

Dentistry (English)			
Bachelor	TR-NQF-HE: Level 6	QF-EHEA: First Cycle	EQF-LLL: Level 6

Course Introduction and Application Information

Course Code:	UNI309		
Course Name:	Introduction to Metaverse		
Semester:	Spring Fall		
Course Credits:	<div>ECTS</div> <div>5</div>		
Language of instruction:	English		
Course Condition:			
Does the Course Require Work Experience?:	No		
Type of course:	University Elective		
Course Level:	<div> <div>Bachelor</div> <div>TR-NQF-HE:6. Master`s Degree</div> <div>QF-EHEA:First Cycle</div> <div>EQF-LLL:6. Master`s Degree</div> </div>		
Mode of Delivery:	E-Learning		
Course Coordinator:	Prof. Dr. HATİCE ÖZ PEKTAŞ		
Course Lecturer(s):	Michael Barngrover		
Course Assistants:			

Course Objective and Content

Course Objectives:	The main objective of the course is to develop within students an understanding of the core components of the metaverse and an awareness of its potential impacts on society. By the end of the class, students will possess developed ethical positions on many of the important metaverse topics.

Course Content:	<p>The course introduces fundamental elements that form the foundation of various conceptualizations of “The Metaverse”. Topics to be presented and discussed include shared spatialization, digital mediation of reality, socialization, and assigning value to digital objects. The course will devote significant time to discussions of ethics and the impacts that digitization will have on non-digital aspects of society. Students will be required to research and write several essays throughout the course and design a metaverse scenario as a final group project.</p> <p>Online class sessions will frequently take place inside of 2D and 3D “metaverse platforms”. Students will be expected to know how to use their keyboard and mouse/touchpad to navigate these spaces and to use their microphone effectively.</p> <p>This is not a course focused on cryptographic topics. Blockchains, cryptocurrencies, and NFTs will not be the focus of the course, although these subjects will be included in discussions of metaverse economics and concepts of ownership.</p>
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Learning Outcomes

The students who have succeeded in this course;

- 1) Understand the concept and components of the Metaverse.
- 2) Understand the role and impact of avatars in the Metaverse learning environment.
- 3) Explore tools and modalities for synchronous learning in the Metaverse.
- 4) Address accessibility and equity considerations in designing inclusive Metaverse learning experiences
- 5) analyze the impact of diverse perspectives and cultures on Metaverse learning.

Course Flow Plan

Week	Subject	Related Preparation
1)	he concept and the evolving dynamics of Metaverse	
2)	origins of metaverse and its impact on various industries	
3)	understanding the Metaverse's interactive digital environments, virtual reality (VR), augmented reality (AR), and mixed reality (MR)	
4)	understanding the Metaverse's interactive digital environments, virtual reality (VR), augmented reality (AR), and mixed reality (MR)_2	
5)	ethical, legal, and privacy considerations related to Metaverse	
6)	leveraging Metaverse for business growth, virtual reality, gaming and social interactions_1	
7)	leveraging Metaverse for business growth, virtual reality, gaming and social interactions_2	

8)	midterm week	
9)	3D modeling, programming, blockchain understanding, virtual reality integration, and AR development	
10)	concepts of dataspace management, virtual economies, digital asset creation, and setting up interactive experiences	
11)	future possibilities and innovations in the Metaverse ecosystem	
12)	Student presentations	
13)	Student presentations	
14)	Student presentations	
15)	final week	
16)	final week	

Sources

Course Notes / Textbooks:	Readings to be assigned and provided in class Access to VR headsets and library of VR experiences Computers capable of opening webVR sites
References:	Readings to be assigned and provided in class Access to VR headsets and library of VR experiences Computers capable of opening webVR sites

