



ECTS COURSE INFORMATION FORM

School/Faculty/Institute	Faculty of Arts, Design and Architecture	
Program	B.Sc. in Architecture	Required

Course Code	FADA 212		
Course Title in English	Digital Communication 2		
Course Title in Turkish	Dijital İletişim 2		
Language of Instruction	English		
Type of Course	Flipped learning		
Level of Course	Undergraduate		
Semester	Spring		
Contact Hours per Week	Lecture:	Recitation:	Lab: Studio:3
Estimated Student Workload	143 hours per semester.		
Number of Credits	6 ECTS		
Grading Mode	Standard Letter Grade		
Pre-requisites	FADA 211 Digital Communication I		
Expected Prior Knowledge	Basic modelling, basic digital representation tool usage		
Co-requisites	None		
Registration Restrictions	Only Undergraduate Students		
Overall Educational Objective	To bring architectural representation techniques into the computer realm		
Course Description	<p>The course focuses on advanced 3D modeling, parametric design tools and advanced digital representation techniques in architectural and interior design. It uses previous basic 3d modelling and representation learnings from FADA 211 course as basis to improve. For this purpose, Rhinoceros 5 is used as a 3D modeling tool together with Grasshopper plugin as a parametric design tool. Different media types are introduced to enrich representation techniques and express the potential of architectural design through various programs: Adobe Premiere for video and motion editing, Adobe Photoshop and Illustrator for image manipulation and diagramming and Adobe Indesign for layouts are used. The application of the techniques will be explicit within a digital premise, which include image manipulation, diagrams and modeling.</p>		
Course Description in Turkish	<p>Ders ileri derece 3 boyutlu modelleme, parametrik tasarım araçları ve ileri derece dijital temsil tekniklerine odaklanmaktadır. FADA 211 dersinin kapsadığı temel modelleme ve dijital temsil bilgileri ileri modelleme ve temsil konuları için temel oluşturur. Bu amaçla 3 boyutlu modellemede Rhinoceros 5 programı, parametrik tasarım için Grasshopper eklentisi ile birlikte kullanılmıştır. Dijital temsilin potansiyellerini keşfetmek ve farklı medya türlerine hakim olmak için çeşitli programlar kullanılmıştır: Video ve hareketli imaj üretimi için Adobe Premiere, imaj düzenleme, ve diyagram üretimi için Adobe Photoshop ve Illustrator, son olarak da poster ve kitapçık tasarımı, dizgisi için Adobe Indesign kullanılmıştır.</p>		
Course Learning Outcomes and Competences	<p>Upon successful completion of the course, the learner is expected to be able to:</p> <ol style="list-style-type: none">1. understand the powerful role of digital communication techniques for architectural representation;2. represent the existing environment by diagrams, mappings, modeling, rendering and graphic presentation qualitatively and quantitatively;3. express the ideas by means of digital graphical methods;		

4. use parametric design tools;
5. use renderings and graphic visualization in the digital medium by means of hybrid representations.

Relation to Program Outcomes and Competences: N=None S=Supportive H=Highly Related

Program Outcomes and Competences	Level N/S/H	Assessed by
1. Ability to read, write and speak effectively in Turkish and English, equivalent to a B2 European Language Passport Level in English.	S	Reviews, HW, Assignment.
2. Ability to question and interpret ideas considering diverse points of view; gather and use data, develop concepts related to people, places and the environment, and make individual decisions.	S	
3. Ability to use appropriate graphical methods including freehand and digital drawing techniques, (ECDL advanced) in order to develop ideas in addition to communicate the process of design.	H	Assignments, Presentations
4. Ability to use fundamental principles of architectural design considering the place, climate, people, society as factors, and simultaneously express present principles in relevant precedents.	S	
5. Understanding of architectural principles belonging to global and local cultures shaped by the climatic, technological, socioeconomic, cultural factors, in addition to principles of historic preservation while developing architectural and urban design projects.	N	
6. Understanding the theories and methods used to describe the relationship between human behavior and physical environment; and concurrently understanding different needs, values, behavioral norms, social and spatial patterns of different cultures.	S	
7. Ability to apply various stages of design processes considering the client and user needs, which include space and equipment requirements besides site conditions and relevant laws and standards.	S	
8. Understanding the role of applied research in determining function, form and systems and their impact on human conditions and behavior.	N	
9. Understanding of the basic principles of static and dynamic structural behavior that withstand gravity and lateral forces, in addition to the evolution and applications of structural systems.	N	
10. Ability to apply the principles of sustainability in architectural and urban design projects that aim to preserve the natural and historic resources and provide healthful environments.	N	
11. Ability to apply the fundamental principles of building and safety systems such as mechanical, electrical, fire prevention, vertical circulation additionally to principles of accessibility into the design of buildings.	N	
12. Understanding the basic principles in the selection of materials, products, components and assemblies, based on their characteristics together with their performance, including their environmental impact and reuse possibilities.	N	
13. Ability to produce a comprehensive architectural project from the schematic design phase to design development phase, while integrating structural systems, life safety and sustainability principles.	S	
14. Understanding the principles of environmental systems such as energy preservation, active and passive heating and cooling systems, air quality, solar orientation, day lighting and artificial illumination, and acoustics; in addition to the use of appropriate performance assessment tools.	N	
15. Ability to choose appropriate materials, products and components in the implementation of design building envelope systems.	N	
16. Ability to understand the principles and concepts of different fields in multidisciplinary design processes and the ability to work in collaboration with others as a member of the design team.	S	Assignments
17. Understanding the responsibility of the architect to organize and lead design and construction processes considering the environmental, social and aesthetic issues of the society.	N	
18. Understanding the legal to responsibilities of the architect of the architect effecting the design and construction of a building such as public health and	N	

