>	Ground Water
<b>14</b>	Calculation of Total Stress, Effective Stress, Pore Water Pressure with Depth, Sample Applications
<b>15</b>	Final Exam

**DESCRIPTION FORM OF COURSE**

<b>Course Code and Name: TTİ 205 Quantity Surveying and Exploration Works</b>				<b>Program: Construction Technology</b>			
<b>Semester</b>	<b>Theory</b>	<b>Prac.</b>	<b>Total</b>	<b>Credits</b>	<b>ECTS</b>	<b>Language of Course</b>	<b>Course Type Compulsory/Elective</b>
Fall Semester	3	0	3	3	3	Turkish	Compulsory
<b>Prerequisites of Course</b>		There are no prerequisites.					
<b>Course Instructor</b>		Öğr. Gör. Nida SAATCI ÇELİK		<b>Mail :</b> nidacelik@munzur.edu.tr <b>Web :</b> <a href="http://www.munzur.edu.tr/birimler/akademik/myo/myo/bolumler/insaatBolum/Pages/akadro.aspx">www.munzur.edu.tr/birimler/akademik/myo/myo/bolumler/insaatBolum/Pages/akadro.aspx</a>			
<b>Aims of Course</b>		With this course, students will be able to take stock of building elements and calculate progress payments.					
<b>Course Learning Outcomes and Competencies</b>		1. Will be able to define quantity surveying. 1.1. Will have information on how quantity surveying will be done. 1.2. Will understand the importance of quantity surveying for the structure. 2. Will be able to define surveying. 2.1. Will have information on how quantity surveying will be done. 2.2. Will learn what to consider when surveying. 3. Will be able to define unit price descriptions. 3.1. Will be able to make unit price analyses. 3.2. Will be able to make approximate cost calculations. 4. Will be able to prepare tenders according to the laws in force. 4.1. Will be able to make tenders according to the laws in force. 4.2. Will be able to make a contract with the contractor company according to the laws in force. 5. Will be able to understand the public procurement law and implementation regulations. 5.1. Will be able to organize correspondence documents. 5.2. They will be able to apply the public procurement law and its implementation regulations.					
<b>Textbooks and /or Other Required Materials</b>		I. GÖZÜ, Ş. U.; Construction Quantity Surveying and Exploration Works, Okutman Publishing, Istanbul 2010					
<b>Method of delivery of the course</b>		Face to face, Online					
<b>Teaching Methods and Techniques</b>		Oral Expression, Presentation, Sample Question Solutions					

<b>Evaluation Criteria</b>	<b>If yes, please mark (X)</b>	<b>Percentage (%) Contribution to the Overall Average</b>
<b>61. Midterm Exam</b>	X	<b>40</b>
<b>62. Midterm Exam</b>		
<b>63. Midterm Exam</b>		
<b>Oral Exam</b>		
<b>Practical Exam (Lab, Project etc.)</b>		
<b>Semester Final Exam</b>	X	<b>60</b>

<b>Semester Course Plan</b>	
<b>Week</b>	<b>Syllabus</b>
<b>1</b>	Definition, Importance and Types of Quantity and Exploration
<b>2</b>	Tables Used in Quantity Calculations and Quantity Application
<b>3</b>	Excavation, Blockage and Wall Quantity Applications
<b>4</b>	Concrete and Lintel Quantity Applications
<b>5</b>	Mould and Brick Wall Quantity Applications
<b>6</b>	Interior, Exterior and Ceiling Plaster Quantity Applications
<b>7</b>	Floor, Paint, Whitewash, Skirting, Windowsill and Roof Quantity Applications
<b>8</b>	Midterm Exam
<b>9</b>	Sample Project Quantity Application
<b>10</b>	Sample Beam and Column Iron Quantity Application
<b>11</b>	Sample Curtain Wall and Foundation Iron Quantity Application
<b>12</b>	Public Procurement Law
<b>13</b>	Public Procurement Law
<b>14</b>	Public Procurement Law
<b>15</b>	Final Exam

**DESCRIPTION FORM OF COURSE**

<b>Course Code and Name: TTİ214 STEEL STRUCTURES II</b>				<b>Program: _Construction Technology</b>			
<b>Semester</b>	<b>Theory</b>	<b>Prac.</b>	<b>Total</b>	<b>Credits</b>	<b>ECTS</b>	<b>Language of Course</b>	<b>Course Type Compulsory/Elective</b>
Autumn	3	0	3	3	4	Türkisch	Compulsory
<b>Prerequisites of Course</b>		There are not prerequisites.					
<b>Course Instructor</b>		Lecturer Zülfü Murat DOĞAN			<b>Mail:</b> <a href="mailto:zmdogan@munzur.edu.tr">zmdogan@munzur.edu.tr</a> <b>Web:</b> <a href="https://www.munzur.edu.tr/birimler/akademik/myo/tmyo/bolumler/insaatBolum/Pages/akadro.aspx">https://www.munzur.edu.tr/birimler/akademik/myo/tmyo/bolumler/insaatBolum/Pages/akadro.aspx</a>		
<b>Aims of Course</b>		With this course, students will be able to calculate tension and compression bars in steel structures and select the material that will carry that load under the required loads. They will be able to calculate single and multi-piece columns and make welding calculations for joining. They will be able to make roof calculations for steel structures.					
<b>Course Learning Outcomes and Competencies</b>		1. Will make the necessary calculations for tension bars in steel structures 1.1 Will make the stress checks of tension bars 1.2 Will calculate and use the necessary additional parts for the joint in the gap 2. Will make the buckling calculations for pressure bars 2.1 Will make the buckling calculations for pressure bars 2.2 Will apply the Domke method to select the pressure bar that can carry the load on it 2.3 Will make the stress checks of single-piece and multi-piece pressure bars 3. Will be able to make the necessary calculations for solid body, profile and construction beams 4. Will make the roof calculations and formation 4.1 Will calculate the necessary carrier elements that will bear the loads on the roofs 4.2 Will make the welding calculations as a joining tool by making the gusse calculations					
<b>Textbooks and /or Other Required Materials</b>		KARADUMAN Mustafa, ISBN: 975-6574-14-3. Atlas Yayınevi, İstanbul 2005, Çelik Yapılar ÖZTÜRK A. Zafer, ISBN:975-511-305-3, Birsen Yayınevi, İstanbul 2009, Çelik Yapılar ERŞEN Necati, ISBN: 975-511-034-8, Birsen Yayınevi, İstanbul 2007, Çelik Yapılar ve Çözümlemiş Problemler					
<b>Method of delivery of the course</b>		Face to face / Online					
<b>Teaching Methods and Techniques</b>		Expression, Presentation, Demonstration					

