## Program Mission

The mission of the undergraduate Game Design and Development program is to prepare students for careers within the entertainment technology landscape as well as other related areas, while still pursuing a broad-based university education. The program stresses its technical roots in the Computing and Information Sciences disciplines while engaging in the breadth of development processes through experiences in game design, design process, as well as the asset creation and production pipeline.

The program focuses on interactive systems development, but meets the industry need for developers who are involved in the totality of the design process. The program is intended specifically for students who aspire to hold careers within the professional games industry or a related field such as simulation, instruction or visualization, and focuses on preparing graduates who understand the technical roots of their medium, the possibilities that creative application of software development affords, and the way in which the digital media industry operates. In addition, the program provides graduates with a core computing education that will prepare them both for graduate study in a number of computing fields and for employment in more general computing professions.

## Program Goals

We expect that graduates of the Bachelor of Science in Game Design and Development program, three to five years after the date of graduation, will:

1. combine concepts in essential knowledge domains such as programming, mathematics, physics, and game design towards the realization of game design and development applications or related media-centric works.
2. work productively as game application developers, game designers, simulation and visualization application developers, and/or process tool developers within the games industry or a related media-centric discipline.
3. effectively communicate within the profession as well as recognize and interpret technical, social, cultural, ethical, and global indicators within the field.
4. work effectively in multidisciplinary concept design and/or software development teams.

## Student Learning Outcomes

Upon completing the Bachelor of Science in Game Design and Development, students will be able to:

1. apply knowledge of programming, math, physics, and game design to the field of game design and development (embodies Institute Program Outcomes 1 and 4 as well as contributes to Program Goals A and B).
2. identify, analyze, and resolve game design problems using industry-established game design and gameplay concepts (embodies Institute Program Outcomes 1 and 3 as well as contributes to Program Goals A, C, and D).
3. integrate game design and technology concepts in the practice of game creation (embodies Institute Outcomes 1, 4, and 5 as well as contributes to Program Goals A, B, and D).
4. identify and solve production pipeline issues related to the game design and development process (embodies Institute Program Outcome 1 as well as contributes to Program Goals B and D).
5. apply current technology in a media-centric context (embodies Institute Program Outcomes 1 and 5 as well as contributes to Program Goals B and D).
6. identify, critique, and apply knowledge of media theory, mediated communication, and aesthetics towards the construction of media-centric applications (embodies Institute Program Outcomes 1, 2, and 3 as well as contributes to Program Goals C and D).
7. identify critical legal and ethical challenges in the design and production of games (embodies Institute Program Outcome 3 and contributes to Program Goal C).
8. effectively communicate technical and design concepts through writing, speech, and formal presentation (embodies Institute Program Outcome 1 as well as contributes to Program Goals C and D).
9. effectively participate and contribute to multidisciplinary design and development teams (embodies Institute Program Outcomes 2 and 5 as well as contributes to Program Goal D).