



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Three Dimensional Modelling Design							
Course Code		BPR191		Course 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 teach how to design and design 3D computer models and animations and to develop 3D educational content using 3Ds Max program.							
Course Content		3D modeling is the process of developing a three-dimensional mathematical model of a living or inanimate object with special programs for 3D modeling in general using computer graphics. The 3D models prepared with the 3D modeling process are often used simultaneously with the tools that provide a realistic look to the 3D rendering model. In the process of 3D modeling, the data of the computer graphics are usually obtained by the user by step processing like sculpture and plastic arts. In most cases, manual 3D modeling can be performed automatically by the user. Automated 3D modeling can be done by entering certain values ??into previously made algorithms or by various scanning devices such as a 3D scanner. For example, MRIs used in hospitals serve as a kind of 3D scanner. Turkey and areas in the world, which is quite extensive 3D modeling, manufacturing as it used to make three-dimensional model of a structure to be constructed model is also used for the preparation of a product to be made. Today, the history of 3D models, which become an indispensable part of the gaming and animation world, is even older than personal computers. At the beginning, we apply for interactive presentations such as films, video games, 3D models used in interior design and architecture, and anatomy in the medical sector. In this context, examining the sample applications and developing new 3D model designs suitable for the content form the content of the course.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Discussion, 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	3D Studio Max (Kodlab)
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Week	Weekly Detailed Course Contents	
1	Theoretical	Introduction to 3D model and animation in education
2	Theoretical	3D modeling and animation programs, basics of 3Ds Max program, menus of 3Ds Max program, usage of 3Ds Max tees,
3	Theoretical	3D modeling bases, explaining the properties of different modeling methods, working with sub-objects
4	Theoretical	Curve modeling, working with sub-objects of 2D objects
5	Theoretical	Expansion and collapse, use of Loft command, polygon edges softening
6	Theoretical	Modeling for motion graphics, using some 2D editors
7	Theoretical	Modeling for motion graphics, using some 2D editors
8	Theoretical	Polygon modeling technique, modeling lines, use of regulators, subsections of surface modeling
9	Intermediate Exam	midterm
10	Theoretical	Polygon modeling with modeling strip, Introduction to Nurbs modeling, editing of curves and surfaces
11	Theoretical	Using material bases and usage, adjusting opacity, using transactional overlay and bitmaps
12	Theoretical	Camera creation and viewing angle adjustment, Lighting bases and stage light settings
13	Theoretical	Key frame animations, transition animation preparation, repetitive animation creation.
14	Theoretical	Hierarchies, linking objects and playing a hierarchy and optimizing animation
15	Theoretical	Animation controls, gripping controllers and using the motion panel
16	Final Exam	Final Examination



Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Assignment	1	0	5	5
Term Project	1	0	5	5
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	They will have the ability to design 2-D character and multi-angle design planning required for 3-D modeling.
2	They will have concept design knowledge that can meet their animation production needs.
3	Will be able to transfer 2D designs to 3D space
4	They will have the ability to conceptualize a design idea.
5	Have an idea about the aesthetic dimension of design
6	To have the necessary drawing techniques and skills during the animation design process
7	To be able to define 3D animation software and materials

Programme Outcomes (Automotive Technology)

1	To be able to interpret and evaluate data, identify problems, analyze them, and develop evidence-based solutions by using basic knowledge and skills in the field.
2	Must be able to choose and effectively use the modern techniques, tools and information technologies necessary for field related applications.
3	Must be able to gain practical skills by examining relevant processes in industry and service sector on site.
4	They must be able to produce solutions, take responsibility for teams or do individual work when they encounter situations unforeseen in the field related applications.
5	Awareness of the need for lifelong learning; it must be able to follow the developments in science and technology and to constantly renew itself.
6	Must be able to use computer software and hardware at the basic level required by the field
7	Must have job security, worker health, environmental protection knowledge and quality awareness.
8	He must possess a level of foreign language knowledge that is capable of following the innovations in his area of expertise and communication techniques.
9	Must be able to acquire basic theoretical and practical knowledge about the field in mathematics, science and basic engineering.
10	It should have the ability to plan the processes / processes of the Automotive Program to meet the expectations of the sector.
11	To be able to design the systems and components related to the field by using technical drawing, computer aided drawing, designing using simulation programs and using various softwares, to be able to make basic sizing calculations, to be able to master professional plans and projects.

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

	L1	L2	L3	L4	L5	L6	L7
P5	3	3	3	3	3	3	3
P11	3	3	3	3	3	3	3