		<b>If yes, please mark (X)</b>	<b>Percentage (%) Contribution to the</b>
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<b>Evaluation Criteria</b>			<b>Overall Average</b>
	<b>64. Midterm Exam</b>	X	<b>40</b>
	<b>65. Midterm Exam</b>		
	<b>66. Midterm Exam</b>		
	<b>Oral Exam</b>		
	<b>Practical Exam (Lab, Project etc.)</b>		
	<b>Semester Final Exam</b>	X	<b>60</b>

<b>Semester Course Plan</b>	
<b>Week</b>	<b>Syllabus</b>
<b>1</b>	Tensile bar stress verification applications
<b>2</b>	Single-piece pressure bar calculation principles
<b>3</b>	Applications related to single-piece pressure bars
<b>4</b>	Multi-piece pressure bars, general information and calculation principles
<b>5</b>	1st Group multi-piece pressure bar calculations
<b>6</b>	Applications related to 1st Group multi-piece pressure bars
<b>7</b>	2nd Group multi-piece pressure bar calculation principles
<b>8</b>	Applications related to 2nd Group multi-piece pressure bars
<b>9</b>	Midterm Exam
<b>10</b>	Solid body beams, profile beams and construction beams calculation principles connection types and elements
<b>11</b>	Applications for solid body and profile beams
<b>12</b>	Applications for beam joints
<b>13</b>	Steel roofs and calculation principles
<b>14</b>	Sample applications for steel roofs
<b>15</b>	Final exam

**DESCRIPTION FORM OF COURSE**

<b>Course Code and Name: TTİ215 HYDRAULICS AND HYDROLOGY</b>				<b>Program: _Construction Technology</b>			
<b>Semester</b>	<b>Theory</b>	<b>Prac.</b>	<b>Total</b>	<b>Credits</b>	<b>ECTS</b>	<b>Language of Course</b>	<b>Course Type Compulsory/Elective</b>
Autumn	2	0	2	2	3	Türkish	Compulsory
<b>Prerequisites of Course</b>		There are not prerequisites.					
<b>Course Instructor</b>		Lecturer Zülfü Murat DOĞAN			<b>Mail:</b> <a href="mailto:zmdogan@munzur.edu.tr">zmdogan@munzur.edu.tr</a> <b>Web:</b> <a href="https://www.munzur.edu.tr/birimler/akademik/myo/tmyo/bolumler/insaatBolum/Pages/akadro.aspx">https://www.munzur.edu.tr/birimler/akademik/myo/tmyo/bolumler/insaatBolum/Pages/akadro.aspx</a>		
<b>Aims of Course</b>		Students should be able to understand the pressure and calculation principles of water.					
<b>Course Learning Outcomes and Competencies</b>		1. Will learn the definition and importance of hydrology. 1.1. Will learn about the hydrological cycle. 1.2. Will learn the basic equations of hydrology.  2. Will learn the pressure and calculation principles of water. 2.1. Will find solutions with these principles. 2.2. Will easily solve pressure problems.  3. Will learn about flows in pipes and open channels. 3.1. Will recognize flow profiles in pipes and open channels. 3.2. Will be able to perform channel sizing.					
<b>Textbooks and /or Other Required Materials</b>		Prof.Emin Karahan-Boru ve Açık Kanal Hidroliği-İstanbul-1986.					
<b>Method of delivery of the course</b>		Face to face / Online					
<b>Teaching Methods and Techniques</b>		Expression, Presentation, Demonstration					

<b>Evaluation Criteria</b>		<b>If yes, please mark (X)</b>	<b>Percentage (%) Contribution to the Overall Average</b>
	<b>67. Midterm Exam</b>	X	<b>40</b>
	<b>68. Midterm Exam</b>		
	<b>69. Midterm Exam</b>		

	<b>Oral Exam</b>		
	<b>Practical Exam (Lab, Project etc.)</b>		
	<b>Semester Final Exam</b>	X	<b>60</b>

<b>Semester Course Plan</b>	
<b>Week</b>	<b>Syllabus</b>
<b>1</b>	Definition of hydrology, precipitation and types of precipitation
<b>2</b>	Hydrological cycle and formation of underground and surface waters
<b>3</b>	Explains precipitation measurement instruments and methods
<b>4</b>	Explains unit systems and the principles of converting these unit systems to each other.
<b>5</b>	Explains the concept of ideal fluid.
<b>6</b>	Be able to understand the types of flow in pipes and the formation of friction losses
<b>7</b>	Explains the concepts of laminar and turbulent flow and their formation 8th Lesson Repetition and Midterm Exam
<b>8</b>	Explains the reasons for head loss in pipes
<b>9</b>	Be able to understand open channel flows
<b>10</b>	Classify free surface flows
<b>11</b>	Understand the definition of hydraulic slope and its calculation
<b>12</b>	Understand Reynolds and Freude modeling
<b>13</b>	General repetition
<b>14</b>	Definition of hydrology, precipitation and types of precipitation
<b>15</b>	Final exam

