AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Construction & Industry 4.0 Interaction								
Course Code	İNA158		Couse Level	Short Cycle (Associate's Degree)					
ECTS Credit	2	Workload	50 *(Hours)*	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	The aim of this course is to make students aware of the applications of Industry 4.0 concept in construction sector.								
Course Content	Applications of Construction Industry, 3D Concrete Printing, Virtual Permeability in Construction, Construction and Work Tools Tracking with Drone, 3D Scanning, Construction Level Determination with Laser, Building Information Modeling								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Case Study, Individual Study, Problem Solving								
Name of Lecturer(s)									

Assessment Methods and Criteria		
Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	70

Recommended or Required Reading	
1	Industry 4.0, Ö. Faruk Görçün, Beta Publishing House.
2	Lecture Notes

Week	Weekly Detailed Course Contents	
1	Theoretical	Applications of Construction Projects in Turkey
2	Theoretical	Applications of Construction Projects in the World
3	Theoretical	Conventional Construction Applications
4	Theoretical	The Concept of Industry 4.0
5	Theoretical	The Concept of Industry 4.0
6	Theoretical	Industry 4.0 Construction Applications
7	Theoretical	Industry 4.0 Construction Applications
8	Theoretical	Industry 4.0 Construction Applications
9	Theoretical	Midterm
10	Theoretical	Industry 4.0 Construction Applications
11	Theoretical	Industry 4.0 Construction Applications
12	Theoretical	Industry 4.0 Construction Applications
13	Theoretical	Industry 4.0 Construction Applications
15	Theoretical	Industry 4.0 Construction Applications
16	Final Exam	Final Examination

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Reading	10	0	1	10
Midterm Examination	1	5	1	6
Final Examination	1	5	1	6
			Total Workload (Hours)	50
			[Total Workload (Hours) / 25*] = **ECTS**	2
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	Learning and Global Construction Practice in Turkey
2	Learning the Concept of Industry 4.0
3	3-Dimensional Concrete Printing and 3-D Scanning Applications
4	Information on Monitoring of Vehicle Equipment Park and Construction Level in Construction with Drone Systems
5	Knowledge of Virtual Reality Applications in Construction

Programme Outcomes *(Construction Technology)*	
1	Being able to have professional knowledge and skills as a result of being supported by the application on vocational qualifications gained in secondary education
2	To choose and use building materials
3	Building installations can be done
4	Applying concrete technology
5	Construction of roads
6	To be able to make professional computer applications
7	Technical drawings
8	Making professional drawing
9	Bidding and contracting
10	To be able to organize the site
11	Control and documentation of manufacturing
12	Can make application of building repair and strengthening works
13	To be able to determine soil types and make soil tests
14	Can control water supply and transmission activities
15	Making waste treatment facilities for polluting resources
16	Projecting of construction elements
17	Being able to make a professional project
18	Make land measurements
19	To be able to make professional practices

Contribution of Learning Outcomes to Programme Outcomes *1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High*

	L1
P1	5
P2	5
P3	5
P4	5
P5	5
P6	5
P7	5
P8	5
P9	5
P10	5
P11	5
P12	5
P13	5
P14	5
P15	5
P16	5
P17	5
P18	5
P19	5