DEPARTMENT OF CIVIL ENGINEERING
COURSE SYLLABUS

Course Details				
Code	**Academic Year**			**Semester**
BAU107	1			Fall
Title	**T**	**A**	**L**	**ECTS**
Technical Drawing	1	2	1	6

Language	German					
Level	**Undergraduate**	✓	**Graduate**		**Postgraduate**	
Department / Program	Civil Engineering					
Forms of Teaching and Learning	Formal					
Course Type	**Compulsory**	✓	**Elective**			
Objectives	This course aims to equip students with knowledge of technical drawing, including dimensioning, tolerancing, and standards. Additionally, it seeks to enable students to independently participate in 3D computer-aided design and modeling processes.					
Content	This course comprises the fundamentals of technical drawing as a source of information in design and manufacturing. It includes methods for creating and dimensioning components. It covers design hierarchy in the manufacturing process, an introduction to design methodology, the construction process, and production modularization. It also encompasses knowledge of standards and norms in technical drawing, as well as tolerancing. The course includes applications such as manually creating technical drawings of given elements while considering boundary and connection conditions. Additionally, it incorporates modeling studies using a three-dimensional computer-aided design (CAD) environment. Laboratory activities involve detailing the design with all necessary drawings. Furthermore, they comprise modeling applications within a three-dimensional computer-aided design environment.					
Prerequisites	--					
Coordinator	Prof. Dr. Murat Hamderi					
Lecturer(s)	Prof. Dr. -Ing. Michael Schick					
Assistant(s)	Res. Assist. Ozan SUBAŞI, Res. Assist. Uğur GÜNAY					
Work Placement	--					

Recommended or Required Reading	
Books / Lecture Notes	Labisch, S., & Weber, C. (2013). Technisches Zeichnen: Selbstständig lernen und effektiv üben. Springer-Verlag. Labisch, S., Wählisch, G., Labisch, S., & Wählisch, G. (2017). CAD: Technisches Zeichnen in der Praxis. Technisches Zeichnen: Eigenständig lernen und effektiv üben, 18-39.
Other Sources	--

Additional Course Material	
Documents	--
Assignments	--

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Exams	--

Course Composition		
Mathematics und Basic Sciences		%
Engineering		%
Engineering Design	50	%
Social Sciences		%
Educational Sciences		%
Natural Sciences		%
Health Sciences		%
Expert Knowledge	50	%

Assessment		
Activity	**Count**	**Percentage (%)**
Midterm Exam	1	40
Quiz		
Assignments		
Attendance		
Recitations		
Projects		
Final Exam	1	60
	Total	**100**

ECTS Points and Workload			
Activity	**Count**	**Duration**	**Work Load (Hours)**
Lectures	14	1	14
Self-Study	12	9	108
Assignments			
Presentation / Seminar Preparation			
Midterm Exam	1	2	10
Recitations	14	2	28
Laboratory	14	1	14
Projects			
Final Exam	1	2	2
		Total Work Load	**168**
		ECTS Points (Total Work Load / Hour)	**6**

Learning Outcomes	
1	Gain the ability to utilize the fundamentals of technical drawing as an information source in design and manufacturing processes.

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2	Apply basic methods for creating and dimensioning components to produce technical drawings.
3	Independently perform basic modeling processes within a three-dimensional computer-aided design environment.
4	Implement engineering approaches and use appropriate working techniques for simple designs.
5	Prepare production-ready documentation by detailing designs according to technical drawing principles.
Weekly Content	
1	Fundamentals of technical drawing as a means of information for construction and manufacturing
2	Fundamentals of technical drawing as a means of information for construction and manufacturing
3	Representation and dimensioning of components
4	Representation and dimensioning of components
5	Introduction to Design Hierarchy and Design Methodology in Production Process
6	Introduction to Design Hierarchy and Design Methodology in Production Process
7	Introduction to Standard / Norm Information
8	Midterm
9	Introduction to Standard / Norm Information, Midterm Exam.
10	Introduction to Standard / Norm Information
11	Use of tolerance information and fits
12	Use of tolerance information and fits
13	Creating Manual Technical Drawings of the Given Elements Considering Boundary and Connection Conditions
14	Elaborating the Design with All Necessary Drawings
15	Modeling with 3D Computer Aided Design
16	Final Examination

Contribution of Learning Outcomes to Program Objectives(1-5)

	P1	P2	P3	P4	P5	P6	P7
1	5	4	5	4	3	5	5
2	5	4	5	4	3	5	5
3	5	4	5	4	3	5	5
4	5	4	5	4	3	5	5
5	5	4	5	4	3	5	5

Contribution Level	1: Low 2: Low-intermediate 3: Intermediate 4: High 5: Very High

https://obs.tau.edu.tr/oibs/bologna/progLearnOutcomes.aspx?lang=en&curSunit=5728

Compiled by:	Uğur Günay
Date of Compilation:	26.02.2026