**COURSE DESCRIPTION FORM**

<b>Course Code and Name: TTİ 217 Highway Construction I</b>				<b>Program: Construction Technology Program</b>			
Semester	Theory	Application.	Sum	Loans	ECTS	Course Language	Course Type: Compulsory/Elective
Fall	2	0	2	2	3	Turkish	Optional
<b>Course Prerequisites</b>		There are no prerequisites.					
<b>Course Instructor</b>		Lecturer. Zülfükar AKSAĞAN		<b>E-mail :</b> zulfukaraksagan@munzur.edu.tr <b>Web :</b> www.munzur.edu.tr			
<b>Course Objectives</b>		With this course, the student will know what the highway is and the concepts related to the road, learn the effects of traffic and road capacities on the project design of the road, and will be able to comprehend which process steps should be followed while the road project and survey. It will be able to analyze the service life of the road to be built or in the current condition.					
<b>Course Learning Outcomes and Competencies</b>		<ol style="list-style-type: none"> <li>1. Will be able to explain the highway and highway elements. <ol style="list-style-type: none"> <li>1.1 Knows the history of the highway</li> <li>1.2 Recognizes the cross-section of the highway and the elements in its cross-section</li> </ol> </li> <li>2. It will calculate visibility distances and traffic density for the project on the roads. <ol style="list-style-type: none"> <li>2.1 It calculates the passing visibility in case of oncoming vehicles and not coming.</li> <li>2.2 Calculates stopping visibility</li> <li>2.3 It knows the service time of any road by calculating traffic capacities and capacity reduction coefficients</li> </ol> </li> <li>3. By calculating the geometric standards of the road, he will know the process of nailing the elevations of the road to the land.</li> <li>4. Will be able to calculate the curve elements in horizontal curbs, calculate the radius, tangent lengths, tangent angles of the curves and apply them in the project.</li> <li>5. Will be able to make the necessary calculations on vertical curves and apply them in road projects.</li> </ol>					
<b>Textbooks and/or Other Necessary Materials</b>		"Road Materials and Applications" – Argun Tunç, Seçkin Publishing; "Geotechnical Applications in Road Engineering" – Argun Tunç, Seçkin Publishing; "Coating Engineering and Applications" – Argun Tunç, Asil Publishing Distribution; "Highway Engineering" – Şakir Erdoğdu, Birsen Publishing House; "Transportation Engineering" – Hüseyin Murat Ertan, Atlas Academy Publications.					
<b>How the course is presented</b>		Face-to-face, Online					
<b>Teaching Methods and Techniques</b>		Lecture, presentation					

<b>Evaluation Criteria</b>		<b>If yes, please tick (X).</b>	<b>Percentage (%) Contribution to the Overall Average</b>
	<b>70. Midterm Exam</b>	X	<b>40</b>
	<b>71. Midterm Exam</b>		
	<b>72. Midterm Exam</b>		
	<b>Oral Exam</b>		
	<b>Practical Exam (Laboratory, Project, etc.)</b>		
	<b>Final Exam</b>	X	<b>60</b>

<b>Semester Curriculum</b>	
<b>Week</b>	<b>Curriculum</b>
<b>1</b>	Highway definition, history and types of roads
<b>2</b>	Road elements on the highway and road cross-section
<b>3</b>	Principles of calculation of passing and stopping and walking distances
<b>4</b>	Application solution for passing, visibility and stopping and wrestling distances
<b>5</b>	Traffic and Capacity
<b>6</b>	Traffic and Capacity (Service level, factors affecting capacity)
<b>7</b>	Road geometric standards (project speed and calculation)
<b>8</b>	Midterm Exam
<b>9</b>	Selection of road geometric standards (Traffic estimation and classification of roads)
<b>10</b>	Geçki, İnkişaf and Etude
<b>11</b>	Methods of nailing road elevations to the terrain
<b>12</b>	Application solution for the methods of nailing road elevations to the land
<b>13</b>	Calculation principles of horizontal and vertical curb elements
<b>14</b>	Sample problem solution on horizontal and vertical curve elements



**DESCRIPTION FORM OF COURSE**

<b>Course Code and Name: TTİ209 Laboratory Techniques</b>				<b>Program: _Construction Technology</b>			
Semester	Theory	Prac.	Total	Credits	ECTS	Language of Course	Course Type Compulsory/Elective
Fall Semester	1	2	3	2	3	Türkisch	Compulsory
<b>Prerequisites of Course</b>		There are not prerequisites.					
<b>Course Instructor</b>		Assoc. Prof. Dr. Melek AKGÜL		<b>Mail :</b> melekakgul@munzur.edu.tr <b>Web :</b> www.munzur.edu.tr			
<b>Aims of Course</b>		To enable students to learn and apply experiments.					
<b>Course Learning Outcomes and Competencies</b>		<ol style="list-style-type: none"> <li>1. Recognize the experimental instruments used in the laboratory.               <ol style="list-style-type: none"> <li>1.1. Learns how to use experimental instruments.</li> <li>1.2. Have information about the maintenance of experimental instruments.</li> </ol> </li> <li>2. Learn how the experiments are done.               <ol style="list-style-type: none"> <li>2.1. Have knowledge about why experiments are done.</li> <li>2.2. Interprets the results of the experiment.</li> </ol> </li> <li>3. will learn concrete mix calculation.               <ol style="list-style-type: none"> <li>3.1. Finds how much of which material will be used in the concrete mixture.</li> <li>3.2. sees the change in the result when the material is used more or less.</li> </ol> </li> </ol>					
<b>Textbooks and /or Other Required Materials</b>		Şimşek, O. (2011) Concrete Components and Concrete Tests, Seçkin Publishing					
<b>Method of delivery of the course</b>		Face to face / Online					
<b>Teaching Methods and Techniques</b>		Presentation, expression, demonstration technique					

<b>Evaluation Criteria</b>		<b>If yes, please mark (X)</b>	<b>Percentage (%) Contribution to the Overall Average</b>
	<b>73. Midterm Exam</b>	X	<b>40</b>
	<b>74. Midterm Exam</b>		
	<b>75. Midterm Exam</b>		
	<b>Oral Exam</b>		

	<b>Practical Exam (Lab, Project etc.)</b>		
	<b>Semester Final Exam</b>	X	<b>60</b>

<b>Semester Course Plan</b>	
<b>Week</b>	<b>Syllabus</b>
<b>1</b>	Introduction and cleaning of experimental instruments
<b>2</b>	Aggregate Experiments
<b>3</b>	Aggregate Experiments
<b>4</b>	Aggregate Experiments
<b>5</b>	Aggregate Experiments
<b>6</b>	Aggregate Experiments
<b>7</b>	Fresh Concrete Experiments
<b>8</b>	Midterm
<b>9</b>	Mixture Calculation
<b>10</b>	Concrete Experiments
<b>11</b>	Mortar Experiments
<b>12</b>	Soil Experiments
<b>13</b>	Mudanya Armistice
<b>14</b>	Cement Experiments

