Game Design Minor (GAMED-MN)

RIT’s School of Interactive Games & Media’s undergraduate Minor in Game Design consists of five courses, which total 17 credits. This minor is available to non-computing majors to explore the process and principles of game design. The minor also provides an introductory experience to media-centric software development such that students can prototype and test their designs. This minor provides a broadening academic experience to students outside the technological majors that are normally associated with computing. Students majoring in Kate Gleason College of Engineering’s computer engineering major or any major in the B. Thomas Golisano College of Computing and Information Science cannot enroll in this minor.

IGME-119 2D Animation & Asset Production (quarter “equivalents”: 4080-346 and 4080-347)
This course provides a theoretical framework covering the principles of animation and its use in game design to affect user experience. Emphasis will be placed upon principles that support character development and animations that show cause and effect. Students will apply these principles to create animations that reflect movement and character appropriate for different uses and environments. *(IGME-110 waived for minor only)*

IGME-101 New Media Interactive Design and Algorithmic Problem Solving I (quarter “equivalent”: 4080-230)
This course provides students with an introduction to problem solving, abstraction, and algorithmic thinking that is relevant across the field of new media. Students are introduced to object-oriented design methodologies through the creation of event-driven, media-intensive applications. Students will explore the development of software through the use of a range of algorithmic concepts related to the creation of applications by writing classes that employ the fundamental structures of computing, such as conditionals, loops, variables, data types, functions, and parameters. There is an early emphasis on object oriented concepts and design. *(None)*

IGME-102 New Media Interactive Design and Algorithmic Problem Solving II (quarter “equivalent”: 4080-231)
This course provides students a continued introduction to problem solving, abstraction, and algorithmic thinking that is relevant across the field of new media. As the second course in programming for New Media students, this course continues an object-oriented approach to programming for creative practice. Topics will include reusability, data structures, rich media types, event-driven programming, loaders, XML, object design and inheritance. Emphasis is placed on the development of problem-solving skills as students develop moderately complex applications. *(IGME-101)*

IGME-220 Game Design & Development I (quarter “equivalent”: 4080-380)
This course examines the core process of game design, from ideation and structured brainstorming in an entertainment technology context through the examination of industry standard processes and techniques for documenting and managing the design process. This course specifically examines techniques for assessing and quantifying the validity of a given design, for managing innovation and creativity in a game development-specific context, and for world and character design. Specific emphasis is placed on both the examination and deconstruction of historical successes and failures, along with presentation of ethical and cultural issues related to the design and development of interactive software and the role of individuals in a team-oriented design methodology. Students in this class are expected to actively participate and engage in the culture of design and critique as it relates to the field. *(IGME-102. IGME-202 waived for minor only)*

IGME-320 Game Design & Development II (quarter “equivalent”: 4080-381)
This course continues to examine the core theories of game design as they relate to the professional field. Beginning with a formalized pitch process, this course examines the design and development paradigm from storyboarding and pre-visualization through rapid iteration, refinement, and structured prototyping exercises to further examine the validity of a given design. Specific emphasis is placed on iterative prototyping models, and on methodologies for both informal and formal critique. This course also explores production techniques and lifecycle in the professional industry. *(IGME-220)*

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Additional requirements and considerations:

- Prerequisites apply between these courses, but there are no pre-requisites required to start the sequence. General familiarity with computing is assumed.
- You may begin the minor with either of the following courses: IGME-119 3D Animation & Asset Production or IGME-101 New Media Interactive Design and Algorithmic Problem Solving I. When possible, you should begin with IGME-101 New Media Interactive Design and Algorithmic Problem Solving I.
- A 3.0 cumulative GPA is expected and required to be enrolled in the minor.
- Students may not enroll in or begin this minor prior to the end of their second year/beginning of their third year of study.
- If the above requirements are met, students will be enrolled in minor courses as space/resources permit. The courses required for the minor are also required for students in the Game Design & Development undergraduate major, and students in the major must have first priority.
- Students enrolled in the minor cannot enroll themselves in minor courses. Instead, you will be asked to submit your course requests to the minor advisor (below) on a per-term basis prior to the enrollment period. You will receive an email from the minor advisor each semester prompting you to do submit your course requests.

Questions?
If you have any questions about the Minor in Game Design, please contact the minor advisor, Kathleen Schreier Rudgers at kmsrla@rit.edu.

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