

School of Fine Arts Design and Architecture / Architecture (English)

2023 - 2024 Academic Year

BIM and COOPERATION

Syllabus

Course Description					
Name	Code	Semester	T+A Hour	Credit	ECTS
BIM and COOPERATION	ARC3215253	Spring Semester	1+2	2	4
Prerequisites Courses					
Recommended Elective Courses					
Language of Instruction	English				
Course Level	First Cycle (Bachelor's Degree)				
Course Type	Elective				
Course Coordinator	Assist.Prof. Mustafa ERDEM				
Name of Lecturer(s)					
Assistant(s)					
Aim	Establishing BIM foundations for interdisciplinary work, time and cost management with BIM model, gaining the ability to work with BIM				
Course Content	This course contains; What is BIM? What changes does it bring to the construction industry? What can be done with BIM? Current examples ,Main differences between 3D and BIM, basics of BIM model production,Building modeling with BIM-based software (Local) ,Building modeling with BIM-based software (Local) ,Collaborative modeling of the local model,Collaborative modeling of the local model,Midterm,Clash detection and model management,Correction of detected errors in the BIM model and saga-appropriate BIM preparation of the model,Preparation of time planning of the produced BIM model (4D),Linking the time planning of the produced BIM model to the model (4D) ,Preparation of cost planning of the produced BIM model (5D),Model linking of cost planning of the produced BIM model (5D),Transferring the information/outputs obtained in the BIM environment to other environments and presenting 3D BIM (4D&5D simulation) animation.				
Course Learning Outcomes				Teaching Methods	Assessment Methods
Producing the BIM Model in accordance with international standards,Ability to work together in BIM environment (Local and cloud base),4D (work schedule) and 5D (Cost) analysis ability of the BIM model,					A, E
Teaching Methods					
Assessment Methods	A: Traditional Written Exam, E: Homework				
Lecture Schedule					
Sequence	Topics	Preliminary Preparation			
1	What is BIM? What changes does it bring to the construction industry? What can be done with BIM? Current examples				
2	Main differences between 3D and BIM, basics of BIM model production				
3	Building modeling with BIM-based software (Local)				
4	Building modeling with BIM-based software (Local)				
5	Collaborative modeling of the local model				
6	Collaborative modeling of the local model				
7	Midterm				
8	Clash detection and model management				
9	Correction of detected errors in the BIM model and saga-appropriate BIM preparation of the model				
10	Preparation of time planning of the produced BIM model (4D)				
11	Linking the time planning of the produced BIM model to the model (4D)				
12	Preparation of cost planning of the produced BIM model (5D)				
13	Model linking of cost planning of the produced BIM model (5D)				
14	Transferring the information/outputs obtained in the BIM environment to other environments and presenting 3D BIM (4D&5D simulation) animation				
Evaluation Methods		Weight(%)			
Midterm Exam		50			
General Exam		50			

Resources
Eastman, C., Teicholz, P., Sacks, R., & Liston, K. (2011). BIM handbook: A guide to building information modeling for owners, managers, designers, engineers and contractors. John Wiley & Sons.
Eastman, C., Teicholz, P., Sacks, R., & Liston, K. (2011). BIM handbook: A guide to building information modeling for owners, managers, designers, engineers and contractors. John Wiley & Sons.
Weygant, R. S. (2011). BIM content development: standards, strategies, and best practices. John Wiley & Sons.