**DESCRIPTION FORM OF COURSE**

<b>Course Code and Name:</b> TTI 208 Reinforced Concrete II				<b>Program:</b> _Construction Technology			
Semester	Theory	Prac.	Total	Credits	ECTS	Language of Course	Course Type Compulsory/Elective
Spring	2	0	2	2	4	Türkisch	Compulsory
<b>Prerequisites of Course</b>		There are not prerequisites.					
<b>Course Instructor</b>		Assoc. Prof. Dr. Melek AKGÜL		<b>Mail :</b> melekakgul@munzur.edu.tr <b>Web :</b> www.munzur.edu.tr			
<b>Aims of Course</b>		To explain the basic principles of reinforced concrete structural elements and reinforced concrete structural system behavior, to introduce the analysis methods, design stages and foundation principles of reinforced concrete slab and foundation systems.					
<b>Course Learning Outcomes and Competencies</b>		1. To be able to recognize reinforced concrete foundations and to comprehend the selection principles of foundations. 2. To be able to make the necessary analysis and design calculations for reinforced concrete plate systems. 3. To be able to comprehend information about earthquake resistant reinforced concrete design. 4. To be able to control and apply reinforced concrete calculation outputs using simple and approximate methods.					
<b>Textbooks and /or Other Required Materials</b>		Prof. Dr. Doğangün A., Betonarme Yapıların Hesap ve Tasarımı Birsen Publishing					
<b>Method of delivery of the course</b>		Face to face / Online					
<b>Teaching Methods and Techniques</b>		Expression, Sample Solutions, Homework					

<b>Evaluation Criteria</b>		<b>If yes, please mark (X)</b>	<b>Percentage (%) Contribution to the Overall Average</b>
	<b>1. Midterm Exam</b>	X	<b>40</b>
	<b>2. Midterm Exam</b>		
	<b>3. Midterm Exam</b>		
	<b>Oral Exam</b>		
	<b>Practical Exam (Lab, Project etc.)</b>		

	<b>Semester Final Exam</b>	<b>X</b>	<b>60</b>
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<b>Semester Course Plan</b>	
<b>Week</b>	<b>Syllabus</b>
<b>1</b>	Basic information on reinforced concrete, concrete, steel, reinforced concrete
<b>2</b>	Bearing capacity.
<b>3</b>	Reinforced Concrete Foundations
<b>4</b>	Types of Foundations
<b>5</b>	Reinforced concrete calculations of under-wall foundations
<b>6</b>	Singular base sizing
<b>7</b>	Example solutions related to foundations
<b>8</b>	Midterm Exam
<b>9</b>	Static calculations of slabs
<b>10</b>	Static calculations of foundations
<b>11</b>	Reinforced concrete columns, shear walls, stairs, beams, slabs and foundations section determination calculations
<b>12</b>	Reinforcement calculations of reinforced concrete columns, shear walls, stairs, beams, slabs and foundations
<b>13</b>	Reinforcement layout drawings of reinforced concrete columns, shear walls, stairs, beams, slabs and foundations
<b>14</b>	Reinforced concrete project principles

**DESCRIPTION FORM OF COURSE**

<b>Course Code and Name: TTİ202 Computer Aided Design II</b>				<b>Program: _Construction Technology</b>			
Semester	Theory	Prac.	Total	Credits	ECTS	Language of Course	Course Type Compulsory/Elective
Spring	2	2	4	3	3	Türkisch	Compulsory
<b>Prerequisites of Course</b>		There are not prerequisites.					
<b>Course Instructor</b>		Assoc. Prof. Dr. Melek AKGÜL		<b>Mail :</b> melekakgul@munzur.edu.tr <b>Web :</b> www.munzur.edu.tr			
<b>Aims of Course</b>		This course aims to understand the relationship between the structural properties of basic material groups and their physical, chemical and mechanical properties and to recognize basic building materials.					
<b>Course Learning Outcomes and Competencies</b>		<p>The learner;</p> <ol style="list-style-type: none"> <li>1. will be able to make drawings with the help of CAD system.             <ol style="list-style-type: none"> <li>1.1. Makes architectural project drawings with the help of CAD system.</li> <li>1.2. Makes architectural detail drawings with the help of CAD system.</li> </ol> </li> <li>2. Will be able to apply drawing principles of reinforced concrete elements with the help of CAD system.             <ol style="list-style-type: none"> <li>2.1. Makes dimensioning.</li> <li>2.2. Makes naming.</li> </ol> </li> <li>3. Will be able to comprehend the drawing methods of the drawn drawings.             <ol style="list-style-type: none"> <li>3.1. Knows how to start drawing.</li> <li>3.2. Makes the drawing in a short time using the necessary methods.</li> </ol> </li> </ol>					
<b>Textbooks and /or Other Required Materials</b>		Akgül, M. AutoCAD 2013- Temel Komutlar, Data Publishing					
<b>Method of delivery of the course</b>		Face to face / Online					
<b>Teaching Methods and Techniques</b>		Presentation, expression, demonstration					

		<b>If yes, please mark (X)</b>	<b>Percentage (%) Contribution to the Overall Average</b>
	<b>4. Midterm Exam</b>	X	40
	<b>5. Midterm Exam</b>		

	<b>6. Midterm Exam</b>		
	<b>Oral Exam</b>		
	<b>Practical Exam (Lab, Project etc.)</b>		
	<b>Semester Final Exam</b>	X	<b>60</b>

<b>Semester Course Plan</b>	
<b>Week</b>	<b>Syllabus</b>
<b>1</b>	Preparation of Architectural Design of a Simple Building with CAD System
<b>2</b>	Preparation of Architectural Design of a Simple Building with CAD System
<b>3</b>	Preparation of Architectural Design of a Simple Building with CAD System
<b>4</b>	Preparation of Architectural Design of a Simple Building with CAD System
<b>5</b>	Preparation of Architectural Design of a Simple Building with CAD System
<b>6</b>	Architectural Detail Drawings with CAD System
<b>7</b>	Architectural Detail Drawings with CAD System
<b>8</b>	Architectural Detail Drawings with CAD System
<b>9</b>	Detail Drawings of Reinforced Concrete Elements with CAD System
<b>10</b>	Detail Drawings of Reinforced Concrete Elements with CAD System
<b>11</b>	Detail Drawings of Reinforced Concrete Elements with CAD System
<b>12</b>	Detail Drawings of Reinforced Concrete Elements with CAD System
<b>13</b>	Detail Drawings of Reinforced Concrete Elements with CAD System
<b>14</b>	Drawing the projects prepared with CAD.

