Professional Certificate in Mobile App Development (50.0411)

This continuing education certificate teaches skills and competencies in user experience design, programming, scripting, and mobile app development. There curriculum focuses on developing and programming mobile interactive media, creating virtual and augmented reality experiences, and designing user-centered interactions. The certificate includes instruction in prototyping, troubleshooting, and scripting applications in integrated development environments, developing immersive experiences in game engines, and creating participant-centered experiences through design thinking. Taught by industry experts, students learn through hands-on application of real-world examples and concepts. Completing the program empowers learners to take advantage of their creative ideas and pursue employment opportunities in multiple industries such as app development, augmented and virtual reality, and product development.

Upon completion of this certification, students should be able to:
- identify the role of an effective user experience designer within a collaborative development environment;
- apply design thinking to identified problems to arrive at an effective solution.
- evaluate qualitative and quantitative data as the result of user testing;
- propose solutions that are based upon data and information from the user-centered design process;
- create and prototype participant-centered products and interfaces.
- demonstrate the process of creating apps for Apple devices;
- define key programming terms relevant to Swift and iOS programming;
- build complex projects using coding best practices, further integrating your own creative entrepreneurial ideas into designs;
- complete an app project to add to your portfolio;
- sketch and storyboard a VR/AR concept before they begin work;
- use a 3D Engine (Unity) to create 3D experiences and scenes;
- perform basic programming in C# and create scripts to power their VR/AR Scenes.
- create a virtual environment using models and terrain deformation;
- create ergonomic interactions for movement and exploration in VR experiences;
- place virtual objects in the real world with AR experiences;
- make virtual objects interact with real-world objects in their AR experiences; and
- create user interfaces to round out their AR/VR experiences.

Required Courses:

INMD 1100 Introduction to User Experience Design
INMD 1201 Developing Augmented and Virtual Reality Apps
PROG 1200 App Design with Swift Programming