

# CSCI 8980: Immersive User Interfaces

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**Description:** The goal of this course is to provide a comprehensive overview of the state-of-the-art and current research trends in virtual, mixed, and augmented reality, with a focus on 3D user interfaces and interaction techniques. Classroom topics will encompass both theory and practice, including immersive displays, motion tracking, navigation, selection, manipulation, system control, design guidelines, and evaluation methods. Course activities will also include presentations, critical discussion, and implementation of interaction techniques from notable research papers in the field. For the final project, students will identify and propose a novel immersive user interface concept that will be further developed into a functional prototype.

**Eligibility:** This course is primarily intended for graduate students that wish to learn more about immersive user interfaces from a scientific research perspective. Advanced undergraduates may also be considered with permission from the instructor.

**Prerequisites:** Solid programming skills; familiarity with basic principles of computer graphics and 3D transformations. Prior experience with Unity is beneficial, but not required.

**Textbook:** 3D User Interfaces: Theory and Practice (Second Edition). ISBN: 978-0134034324.