**DESCRIPTION FORM OF COURSE**

<b>Course Code and Name: TTİ206 Building Repair and Reinforcement</b>				<b>Program: Buildings Technology</b>			
Semester	Theory	Prac.	Total	Credits	ECTS	Language of Course	Course Type Compulsory/Elective
Fall Semester	2	0	2	2	3	Türkish	Compulsory
<b>Prerequisites of Course</b>		There are no prerequisites.					
<b>Course Instructor</b>		Lecturer Kürşat KAYMAZ			<b>Mail :</b> kkaymaz@munzur.edu.tr <b>Web :</b> <a href="https://www.munzur.edu.tr/birimler/akademik/myo/tmyo/bolumler/insaatBolum/Pages/akadro.aspx">https://www.munzur.edu.tr/birimler/akademik/myo/tmyo/bolumler/insaatBolum/Pages/akadro.aspx</a>		
<b>Aims of Course</b>		With this course, students will be able to identify damaged structures and prepare for repair and reinforcement.					
<b>Course Learning Outcomes and Competencies</b>		1. Will learn the concept of damage. 1.1. Will recognize the damaged structure. 1.2. Will identify the damage areas. 2. Will be able to prepare the damage areas. 2.1. Will find a solution. 2.2. Will prepare for the application. 3. Will be able to create material lists. 3.1. Will be able to gather information about materials. 3.2. Will be able to recognize the materials. 4. Will learn the concept of repair. 4.1. Will be able to learn how to repair. 4.2. Will be able to define the structure to be repaired. 5. Will be able to carry out repair and strengthening applications. 5.1. Will be able to have scaffolding and platforms erected in the repaired area. 5.2. Will be able to find the most suitable material for repair.					
<b>Textbooks and /or Other Required Materials</b>		Damage Assessment in Buildings Book, Dr. Hüseyin Tekel 2019.					
<b>Method of delivery of the course</b>		Face to face, Online					
<b>Teaching Methods and Techniques</b>		Explanation, question-answer, presentation					

		<b>If yes, please mark (X)</b>	<b>Percentage (%) Contribution to the Overall Average</b>
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<b>Evaluation Criteria</b>	<b>7. Midterm Exam</b>	X	<b>40</b>
	<b>8. Midterm Exam</b>		
	<b>9. Midterm Exam</b>		
	<b>Oral Exam</b>		
	<b>Practical Exam (Lab, Project etc.)</b>		
	<b>Semester Final Exam</b>	X	<b>60</b>

<b>Semester Course Plan</b>	
<b>Week</b>	<b>Syllabus</b>
<b>1</b>	General Information and Definitions
<b>2</b>	Damage Assessment
<b>3</b>	Real Estate Survey
<b>4</b>	Non-Destructive Testing Methods
<b>5</b>	Non-Destructive Testing
<b>6</b>	Damage to Columns
<b>7</b>	Strengthening in Buildings
<b>8</b>	Midterm Exam
<b>9</b>	Preliminary preparation of the damaged area
<b>10</b>	Material supply
<b>11</b>	Repair and strengthening concepts
<b>12</b>	Repair and strengthening of columns and walls
<b>13</b>	Repair details
<b>14</b>	Repair in reinforced concrete structures
<b>15</b>	Final exam

**DESCRIPTION FORM OF COURSE**

<b>Course Code and Name: TTI210 Topography</b>				<b>Program: Buildings Technology</b>			
<b>Semester</b>	<b>Theory</b>	<b>Prac.</b>	<b>Total</b>	<b>Credits</b>	<b>ECTS</b>	<b>Language of Course</b>	<b>Course Type Compulsory/Elective</b>
Fall Semester	1	2	3	2	4	Türkish	Compulsory
<b>Prerequisites of Course</b>		There are no prerequisites.					
<b>Course Instructor</b>		Lecturer Kürşat KAYMAZ		<b>Mail :</b> kkaymaz@munzur.edu.tr <b>Web :</b> <a href="https://www.munzur.edu.tr/birimler/akademik/myo/tmyo/bolumler/insaatBolum/Pages/akadro.aspx">https://www.munzur.edu.tr/birimler/akademik/myo/tmyo/bolumler/insaatBolum/Pages/akadro.aspx</a>			
<b>Aims of Course</b>		With this course, students will be able to apply land measurement techniques and make basic calculations required for their profession.					
<b>Course Learning Outcomes and Competencies</b>		1. Will be able to recognize land types. 1.1. Will be able to have knowledge about land. 1.2. Will be able to make preliminary preparations about land. 2. Will be able to classify land measuring instruments. 2.1. Will be able to use land measuring instruments. 2.2. Will be able to recognize land measuring instruments. 3. Will be able to install land measuring instruments. 3.1. Will be able to install and adjust land measuring instruments. 3.2. Will be able to take readings with land measuring instruments. 4. Will be able to calculate area and volume using measurements taken on the land. 4.1. Will be able to calculate fill area and volume using measurements taken on the land. 4.2. Will be able to calculate excavation area and volume using measurements taken on the land. 5. Will be able to draw a land cross-section. 5.1. Will be able to draw a land longitudinal cross-section. 5.2. Can create a terrain cross-section. 5.3. Can plot planed measurements on a map. 5.4. Can create a terrain profile using the obtained measurements.					
<b>Textbooks and /or Other Required Materials</b>		Topography Measurement Information - Ferruh Yıldız Nobel Academic Publishing, 2014					
<b>Method of delivery of the course</b>		Face to face, Online					
<b>Teaching Methods and Techniques</b>		Explanation, question-answer, presentation, practice					

