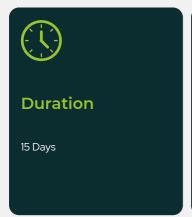


# EXTENDED REALITY PRODUCTION (AR & VR)

This course is designed to be a broad learning experience around all things augmented, virtual, and mixed reality. The 3 courses cover the fundamental concepts of XR, how to design and develop XR applications, how to discuss the emerging key issues in the landscape of XR, and how to bring XR into instructional settings.

### **Course Details**









## **Course Objectives**

After completing this course, participants are expected to be able to:

- Learn the underlying concepts, enabling technologies, and key applications for all things XR
- Understand key issues and developments in XR and learn how to address them in the design and development of XR applications
- Design and develop your own XR applications





## **Course Outline**

#### Lesson 1 - Intro to AR/VR/MR/XR: Technologies, Applications & Issues

- Explain the conceptual and technological differences between VR, AR, MR, and XR.
- Understand the strengths and weaknesses of VR and AR for new XR applications.
- Summarize the XR technology landscape in terms of platforms, devices, applications, and tools.
- Devise a strategic plan to incorporate XR into new projects and initiatives.

#### Lesson 2 - User Experience & Interaction Design for AR/VR/MR/XR

- Critique new and existing XR experiences from an ethical standpoint.
- Create storyboards and physical prototypes of new XR experiences.
- Create XR prototypes with digital and immersive authoring tools.
- Infer technical requirements for implementing your XR prototypes.

# Lesson 3 - Developing AR/VR/MR/XR Apps with WebXR, Unity & Unreal

- Create basic and immersive VR scenes in WebXR or Unity.
- Create marker-based and marker-less AR scenes in WebXR or Unity.
- Understand fundamental concepts and techniques for advanced XR applications.
- Develop XR applications with ethics, accessibility, and privacy in mind.



