

New! Creative Industries MINOR

Undergraduate students who want to declare a Creative Industries minor must complete School of Journalism and Creative Industries requirements and meet all prerequisites for School of Journalism and Creative Industries courses. Students must complete 24 credit hours (six, four credit courses) to successfully meet the requirements for the minor. Below are the six required courses for the Creative Industries minor that most students will take. If students have taken Math 1260, then they can study programming and then study web design as substitutes for one or two of the last three courses in the regular suite. Students can take additional Creative Industries courses as part of their electives outside the School of Journalism. For more information about the Creative Industries minor call Prof. Terrance Masson at 617.373.7645 or send an email to t.masson@neu.edu.

JOURNALISM REQUIREMENTS

JRNL3525 Online Journalism

Provides students with the opportunity to learn new media skills including Web site production, online packaging of news content, and digital photography. Analyzes the history, ethics, law, economics, and future of online journalism. Includes an in-depth look at Weblogs, traditional news Web sites, and alternative Webzines. *Prereq. JRNL 2201.*

4.000 Credit Hours

JRNL 5340 Reinventing the News: The Journalism of the Web

Examines how technology and a changing media culture are revolutionizing the news business. Newspapers transform themselves into online information centers. Mobile “backpack journalists” upload text, photos, audio, and video to the Web. Databases and maps “mash up” into new forms of journalism. News morphs into a conversation between professional journalists and what some call “the former audience.” And citizen journalists challenge the mainstream media on their own turf. Considers how blogging and other forms of Web journalism are affecting what the traditional media choose to cover and how they present it. Offers an opportunity to meet leading experts and consider what career opportunities are likely to emerge for the next generation of journalists. *Prereq. (a) JRNL 2201 and junior or senior standing or (b) graduate standing.*

4.000 Credit Hours

CREATIVE INDUSTRIES REQUIREMENTS

IM1110 Interactive Media and Society

Offers a critical historical survey of interactive media from analog to digital techniques and from physical to virtual spaces. Examines the social, ethical and cultural impact of interactive media. Concludes with a study of current issues and directions in interactive media. Through weekly lectures, research projects and critical analyses, students consider current and historical aspects of interactive media and design.

4.000 Credit Hours

IM2100 Digital Narrative 1

Explores narrative sequence and story development in a variety of story architectures and media combinations, including text, video, music, audio and design. Through lectures, in-class workshops and collaborative projects, students experience the critical role of narrative in society and interactive media including games. Students will develop an interactive media design document over the second half of the semester.

4.000 Credit Hours

IM2200 Digital Narrative 2

Continues the study of narrative structures, with emphasis on analysis and development of interactive and experimental new media applications. Students explore narrative issues in immersive multimedia and gaming including dynamic characters and multi-user environments. Students will work in teams to develop narrative continuity across multiple media, including alternate-reality games and other forms of multimedia experiences.

Prerequisite: IM 2100

4.000 Credit Hours

IM2300 Managing Media Development

Provides both a broad context and specific examples highlighting issues of project management and business law relevant to design and production of digital media assets. Introduces students to the issues of managing the development of a creative and collaborative enterprise. Through research and analysis students explore social, legal and cultural impact of creative sector interactions.

4.000 Credit Hours

Additional Creative Industries Courses

IM 2250 Programming for Digital Media

Exposes students to basic programming design for user interfaces and develops a basis for familiarity with the logical elements of programming languages. Through lectures, hands-on in-class exercises and modular projects, explores web-based design and programming solutions for managing interaction and animation.

Prerequisite: MATH 1260.

4.000 Credit Hours

IM 2400 Web Design and Development

Applies information design principles to web design. Explores user-centered interface and programming design strategies for the delivery of responsive data-driven websites. Discusses audience definition, content development, information structuring, and navigation. Tools and strategies for design such as site maps, wireframes, prototypes, usability testing, and iterative development are emphasized. Meaningful interactive experiences are developed through team-based projects. *Fulfills Mathematical/Analytical Thinking Level 2 Core for Interactive Media dual majors.*

Prerequisite: IM 2250. Co-requisite: IM 2401.

Recommended background: ARTF 2223 (required for dual majors).

4.000 Credit Hours

IM 2401 Web Development Tools (1SH)

Introduces skills and software used in designing and developing Web-based interactive environments. Web-page scripting and tagging, CSS-based design coding, options for front and back end page design connections, and alternative technologies are explored in this workshop.

Co-requisite: IM 2400.

1 Credit Hour

IM 3200 Interactive Sound Development

Students analyze use of sound in past and present film, videogames, and interactive media spaces, from an historic and cultural perspective. Through individual and collaborative assignments, students learn how sound can be developed and used to communicate effectively and enhance experiences in interactive digital media environments.

Prerequisite: IM 1110 or GAME 1110.