<b>Evaluation Criteria</b>		<b>If yes, please mark (X)</b>	<b>Percentage (%) Contribution to the Overall Average</b>
	<b>10. Midterm Exam</b>	X	<b>40</b>
	<b>11. Midterm Exam</b>		
	<b>12. Midterm Exam</b>		
	<b>Oral Exam</b>		
	<b>Practical Exam (Lab, Project etc.)</b>		
	<b>Semester Final Exam</b>	X	<b>60</b>

<b>Semester Course Plan</b>	
<b>Week</b>	<b>Syllabus</b>
<b>1</b>	Basic concepts of topography
<b>2</b>	Defining measurement tools and units
<b>3</b>	Land surveying techniques and land surveying
<b>4</b>	Leveling and establishing leveling in the field
<b>5</b>	Leveling and establishing leveling in the field
<b>6</b>	Length measurement, length measuring tools, and length measurements in different terrain classes
<b>7</b>	Electronic land surveying instruments and establishing electronic measurement instruments in the field
<b>8</b>	Midterm Exam
<b>9</b>	Basic Assignments
<b>10</b>	Drawing longitudinal sections and defining longitudinal sections in the field
<b>11</b>	Drawing cross sections and defining cross sections in the field
<b>12</b>	Polygons, their construction, and classification
<b>13</b>	Drawing plan dimensions and defining plan dimensions in the field
<b>14</b>	Drawing plan dimensions and defining plan dimensions in the field
<b>15</b>	Final exam

**DESCRIPTION FORM OF COURSE**

<b>Course Code and Name: TTİ 204 Soil Analysis II</b>				<b>Program: Construction Technology</b>			
Semester	Theory	Prac.	Total	Credits	ECTS	Language of Course	Course Type Compulsory/Elective
Fall Semester	3	0	3	3	3	Turkish	Compulsory
<b>Prerequisites of Course</b>		There are no prerequisites.					
<b>Course Instructor</b>		Öğr. Gör. Nida SAATCI ÇELİK		<b>Mail :</b> nidacelik@munzur.edu.tr <b>Web :</b> <a href="http://www.munzur.edu.tr/birimler/akademik/mvo/myo/bolumler/insaatsolum/Pages/akadro.aspx">www.munzur.edu.tr/birimler/akademik/mvo/myo/bolumler/insaatsolum/Pages/akadro.aspx</a>			
<b>Aims of Course</b>		Teaching Basic Concepts of Soil Mechanics					
<b>Course Learning Outcomes and Competencies</b>		1. To be able to explain the basic concepts of soil mechanics. 2. To be able to define problems based on basic soil principles. 3. To be able to explain the basic physical properties of soils and the relationships between them. 4. To be able to perform the necessary tests to define and classify soils. 5. To be able to explain the elastic and plastic equilibrium conditions in the soil and the stresses that will occur. 6. To be able to explain the movement of groundwater in the soil. 7. To be able to calculate and draw the changes in total stress, effective stress and pore water pressure with depth.					
<b>Textbooks and /or Other Required Materials</b>		Prof. Dr. ÖZAYDIN K., Soil Mechanics Birsen Publishing House. Prof. Dr. Taner ALATAŞ Lecture Notes Problems and Solutions					
<b>Method of delivery of the course</b>		Face to face, Online					
<b>Teaching Methods and Techniques</b>		Oral Expression, Presentation, Sample Question Solutions					

Evaluation Criteria		If yes, please mark (X)	Percentage (%) Contribution to the Overall Average
	<b>13. Midterm Exam</b>	X	<b>40</b>
	<b>14. Midterm Exam</b>		
	<b>15. Midterm Exam</b>		
	<b>Oral Exam</b>		
	<b>Practical Exam (Lab, Project etc.)</b>		
	<b>Semester Final Exam</b>	X	<b>60</b>

**Semester Course Plan**

Week	Syllabus
<b>1</b>	Geology (Geological Structure of Turkey, Rocks Found in the Earth's Crust, Classification of Rocks According to Formation Conditions and Origins)
<b>2</b>	Formation of Soils
<b>3</b>	Physical Properties and Classification of Soils
<b>4</b>	Basic Physical Properties of Soils (Unit Volume Weight, Void Ratio, Water Content, Saturation Degree, Relative Density)
<b>5</b>	Relations Between Basic Properties of Soils
<b>6</b>	Sample Solutions
<b>7</b>	Sample Solutions
<b>8</b>	Midterm Exam
<b>9</b>	Classification of Soils, Sieve Analysis
<b>10</b>	Consistency Limits
<b>11</b>	Determination of Consistency Limits by Experiments
<b>12</b>	Soil Classification Systems
<b>13</b>	Ground Water
<b>14</b>	Calculation of Total Stress, Effective Stress, Pore Water Pressure with Depth, Sample Applications
<b>15</b>	Final Exam

**DESCRIPTION FORM OF COURSE**

<b>Course Code and Name: TTİ 228 System Analysis and Design</b>				<b>Program: Construction Technology</b>			
<b>Semester</b>	<b>Theory</b>	<b>Prac.</b>	<b>Total</b>	<b>Credits</b>	<b>ECTS</b>	<b>Language of Course</b>	<b>Course Type Compulsory/Elective</b>
Fall Semester	2	0	2	2	2	Turkish	Compulsory
<b>Prerequisites of Course</b>		There are no prerequisites.					
<b>Course Instructor</b>		Öğr. Gör. Nida SAATCI ÇELİK		<b>Mail :</b> nidacelik@munzur.edu.tr <b>Web :</b> <a href="http://www.munzur.edu.tr/birimler/akademik/mvo/tyo/bolumler/insaatBolum/Pages/akadro.aspx">www.munzur.edu.tr/birimler/akademik/mvo/tyo/bolumler/insaatBolum/Pages/akadro.aspx</a>			
<b>Aims of Course</b>		Understanding system design principles and data collection methods					
<b>Course Learning Outcomes and Competencies</b>		1. Understanding the stages of system analysis and design 2. Being able to apply the design and analysis of structural systems 3. Being able to understand the design principles of the work to be implemented in the package program. 4. Being able to perform system analysis and understand the results. 5. Being able to apply the principles of data entry to a package program. 6. Being able to save and apply the data entry method to the program.					
<b>Textbooks and /or Other Required Materials</b>		Design and Analysis of Building Systems Lecture Notes Abdulkadir CÜNEYT AYDIN, e-Profit Program					
<b>Method of delivery of the course</b>		Face to face, Online					
<b>Teaching Methods and Techniques</b>		Oral Expression, Presentation and Computer Program					

