## CGDD 4303: Educational and Serious Game Design

### 3 Credit Hours

Prerequisite: CGDD 4003

This course presents the history, theory, and current best practices of serious gaming and the use of serious games to educate and train. This course focuses on how to engage and entertain while presenting informative interfaces to the user. Topics include motivation, designing engaging learning interfaces, knowledge transfer from the game environment to the real world, assessment of learning, and instructional value. A design/prototype project is required.

# CGDD 4313: Designing Online Learning Content and Environments 3 Credit Hours

This course explores the use of online environments to present educational content for users. Topics include: interaction patterns in online learning environments, providing accessible and intuitive materials, multi-modal presentations of content, and the benefits and limitations of online learning environments. This course requires a critique of existing online environments and the development of a new learning environment, and human-computer interaction issues are an important consideration for this course.

## **CGDD 4400: Directed Study**

#### 1-3 Credit Hours

Prerequisite: By Instructor's or Department's permission.

This course enables the study of special topics of an advanced nature that are not in the regular course offerings. Students will complete a research project on a topic in the subject area of computer game design and development or related areas supervised by a faculty member. Credit hours vary from one to three depending on the nature and content of the project student involved. Up to three credits may be applied to the major area.

## **CGDD 4490: Advanced Topics**

### 3 Credit Hours

Prerequisite: Permission of the CGDD Department

This course offers advanced topics selected by the CGDD Department. The course covers special topics at the senior level that are not in the regular course offerings.