

INTERACTIVE DSGN/GAME DEVELOP (ITGM)

ITGM 522 Programming for Designers (5 Credits)

Students learn basic programming concepts that can be applied to the development of interactive applications. The course begins with a procedural approach, which leads to object-oriented programming techniques. Students apply computation-thinking and problem-solving techniques to design well-structured and commented code. Students also explore open-source programming resources and communities.

Attributes: Studio Elective Requirement

ITGM 705 Interactive and Game Design: Research and Practice (5 Credits)

The investigation and application of appropriate research methodologies and theoretical frameworks is central to art and design. With a focus on the scientific method, students formulate research questions, deconstruct applied concepts, and validate hypothetical solutions to establish the foundation of a professional interactive and game design practice.

ITGM 708 Effective Design Communication (5 Credits)

Every professional design and game studio expects exceptional communication skills from its talented designers. In this course, students learn how to effectively present their ideas and generate supportive content for pitch delivery. As part of future executive and leadership training, student designers learn to craft their delivery of formal presentations to achieve desired results. From gathering informational data to organizing visuals and infographics, students perfect the art and design of pitch delivery for a variety of formal and informal contexts, from client pitches to thesis presentations to professional conferences.

Attributes: Studio Elective Requirement

ITGM 719 Scripting for Interactivity (5 Credits)

With an emphasis on scripting interactivity, students develop applications and projects that include games and interactive applications. This course explores implementation skills for digital applications centered on object-oriented programming techniques. Students use logic and problem solving to design sound coding structures that enhance interactive digital interfaces.

Attributes: Studio Elective Requirement

ITGM 733 Digital Sculpting for Video Games (5 Credits)

This course explores the creation of complex models and textures for use in video game development. Students are introduced to current theory, functional aesthetics and advanced techniques relevant to digital sculpture.

Prerequisite(s): ANIM 709 or (ITGM 710 or GAME 730).

Attributes: Studio Elective Requirement

ITGM 746 Digital Sculpting Pipelines and Practices (5 Credits)

Digital sculpting has brought new depths to the world of game development, animation, visual effects, and action figure modelling. Utilizing the professional production pipeline for game creation, students focus on the step-by-step process of translating 2D concepts into 3D sculpts for the creation of realistic characters. Students enhance their technical and digital sculpting skills for the optimization of real-time animated productions.

Prerequisite(s): ITGM 733.

Attributes: Studio Elective Requirement

ITGM 748 Interactive Design and Game Development M.A. Final Project (5 Credits)

As the culminating experience for interactive design and game development graduate students, the M.A. final project embodies the synthesis and skillful application of discipline knowledge and techniques covered throughout the program. Addressing individual professional goals, and reflecting technical mastery of chosen specialties, each student in this course completes an industry-level project from research to conceptualization to implementation.

Prerequisite(s): (IXDS 720; GAME 722 or ITGM 723) and minimum score of 5 in 'Graduate Prerequisite Test'.

Attributes: Studio Elective Requirement

ITGM 749 ITGM Portfolio and Business Practices (5 Credits)

Students focus on the integration of imagery, websites, video and various other elements into an interactive portfolio. Concepts, cross-platform developments and issues concerning aesthetics, interface design and use of media are addressed. Students collect relevant material and produce a CD/DVD/Web-based portfolio, packaging for portfolio, résumé, cover letter, business cards and flat book portfolio.

Prerequisite(s): (GAME 720 or ITGM 721) or (IXDS 720 or ITGM 723).

Attributes: Studio Elective Requirement

ITGM 755 Thesis Studio I: Research and Ideation (5 Credits)

Every thesis starts with a well-constructed problem statement. In this course, students translate a well-defined personal vision and area of interest into a cohesive and focused thesis topic. Students investigate multiple approaches and methodologies for constructing their problem statement, and engage in critical review of relevant academic and professional perspectives to inform the direction of their thesis.

Prerequisite(s): ITGM 705.

Attributes: Studio Elective Requirement

ITGM 765 Thesis Studio II: Production and Prototyping (5 Credits)

With a strong emphasis on critique and process, students begin to develop and prototype the visual component of their graduate thesis. Grounded in a strong thesis direction and supported by a solid theoretical framework, students initiate and document their production process.

Prerequisite(s): ITGM 755 and minimum score of 6 in 'Graduate Prerequisite Test'.

Attributes: Studio Elective Requirement

ITGM 775 Evidence-based Design Interactivity and Gaming (5 Credits)

Evidence-based design uses objective assessments to provide empirical justification that validates design questions and claims. Through iterative user testing and various validation methodologies, students provide supportive data for their thesis and other previously prototyped design projects. Conclusive visualized data are amalgamated to enhance understanding and strengthen professional documentation and presentations.

Prerequisite(s): GAME 720; ITGM 721; IXDS 720; ITGM 723 or ITGM 765 and minimum score of 6 in 'Graduate Prerequisite Test'.

Attributes: Studio Elective Requirement

ITGM 779F Graduate Field Internship (5 Credits)

Students in this course undertake a field assignment under the supervision of a faculty member.

ITGM 779T Graduate Teaching Internship (5 Credits)

Students in this course undertake a teaching assignment under the supervision of a faculty member.

ITGM 790 Thesis Studio III: Validation and Documentation (5 Credits)

As culmination of their graduate experience, students execute a thesis that demonstrates a mature, resolved body of work and advanced professional competence through mastery of the technical, creative, and aesthetic elements of the discipline. Students synthesize research from various sources with their own creative ideas, technical skills, aesthetic sensibility, and mastery of design principles to make an original contribution to the field of game art or interactive design.

Prerequisite(s): ITGM 755; ITGM 765 and minimum score of 6 in 'Graduate Prerequisite Test'.