<b>Evaluation Criteria</b>		<b>If yes, please mark (X)</b>	<b>Percentage (%) Contribution to the Overall Average</b>
	<b>16. Midterm Exam</b>	X	<b>40</b>
	<b>17. Midterm Exam</b>		
	<b>18. Midterm Exam</b>		
	<b>Oral Exam</b>		
	<b>Practical Exam (Lab, Project etc.)</b>		
	<b>Semester Final Exam</b>	X	<b>60</b>

**Semester Course Plan**

<b>Week</b>	<b>Syllabus</b>
<b>1</b>	System Analysis and Design Stages
<b>2</b>	Basic Principles of System Approach
<b>3</b>	System Analysis Information Systems
<b>4</b>	System Development Process and Models
<b>5</b>	Design and Analysis of Building Systems
<b>6</b>	Models Affecting the Selection of Structural Systems
<b>7</b>	Structural System Types
<b>8</b>	Midterm Exam
<b>9</b>	Data Entry to e-Profit Program
<b>10</b>	Data Entry to e-Profit Program
<b>11</b>	Data Entry to e-Profit Program
<b>12</b>	Data Creation in e-Profit Program
<b>13</b>	Outputs in e-Profit Program
<b>14</b>	Data Results in e-Profit Program
<b>15</b>	Final Exam

**DESCRIPTION FORM OF COURSE**

<b>Course Code and Name: TTİ215 HYDRAULICS AND HYDROLOGY</b>				<b>Program: _Construction Technology</b>			
<b>Semester</b>	<b>Theory</b>	<b>Prac.</b>	<b>Total</b>	<b>Credits</b>	<b>ECTS</b>	<b>Language of Course</b>	<b>Course Type Compulsory/Elective</b>
Spring	3	0	3	3	4	Türkisch	Compulsory
<b>Prerequisites of Course</b>		There are not prerequisites.					
<b>Course Instructor</b>		Lecturer Zülfü Murat DOĞAN		<b>Mail:</b> <a href="mailto:zmdogan@munzur.edu.tr">zmdogan@munzur.edu.tr</a> <b>Web:</b> <a href="https://www.munzur.edu.tr/birimler/akademik/myo/tmyo/bolumler/insaatBolum/Pages/akadro.aspx">https://www.munzur.edu.tr/birimler/akademik/myo/tmyo/bolumler/insaatBolum/Pages/akadro.aspx</a>			
<b>Aims of Course</b>		With this course, students will be able to calculate tension and compression bars in steel structures and select the material that will carry that load under the required loads. They will be able to calculate single and multi-piece columns and make welding calculations for joining. They will be able to make roof calculations for steel structures.					
<b>Course Learning Outcomes and Competencies</b>		1. Will make the necessary calculations for tension bars in steel structures 1.1 Will make the stress checks of tension bars 1.2 Will calculate and use the necessary additional parts for the joint in the gap 2. Will make the buckling calculations for pressure bars 2.1 Will make the buckling calculations for pressure bars 2.2 Will apply the Domke method to select the pressure bar that can carry the load on it 2.3 Will make the stress checks of single-piece and multi-piece pressure bars 3. Will be able to make the necessary calculations for solid body, profile and construction beams 4. Will make the roof calculations and formation 4.1 Will calculate the necessary carrier elements that will bear the loads on the roofs 4.2 Will make the welding calculations as a joining tool by making the gusse calculations					
<b>Textbooks and /or Other Required Materials</b>		KARADUMAN Mustafa, ISBN: 975-6574-14-3. Atlas Yayınevi, İstanbul 2005, Çelik Yapılar ÖZTÜRK A. Zafer, ISBN:975-511-305-3, Birsen Yayınevi, İstanbul 2009, Çelik Yapılar ERŞEN Necati, ISBN: 975-511-034-8, Birsen Yayınevi, İstanbul 2007, Çelik Yapılar ve Çözümlemiş Problemler					
<b>Method of delivery of the course</b>		Face to face / Online					
<b>Teaching Methods and Techniques</b>		Expression, Presentation, Demonstration					

<b>Evaluation Criteria</b>		<b>If yes, please mark (X)</b>	<b>Percentage (%) Contribution to the Overall Average</b>
	<b>19. Midterm Exam</b>	X	<b>40</b>
	<b>20. Midterm Exam</b>		
	<b>21. Midterm Exam</b>		
	<b>Oral Exam</b>		
	<b>Practical Exam (Lab, Project etc.)</b>		
	<b>Semester Final Exam</b>	X	<b>60</b>

<b>Semester Course Plan</b>	
<b>Week</b>	<b>Syllabus</b>
<b>1</b>	Tensile bar stress verification applications
<b>2</b>	Single-piece pressure bar calculation principles
<b>3</b>	Applications related to single-piece pressure bars
<b>4</b>	Multi-piece pressure bars, general information and calculation principles
<b>5</b>	1st Group multi-piece pressure bar calculations
<b>6</b>	Applications related to 1st Group multi-piece pressure bars
<b>7</b>	2nd Group multi-piece pressure bar calculation principles
<b>8</b>	Applications related to 2nd Group multi-piece pressure bars
<b>9</b>	Midterm Exam
<b>10</b>	Solid body beams, profile beams and construction beams calculation principles connection types and elements
<b>11</b>	Applications for solid body and profile beams
<b>12</b>	Applications for beam joints
<b>13</b>	Steel roofs and calculation principles
<b>14</b>	Sample applications for steel roofs
<b>15</b>	Final exam