safety; accessibility, preservation, building codes and regulations as well as user rights.		
19. Ability to understand the ethical issues involved in the design and construction of buildings and provide services for the benefit of the society. In addition to the ability to act with social responsibility in global and local scales that contribute to the well being of the society.	N	
20. Understanding the methods for competing for commissions, selecting consultants and assembling teams, recommending project delivery methods, which involve financial management and business planning, time management, risk management, mediation and arbitration.	N	
Prepared by and Date İrem Korkmaz 10.03.2020		
Semester Spring 2019-2020		
Name of Instructor Çağlar Yılmaz, Turan Altıntaş, Eren Öztürk		
Course Contents	Week	Topic
	1.	Rhino 3D – Grasshopper – Introduction
	2.	Rhino 3D – Grasshopper – Adaptation – Math Operations
	3.	Rhino 3D – Grasshopper – Attractor Point
	4.	Rhino 3D – Grasshopper – Paneling & Morphing
	5.	Rhino 3D – Grasshopper – Presentation (Digital Fabrication)
	6.	Adobe Illustrator & Premiere– Preparing Video Materials and Basic Video
	7.	Adobe Premiere – Video Editing, Animation - Dynamic Visualizations
	8.	Rhino 3D – Vray – Advanced Materials – Texture and Mapping
	9.	Rhino 3D – Vray – Advanced Lighting and Camera
	10.	Adobe Photoshop – Post Production
	11.	Adobe Illustrator – Vectoral Drawing and Diagramming
	12.	Adobe Indesign – Introduction
	13.	Adobe Indesign – Poster and Booklet Layout
	14.	Student work presentation and feedback
	15.	Final Assessment
	16.	Final Assessment
Required/Recommended Readings	Recommended Reading: Schwartz, L (2004) Adobe Photoshop for VFX Artists, Course Technology PTR, New York. Alspach, T (2009) Illustrator CS4 bible, Wiley Pub., Indianapolis. R McNeel & Associates, (2006) Rhinoceros Level 1 Training Manual, Robert McNeel & Assoc, Seattle. R McNeel & Associates, (2006) Rhinoceros Level 2 Training Manual, Robert McNeel & Assoc, Seattle. Chiang C. and Alomar D., (2009), Rendering Plugin For Designers, ASGVIS, U.S.A.	
Teaching Methods	In-class applications, Assignments and student presentations related with different programs and skills. The methodology unfolds the use of Digital Communication to a conceptual manipulation design should engage from the earliest stages of the design process. Through the use of technical drafting and modeling techniques, digital communication also studies rendering and post-processing phase of image and graphic presentation. Across an array of visual representations that include but are not limited to modeling, drafting rendering and graphic design the methods describe the conveyance of ideas and information in forms that can be read or looked upon.	
Homework and Projects	10 pre-class quiz, 6 assignments (1 as a presentation) and 1 final submission	
Laboratory Work	-	
Computer Use	Yes	
Other Activities		
Assessment Methods	1. Pre-class quizzes:	10 points

	2. Assignment1: 10 points 3. Assignment2: 10 points 4. Assignment3: 10 points 5. Assignment4: 10 points 6. Assignment5: 10 points 7. Assignment6: 10 points 8. Final Submissions: 30 points (stands for final examination)
Course Administration	Email: yilmazca@mef.edu.tr Student participation will be essential for the visual communication studio. Attending both submissions including the Final Portfolio Submission are crucial elements in the final grade. Late submissions will not be accepted. 70% attendance are compulsory for a successful outcome. Academic Dishonesty and Plagiarism: YÖK Disciplinary Regulation.

ECTS Student Workload Estimation	Activity	No/Weeks	Hours			Calculation	Explanation
		No/Weeks per Semester (A)	Preparing for the Activity (B)	Spent in the Activity Itself (C)	Completing the Activity Requirements (D)		
	Lecture	14	1	3		56	A*(B+C+D)
	Lab etc.					0	
	Midterm(s)					0	A*(B+C+D)
	Assingment, Project, Presentation	6	8	1	1	60	A*(B+C+D)
	Final Assignment	1	25	2		27	A*(B+C+D)
	Total Workload					143	
	Total Workload/25					5,72	
	ECTS					6	