

**ACCELERATED PROFESSIONAL PROGRAM
SATURDAYS AT THE NORTH CAMPUS
MULTIMEDIA GAME SIMULATION CERTIFICATE
PROGRAM (109)**

- This is a great opportunity to expand and upgrade your credentials and enhance employment opportunities.
- There are 8 courses in this program.
- Each course is 8 weeks.
- It is suggested that the courses be taken in sequence.
- CIT-125 (Web Development) is a co-requisite to MMC 111 and MMC 160.

This certificate program is designed to provide opportunities to learn about the game design and simulation practices. Additionally, students are exposed to industry standard hardware, software and development pipelines. Beginning with frameworks and project practices, then moving into design and practicing with the software, this certificate provides an intense yet quick option to help students prepare for the industry. Skills developed through this certification are applicable to industry needs for game design, testing and simulations.

This certificate is an excellent opportunity for working professionals who are considering the gamification of their projects and training and are not aware of the options available or the process to begin the training. Students who are focusing on other disciplines and wish to add the use of video games and simulation to their skills for cross disciplinary design are also well served by the certificate.

Furthermore, students who complete the certification can continue into the CIT-Multimedia Programming, Simulation Gaming (108) to earn an Associate of Science degree. The certificate also serves to prepare students to continue into a four-year institution to continue their education to a Bachelor's level.

CERTIFICATE REQUIREMENTS

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SPRING 2019:			
MMC-150-NC35H	Prg With Javascript, jquery/Actionscript	3 credits	1/19/19 - 3/9/19
MMC-160-NC35H	Game Design & Simulation 1	3 credits	3/16/19 – 5/11/19
SUMMER 2019:			
MMC-111-NC35H	Developing Images for the Web	3 credits	5/18/19 – 7/6/19
MMC-260-NC35H	Maya for Gaming 1	3 credits	7/13/19 – 8/31/19
FALL 2019:			
MMC-112-NC35H	Audio & Video for the Web	3 credits	9/7/19 – 10/26/19
MMC-228-NC35H	Instructional Design	3 credits	11/2/19 – 12/14/19
SPRING 2020:			
MMC-250-NC35H	Three-Dimensional Design for Gaming	3 credits	1/18/20 – 3/7/20
MMC-270-NC35H	Maya for Gaming 2	3 credits	3/14/20 – 5/9/20

**FOR MORE INFORMATION, CALL OR VISIT THE CCAC NORTH CAMPUS
ADVISING OFFICE, 412-369-3740, ROOM 1004A**

MULTIMEDIA GAME SIMULATION CERTIFICATE PROGRAM (109)

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Upon successful completion of the program, the graduate will:

1. Apply 2D and 3D animation concepts to create simulation and animation.
2. Utilize programming skills to create simulation and animation.
3. Create a game and simulation from concept to completion.
4. Utilize Maya, Blender and Action Script in simulation and game programming.
5. Communicate effectively and appropriately with team members and players in the development of games and simulation.

Course Descriptions:

MMC 111 Developing Images for the Web 3 credits **(Co-requisite CIT 125)**

This course is an enhancement of the Web development course with focus on graphic images used in websites. Students will create and enhance digital images using appropriate software for translating site goals into compelling Web design. Topics include JavaScript, Photoshop, Dreamweaver, combining images, adjusting image sizes, non-destructive editing, preparing images for Web and video, adding text, using layers and creating effects using filters.

MMC 150 Programming with Javascript, JQuery/Actionscript 3 credits

This course introduces students to web application programming with JavaScript and JQuery library. Students create, test and debug scripts that include object methods and properties, data types, data selections and repetition structures, as well as window, form, frame and document objects.

MMC 160 Game Design & Simulation 1 3 credits **(Prerequisite: Eligibility ENG 100; Co-requisite CIT 125)**

This course will introduce the concepts and system of game design, including character, aesthetics, story, technology, structured conflict, resolution and outcome. Students will work in teams to brainstorm and prototype a game concept utilizing the gaming software GameMaker.

MMC 260 Maya for Gaming 1**3 credits**

In this course, students will learn about the Maya user interface, including working with lighting, shading and polygon modeling. Additionally, students will work with the UV Texture Editor and apply Photoshop to the Maya software.

MMC 112 Audio & Video for the Web**3 credits**

Using HTML5, CSS and JavaScript, students will learn as they build increasingly comprehensive media players and solutions. By learning about the underlying technology, students will recognize and utilize the full potential of media tools and time-saving strategies. Students will create cross-browser HTML5 based audio and video solutions.

MMC 228 Instructional Design**3 credits**

This course will teach students to apply the various techniques and elements of multimedia production into presentation formats. Students will demonstrate effective computer-based training and web-based training through project development.

MMC 250 Three-Dimensional Design for Gaming**3 credits**

In this course, students will create three-dimensional (3D) objects and complex 3D models for animation. Students will utilize gaming software including Blender and Multimedia Fusion in their 3D designs.

MMC 270 Maya for Gaming 2**3 credits**

This course will cover additional techniques in modeling, materials, lighting, animating and rendering utilizing Maya. Students will learn the process of completing an entire 3D animation team project and learn the techniques of creating photorealistic renderings.