

**Vocational School / Construction Technology**

**2024 - 2025 Academic Year**

**CONSTRUCTION MATERIALS I**

**Syllabus**

<b>Course Description</b>					
<b>Name</b>	<b>Code</b>	<b>Semester</b>	<b>T+A Hour</b>	<b>Credit</b>	<b>ECTS</b>
CONSTRUCTION MATERIALS I	İNŞ1265270	Spring Semester	3+0	3	4
<b>Prerequisites Courses</b>					
<b>Recommended Elective Courses</b>					
<b>Language of Instruction</b>	Turkish				
<b>Course Level</b>	Short Cycle (Associate's Degree)				
<b>Course Type</b>	Required				
<b>Course Coordinator</b>	Assist.Prof. Serkan BAŞLAYICI				
<b>Name of Lecturer(s)</b>	Assist.Prof. Serkan BAŞLAYICI				
<b>Assistant(s)</b>					
<b>Aim</b>	The aims of the course is to give fundamental knowledge about type of construction materials, their usage, properties and characteristics. It is also aimed to give a theoretical background about the analysis of behavior of construction materials.				
<b>Course Content</b>	This course contains; Introduction and Terminology, Metals, Reinforcements and Properties, Polymers and Timber, Cement, Cement, Aggregates and Water, Aggregates and Water, Fresh and Early Age Properties of Concrete, Concrete Mix Design, Concrete Mix Design, Shrinkage, Hardened Concrete Properties, Concrete Admixtures, Concrete Production, Quality Control, Special Concretes, Brickwork and Blockwork.				
<b>Course Learning Outcomes</b>		<b>Teaching Methods</b>	<b>Assessment Methods</b>		
		16, 9	A		
		6, 9	A		
		16, 9	A		
<b>Teaching Methods</b>	16: Question - Answer Technique, 6: Experiential Learning, 9: Lecture Method				
<b>Assessment Methods</b>	A: Traditional Written Exam				
<b>Lecture Schedule</b>					
<b>Sequence</b>	<b>Topics</b>	<b>Preliminary Preparation</b>			
1	Introduction and Terminology				
2	Metals				
3	Reinforcements and Properties				
4	Polymers and Timber				
5	Cement				
6	Cement				
7	Aggregates and Water				
8	Aggregates and Water				
9	Fresh and Early Age Properties of Concrete				
10	Concrete Mix Design				
11	Concrete Mix Design				
12	Shrinkage, Hardened Concrete Properties				
13	Concrete Admixtures, Concrete Production, Quality Control				
14	Special Concretes, Brickwork and Blockwork				
<b>Evaluation Methods</b>		<b>Weight(%)</b>			
Midterm Exam		40			
General Exam		60			

<b>Resources</b>
Lecture notes will be given to students Kaşif Onaran Malzeme Bilimi ISBN:9789755400141 Kaşif Onaran Malzeme Bilimi Problemleri ve Çözümleri ISBN:9789755400273 Osman Şimşek Beton ve Beton Teknolojisi ISBN:9789750218972 Manfred Hegger Adım Adım Yapı Malzemeleri ISBN:9789944757676