

Course Syllabus

| Course Code | Course Title | ECTS Credits |
|-----------------------|---|-------------------------|
| META-527DL | User Experience and Interactive Design | 10 |
| Prerequisites | Department | Semester |
| None | Digital Innovation | Fall/Spring |
| Type of Course | Field | Language of Instruction |
| Elective | Metaverse | English |
| Level of Course | Lecturers | Year of Study |
| 2 nd Cycle | Dr. Leonidas Katelaris and Fanos Katsaris | 1 st |
| Mode of Delivery | Work Placement | Corequisites |
| Distance Learning | N/A | N/A |

Course Objectives:

The main objectives of the course are to:

- 1. Provide students with an in-depth and systematic view of UX and interactive design in Metaverse
- 2. Equip students with an understanding of the main principles, practices and challenges related to UX and interactive design in Metaverse
- 3. Explore and analyse UX and interactive design examples and cases
- 4. Equip students with the skills to design and develop UX in Metaverse

Learning Outcomes:

After completion of the course students are expected to be able to:

- 1. Understand the principles and potential of Metaverse for interactive design, and the unique challenges and opportunities for UX and interactive design in the Metaverse.
- 2. Design user personas, user journeys, navigation systems, social features, interactions, virtual communities, and immersive experiences in the Metaverse.
- 3. Conduct user research and testing, incorporate user feedback into iterative design processes, and prototype and refine Metaverse designs for accessibility, performance, and interaction design.
- 4. Apply the knowledge, principles and methodologies learned in the course to design and develop projects on Metaverse UX and interactive design.



Course Content:

Session 1: Metaverse, UX and Interactive Design

- Metaverse and its potential for interactive design
- UX design and its role in Metaverse
- User experience and interactive design principles and methodologies
- Unique challenges and opportunities for UX and interactive design in the Metaverse

Session 2: Navigation and Customization in the Metaverse

- Principles of user experience design in Metaverse
- Developing user personas and user journeys in Metaverse
- Best practices for designing navigation systems in the Metaverse
- Designing avatars and virtual environments for customization and personalization
- User testing and feedback for navigation and customization design

Session 3: Communication and Social Interaction in the Metaverse

- Understanding social interaction and its importance in Metaverse
- Social norms and communication styles in the Metaverse
- Designing for social presence and social immersion
- Creating virtual communities and social experiences in Metaverse
- Principles and practices for designing social features and interactions
- Strategies for promoting positive social behavior and mitigating negative behavior

Session 4: Immersion and Content Design in the Metaverse

- Understanding how immersion can impact the user experience in the Metaverse
- Interaction design in immersive environments
- Conducting user research in immersive environments
- Best practices for designing immersive experiences and content
- Designing for different devices and platforms
- User testing and feedback for immersion and content design

Session 5: Accessibility and Performance in the Metaverse

- Understanding the importance of accessibility in the Metaverse
- Designing accessible Metaverse experiences
- Strategies for ensuring high performance and low latency in the Metaverse

Session 6: Interaction Design in Virtual Environments

- Interactive design practices in the Metaverse
- Designing objects and interfaces for interaction in virtual environments
- User testing and feedback for virtual environment interaction design



Session 7: Advanced Interaction Design Techniques for the Metaverse

- Exploring emerging trends and cutting-edge technologies in interactive design for the Metaverse
- Designing for mixed reality and augmented reality experiences in the Metaverse
- Strategies for integrating machine learning and AI technologies into interactive design in the Metaverse

Session 8: Metaverse Case Studies and Future Developments

- Review of case studies of successful Metaverse UX and interactive design projects
- Analysis of emerging trends and developments in the Metaverse
- Discussion of future challenges and opportunities for UX and interactive design in the Metaverse

Session 9: User Research and Testing in the Metaverse

- Best practices for conducting user research and testing in the Metaverse
- Strategies for gathering and analyzing user feedback in the Metaverse
- Incorporating user feedback into iterative design processes in the Metaverse

Session 10: Prototyping and Iterative Design in the Metaverse

- Prototyping and iterative design in the Metaverse
- Strategies for designing and refining Metaverse experiences based on user feedback
- Tools and techniques for prototyping and testing Metaverse designs

Session 11: Collaborative Design and Development in the Metaverse

- Methods and practices for collaborating on Metaverse design and development projects
- Strategies for managing distributed teams and remote collaboration in the Metaverse
- Tools and technologies for collaborative design and development in the Metaverse

Session 12: Final Project and Presentation

- Students will apply the principles and methodologies learned in the course to design and present their own Metaverse UX and interactive design project
- Peer review and feedback on final projects
- Wrap-up and discussion of the future of UX and interactive design in the Metaverse

Learning Activities and Teaching Methods:

- Faculty Lectures
- Guest-Lectures Seminars
- Directed and Background Reading
- Case Study Analysis
- Simulations
- Student-led Presentations
- In-Class Exercises



Assessment Methods:

- Interactive activities and classroom participation
- Project
- Final exams

Assessment Methods in alignment with Intended Learning Outcomes:

| | | Intended Learning Outcomes to be assessed | | | |
|--------------------------|-----------|---|-----|-----|-----|
| Assessment Method | Weighting | LO1 | LO2 | LO3 | LO4 |
| Interactive activities | 15% | ✓ | ✓ | ✓ | |
| Project | 25% | ✓ | ✓ | ✓ | ✓ |
| Exams | 60% | ✓ | ✓ | ✓ | |

Student Study Effort Expected:

| Student Study Effort Expected | Hours | |
|--|-------|--|
| Lectures | 12h | |
| Project | 80h | |
| Interactive activities and forum participation | 15h | |
| Reading and research | 140h | |
| Exam | 3h | |
| Total | 250h | |

Required Textbooks / Readings:

| Title | Author(s) | Publisher | Year | ISBN |
|---|------------|-----------|------|----------------|
| 97 Things Every UX Practitioner Should Know | Dan Berlin | O'Reilly | 2021 | 978-1492085171 |

Recommended Textbooks / Readings:

- Bartle, R. A. (2004). Designing Virtual Worlds. New Riders. ISBN: 978-0131018167
- Delgado B. (2022). User experience (UX) in Metaverse: realities and challenges. Metaverse Basic and Applied Research, 1, 9. Available at https://www.researchgate.net/publication/366668118_User_experience_UX_in_metaverse_realities_a nd_challenges/fulltext/63b17da1a03100368a45c0cb/User-experience-UX-in-metaverse-realities-and-challenges.pdf



- Jerald, J. (2015). The VR Book: Human-Centered Design for Virtual Reality. ACM Book. ISBN: 978-1970001129
- Yablonski, J. (2020). Laws of UX. O'Reilly. ISBN: 978-1492055310
- Szabo, P. W. (2017). User Experience Mapping: Enhance UX with User Story Map, Journey Map and Diagrams. Packt Publishing. ISBN: 978-1787123502
- Truog, D. (2022). Ten Principles For Designing The Metaverse. Forrester. Available at https://www.forrester.com/blogs/designing-the-Metaverse/
- Yayici, E. (2022). Web3 UX Design Mentor Book. UX Services.