Courses for all first year MS GDD Students

Core Courses

You will be automatically signed up for all core (required) MS courses that first year students take in their fall semester at the end of July. These courses are the following and will account for seven of the nine credits required for full time status as a graduate student:

IGME 601 Game Development Processes: This course examines the individual and group roles of the development process model within the game design and development industry. Students will transform design document specifications into software and hardware needs for developers, testers, and end users. Students will examine team dynamics and processes for technical development, content development, testing, deployment, and maintenance. Students will explore the design process through the deconstruction of the game industry's software lifecycle model.

IGME 602 Game Design: This course presents students with core theories of game design, informed by research results from media theory, narrative methods and models, theories of ideation, and the nature of games, play and fun. Specific emphasis is placed on the examination of historical successes and failures, along with presentation of ethical and cultural issues related to the design of interactive software. Students will engage in formal critique and analysis of media designs and their formal elements.

IGME 695 Colloquium in Game Design and Development: This required colloquium will introduce students to a range of emerging topics and themes in the field of game design and development. Students will attend lectures by and discussions with RIT faculty and visitors, complete related readings, and offer both oral and written responses to readings and presentations.

Electives

Students will be signed up for their first year elective after filling out an online survey to be done by JULY 2nd. Please look for an email with the survey link.

IGME 622 – Game Balance: This course is an in-depth exploration of the sub-field of game design known as balance. Topics include: transitive mechanics and cost/power curves; economic systems in games; probability and the psychology of randomness; pseudorandom numbers; situational balance; level/XP curves, advancement and pacing; tuning; statistics, metrics, and analytics; intransitive mechanics, game theory, and payoff matrices; and the applied use of spreadsheets.

IGME 670 – Digital Audio Production: Technologies and techniques for producing and manipulating digital audio are explored. Topics include digital representations of sound, digital audio recording and production, MIDI, synthesis techniques, real-time performance issues, and the application of digital audio to multimedia and Web production.

IGME 760 – AI for Gameplay: This course explores artificial intelligence concepts and research through both a theoretical perspective and a practical application to game development. In particular the course focuses on AI concepts and paradigms such as search and representation, reasoning under uncertainty, intelligent agents, biologically inspired computing and machine learning to real-time situations and applications as relevant to the field of entertainment technology and simulation.

IGME 796 Topics in Game Design (Level Design): This course introduces level design theory and construction. Students will learn by exploring levels from various genres. They will analyze and contrast each genre, and explore differences between single and multiplayer levels. Students will learn various aspects of level design theory, including how to use landmarks, verticality, how to make the game world feel expansive, quest design, and how to guide the player through a level. They will enhance their understanding of level design principles by creating their own game levels. Students will also research specific level design elements that interest them, and present their in depth findings to the class.