Course - Program Learning Outcome Relationship

Course Learning Outcomes	1	2	3	4	5
Program Outcomes					
1) Has basic and up-to-date knowledge in the field of dentistry, follows scientific publications, and applies evidence-based data to his/her professional practice.					
2) Knows well and effectively uses devices, tools, and materials specific to diagnosis and treatment in the field of dentistry.					
3) Evaluates the knowledge in the field of dentistry critically, integrates it with the knowledge of disciplines in the field of health, uses it by analyzing and synthesizing it.					
4) Produces projects related to the field of dentistry, can work with other health disciplines, takes part as a member of the research team and evaluates and reports					

the results obtained at a scientific level.					
Course Learning Outcomes	1	2	3	4	5
5) Uses information that will contribute to the dentistry profession during practice, takes responsibility, and produces solutions in unforeseen situations.					
6) Shares, compares, and exchanges dental knowledge with professional colleagues in social and scientific environments in written, verbal, and visual forms.					
7) Within the framework of social, scientific, and ethical values including patient privacy, communicates with patients and their relatives, knows all the characteristics of the patient, and recommends the most appropriate treatment with a patient-centered approach.					
8) Follows technological developments, participates in national and international studies, and shares and presents own observations, experiences, and research to further advance dental practices.					
9) By adopting the principle of lifelong learning throughout the dentistry profession, follows current evidence-based dental knowledge and uses it during his professional practice.					
10) During dental practice, in cases such as abuse and addiction, performs the treatment by exhibiting the behaviors required by social ethics and legal rules, and collects and records the relevant data.					
11) Uses basic and current knowledge in the field of dentistry during professional practice for the benefit of society within the framework of national values and country realities.					
12) In natural disasters and emergency cases, takes the protective measures required by the dentistry profession; performs professional practices that benefit patients and society					
13) Generates ideas regarding health policy in dentistry, prioritizes individual and public health, and carries out preventive and therapeutic medical practices within the framework of scientific, ethical, and quality processes.					
14) Differentiates the signs and symptoms commonly encountered in the dentistry profession, makes a treatment plan and refers when necessary, and manages diseases and clinical situations regarding their urgency and patient priority.					
15) Can assume the leadership responsibility of the team he/she works for, manage it following scientific criteria, and support the professional development of the team.					

Course - Learning Outcome Relationship

No Effect	1 Lowest	2 Average	3 Highest

	Program Outcomes	Level of Contribution
1)	Has basic and up-to-date knowledge in the field of dentistry, follows scientific publications, and applies evidence-based data to his/her professional practice.	
2)	Knows well and effectively uses devices, tools, and materials specific to diagnosis and treatment in the field of dentistry.	
3)	Evaluates the knowledge in the field of dentistry critically, integrates it with the knowledge of disciplines in the field of health, uses it by analyzing and synthesizing it.	
4)	Produces projects related to the field of dentistry, can work with other health disciplines, takes part as a member of the research team and evaluates and reports the results obtained at a scientific level.	
5)	Uses information that will contribute to the dentistry profession during practice, takes responsibility, and produces solutions in unforeseen situations.	
6)	Shares, compares, and exchanges dental knowledge with professional colleagues in social and scientific environments in written, verbal, and visual forms.	
7)	Within the framework of social, scientific, and ethical values including patient privacy, communicates with patients and their relatives, knows all the characteristics of the patient, and recommends the most appropriate treatment with a patient-centered approach.	
8)	Follows technological developments, participates in national and international studies, and shares and presents own observations, experiences, and research to further advance dental practices.	
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15)	Can assume the leadership responsibility of the team he/she works for, manage it following scientific criteria, and support the professional development of the team.	

Assessment & Grading

Semester Requirements	Number of Activities	Level of Contribution
Project	1	% 40
Midterms	1	% 30
Final	1	% 30
total		% 100
PERCENTAGE OF SEMESTER WORK		% 70
PERCENTAGE OF FINAL WORK		% 30
total		% 100

Workload and ECTS Credit Calculation

Activities	Number of Activities	Workload
Course Hours	14	42
Study Hours Out of Class	14	14
Project	5	21
Midterms	3	21
Final	3	21
Total Workload		119