**COURSE DESCRIPTION FORM**

<b>Course Code and Name: TTİ 218 Highway Construction II</b>				<b>Program: Construction Technology Program</b>			
Semester	Theory	Application.	Sum	Loans	ECTS	Course Language	Course Type: Compulsory/Elective
Fall	2	0	2	2	2	Turkish	Optional
<b>Course Prerequisites</b>		There are no prerequisites.					
<b>Course Instructor</b>		Lecturer. Zülfükar AKSAĞAN		<b>E-mail :</b> zulfukaraksagan@munzur.edu.tr <b>Web :</b> www.munzur.edu.tr			
<b>Course Objectives</b>		With this course, the student will be able to make the curve and Dever calculations to be created during the preparation of highway projects, to process the slopes to be given to the road on the project, to make longitudinal and cross- sectional drawings at the points where the route passes, and to calculate and apply the art structures to be created with the splitting and filling works that will occur for this reason.					
<b>Course Learning Outcomes and Competencies</b>		<ol style="list-style-type: none"> <li>1. It will make the necessary dever calculations on the curves on the highway, make a cross section and apply it to the project. <ol style="list-style-type: none"> <li>1.1 Calculates rollover and skidding speeds for vehicles</li> <li>1.2 Calculates the slope to be given on the right and left sides of the road in the bend to keep the centrifugal forces within the bend</li> <li>1.3 Makes a cross-section</li> </ol> </li> <li>2. Will know the filling and splitting works, will be able to make the necessary calculations and apply them to the project. <ol style="list-style-type: none"> <li>2.1 It can make filling and splitting calculations in the past.</li> <li>2.2 You can process these operations on the project</li> </ol> </li> <li>3. Will be able to build the art structures that may be necessary for the road</li> <li>4. Will be able to comprehend all the superstructure works to be done on the road and will be able to have them done in practice</li> </ol>					
<b>Textbooks and/or Other Necessary Materials</b>		"Road Materials and Applications" – Argun Tunç, Seçkin Publishing; "Geotechnical Applications in Road Engineering" – Argun Tunç, Seçkin Publishing; "Coating Engineering and Applications" – Argun Tunç, Asil Publishing Distribution; "Highway Engineering" – Şakir Erdoğan, Birsen Publishing House; "Transportation Engineering" – Hüseyin Murat Ertan, Atlas Academy Publications.					
<b>How the course is presented</b>		Face-to-face, Online					
<b>Teaching Methods and Techniques</b>		Lecture, presentation					

<b>Evaluation Criteria</b>		<b>If yes, please tick (X).</b>	<b>Percentage (%) Contribution to the Overall Average</b>
	<b>22. Midterm Exam</b>	X	<b>40</b>
	<b>23. Midterm Exam</b>		
	<b>24. Midterm Exam</b>		
	<b>Oral Exam</b>		
	<b>Practical Exam (Laboratory, Project, etc.)</b>		
	<b>Final Exam</b>	X	<b>60</b>

<b>Semester Curriculum</b>	
<b>Week</b>	<b>Curriculum</b>
<b>1</b>	Dever Calculations (definition, calculation principles, cross-sectional drawing)
<b>2</b>	Sample applications for Dever calculations
<b>3</b>	Sample applications for Dever calculations
<b>4</b>	Sample applications for cross-section drawings
<b>5</b>	Filling and splitting works
<b>6</b>	Filling and splitting works
<b>7</b>	Filling and splitting works sample applications
<b>8</b>	Midterm Exam
<b>9</b>	Art structures, itinerary
<b>10</b>	Art structures, itinerary
<b>11</b>	Earthworks,
<b>12</b>	Earthworks,
<b>13</b>	Road pavement works
<b>14</b>	Skins

**COURSE DESCRIPTION FORM**

<b>Course Code and Name: TTİ 216 Water Supply and Waste Water</b>				<b>Program: Construction Technology Program</b>			
Semester	Theory	Application.	Sum	Loans	ECTS	Course Language	Course Type: Compulsory/Elective
Fall	2	0	2	2	2	Turkish	Optional
<b>Course Prerequisites</b>		There are no prerequisites.					
<b>Course Instructor</b>		Lecturer. Zülfükar AKSAĞAN		<b>E-mail :</b> zulfukaraksagan@munzur.edu.tr <b>Web :</b> www.munzur.edu.tr			
<b>Course Objectives</b>		It should be ensured that all project phases and basic principles starting from the water source to the point of consumption are explained.					
<b>Course Learning Outcomes and Competencies</b>		<ol style="list-style-type: none"> <li>1. Will be able to comprehend the methods of collection of waters.</li> <li>2. Will be able to comprehend the storage methods of water.</li> <li>3. Will be able to comprehend the methods of purification of water.</li> <li>4. Will be able to comprehend the principles and principles of water transmission.</li> <li>5. Will be able to recognize the methods of collection, treatment and removal of wastewater.</li> </ol>					
<b>Textbooks and/or Other Necessary Materials</b>		Prof. Yılmaz Muslu-Water Supply and Waste Water Technology-Istanbul-2003					
<b>How the course is presented</b>		Face-to-face, Online					
<b>Teaching Methods and Techniques</b>		Lecture, presentation					

<b>Evaluation Criteria</b>		<b>If yes, please tick (X).</b>	<b>Percentage (%) Contribution to the Overall Average</b>
	<b>25. Midterm Exam</b>	X	<b>40</b>
	<b>26. Midterm Exam</b>		
	<b>27. Midterm Exam</b>		
	<b>Oral Exam</b>		

	<b>Practical Exam (Laboratory, Project, etc.)</b>		
	<b>Final Exam</b>	<b>X</b>	<b>60</b>

<b>Semester Curriculum</b>	
<b>Week</b>	<b>Curriculum</b>
<b>1</b>	Explain research methods on where and how to obtain water.
<b>2</b>	Calculates the amount of water that will be needed in the future
<b>3</b>	Applications
<b>4</b>	Explain the methods of measuring the capacity and continuity of existing resources.
<b>5</b>	Explain the method of recovery of surface waters.
<b>6</b>	Explain the methods of dewatering in water accumulated on the surface
<b>7</b>	Explains the methods of taking water from spring waters and underground.
<b>8</b>	Midterm Exam
<b>9</b>	Flood protection structures
<b>10</b>	Art structures on transmission lines
<b>11</b>	Method of filtration of water
<b>12</b>	To be able to comprehend the principles and principles of water storage
<b>13</b>	To be able to comprehend the basic principles and principles of water distribution
<b>14</b>	General repetition