University of the Incarnate Word
School of Media & Design
ANGD 3372
Game Programming IV
Syllabus

Catalog Description: This studio course builds on the topics covered in Game Programming I, II, and III. Students will implement more advanced game features and systems, experiment with newly-emerging technologies, such as augmented reality (AR) and virtual reality (VR), and delve into end-of-development tooling and polish. It is the final part of a series of courses designed to train practical skills that will help prepare students prepare to develop games professionally.

Context:
Prerequisites: ANGD 3371.
This is a Junior level course required of ANGD BFA majors in the *Programming* Concentration.
This course may not be repeated for credit.
This course will be offered in a face-to-face format.
Grade Mode: Normal

Course Overview: In this course, the skills gained in previous courses are leveraged to begin creating more fully-featured games, with enough polish to support a wider release. Networking knowledge from the previous courses is expanded to include synchronous networked gameplay implementations. Students will begin to experiment with creating less conventional gameplay experiences via mixed-reality, on both desktop and mobile platforms, and discover the limitations and possibilities of each. With a focus on best practices for working within the context of a larger studio creating games, students will also gain experience with the end-stages of a game project's development, including working with and developing tooling for performance optimization, content delivery, and internationalization.

Course Outcomes: Upon completion of the course, students will be able to:	**Assessment:** The objectives will be assessed by:
Create a game that implements synchronous networked gameplay, running over LAN or the internet.	Projects (Repository-submitted projects and in-class playable game builds.)
Create projects that work with mixed-reality hardware (VR headsets, AR on mobile devices), or other emerging technologies, to create new gameplay experiences.	Projects (Repository-submitted projects and in-class playable game builds.)
Leverage automated deployment processes to speed development and testing, such as TestFlight, Unity Cloud Build, etc., depending on chosen game engine / framework / target platform.	Projects (Repository-submitted projects and in-class playable game builds.)
Create and manage performance profiling tools to diagnose and resolve technical issues, and prepare their projects into a 'release-ready' state.	Projects (Repository-submitted projects and in-class playable game builds.)
Create and manage content delivery and internationalization systems and tools, which could be used to deliver a game that is fully translated to one or more languages.	Projects (Repository-submitted projects and in-class playable game builds.).)

This course complies with all UIW academic policies and federal guidelines, including but not limited to: academic integrity, disability accommodations, pregnancy accommodations, Title IX non-discrimination, and class absences for religious observances. Current policy statements will be provided to all students through the learning management system and in information provided on the first day of class.