4.000 Credit Hours

IM 3250 Physical Computing

Explores the communication between the physical world and the interactive, computer-based interface. Examines the potential of reactive analog and digital devices embedded within the physical realm. Projects using simple kit sensors and indicators will permit student teams to create interfaces triggered by gesture, bodily movement, physical forces, and other tangible actions. Concludes with discussions of more complex interactive devices, the relationship between physical computing and robotics, and possible future directions.

Prerequisite: IM 2400.

4.000 Credit Hours

IM 3500 Cross Media Marketing and Communication

Examines how marketing, advertising and media strategies developed across multiple media inform design and communication strategy. Topics will include advertising narratives, brand development and management, and translation of branding across multiple media.

Prerequisite: IM 1110.

4.000 Credit Hours

IM 3600 Market Analysis for the Creative Industries

Expands on topics from Managing Media Development. Through lectures, students will gain an understanding of the current state of creative industries markets. Through various research methodologies, students will understand user behaviors and needs, analyze market opportunities, recognize trends, and understand market segments. Working in small groups, students will develop user cases for interactive project development and user testing based on market research information.

Prerequisite: IM 2300.

4.000 Credit Hours

IM 3700 Interfaces for Mobile and Tactile Environments

Explores user-centered interface and programming design for information exchanges using handheld and mobile devices. For comparison, discusses interfaces for larger tactile devices such as pen-based tablets and interactive table or wall displays. The potentials for leveraging both the social and locative possibilities of mobile and tactile devices will be studied through research, discussions, and project assignments.

Prerequisite: IM 2400.

4.000 Credit Hours

IM 4000 Interactive Media Topics

Offers a lecture or studio course in interactive media on a topic not regularly taught in a formal course. Topics may vary from offering to offering.

4.000 Credit Hours

IM 4700 Interactive Media Capstone 1

In this two term capstone class sequence, students work in interdisciplinary teams to define, research, design, plan and implement a large scale interactive project. The project concept and preliminary work is completed in this course and the final project is produced in the subsequent capstone course. *Fulfills Experiential Education requirement for Interactive Media dual majors.*

Prerequisites: IM2100, IM 2400.

4.000 Credit Hours

IM 4701 Interactive Media Capstone 2

Continuation of IM 4700. Realizes the interactive project that was planned and designed in IM 4700. *Fulfills Capstone requirement for Interactive Media dual majors.*

Prerequisite: IM 4700.

4.000 Credit Hours

Game Design Courses

GAME 1110 Games and Society

Provides an historical and cultural perspective on games and other forms of interactive entertainment. Examines the present state and future directions of paper, card and board games, physical games and sports, and video games. Introduces students to current issues, experiments and directions in the field of game design. Through weekly lectures and small-group labs, students develop a critical basis for analyzing game play.

Co-requisite: GAM U1111.

4.000 Credit Hours

GAME 1111 Lab for GAM 1110

Co-requisite: GAM U1110.

1 Credit Hour

GAME 2150 Programming for Games

Students will build computer game components and small complete games that explore physical principles in games, artificial intelligence, collision detection, and particle systems while gaining familiarity with common game engine libraries.

Prerequisites: MATH 1260, CS 2500.

4.000 Credit Hours

GAME 3150 Game Design Algorithms

Extends student knowledge of common algorithms used in game design. Students explore issues of cross-platform coding, mid-scale games, networked games, dynamic content systems, and working in a team-based coding environment. Working in small groups, students will develop and optimize a multiplayer game over the course of the semester.

Prerequisites: GAME 2150.

4.000 Credit Hours

GAM 3250 Artificial Intelligence for Games

Extends student knowledge of artificial intelligence techniques used in game design. Students explore finite state machines, goal-driven agent behavior, graphs, in-game scripting, path finding, and fuzzy logic. Students will work in pairs to develop intelligent agents to navigate a variety of game scenarios. Student projects will be combined competitively and collaboratively to test the robustness of the artificial intelligence solutions.

Prerequisite: GAME 2150.

4.000 Credit Hours

GAME 3300 Game Interface Design

Students will analyze both successful and unsuccessful game interfaces from an historic and cultural perspective. Through interactive design assignments, students will develop an understanding of game user interface design standards. Students will also be encouraged to develop innovative interface designs that support new game content models.

Prerequisite: GAME 1110

4.000 Credit Hours

GAME 3400 Level Design & Game Architecture

Students will analyze game level designs in a variety of genres and forms. Building upon basic drawing and design skills, students will develop paper prototypes and simple game “mods” in the context of story and game play. Students will also use computer-based tools to examine game level architecture. Students are encouraged to take this elective in preparation for or in parallel to the *Game Projects* courses.

Prerequisite: GAME 1110.

Recommended background: ARTF 1122, ARTF 1124 (required for dual majors).

4.000 Credit Hours

GAME 3500 Animation for Games

Explores all areas of 3d game asset creation: animation, modeling, shading, effects, and their integration. Working in small groups, students will learn how to construct animated assets that work efficiently within a game programming environment. Students will be encouraged to specialize in at least one area of asset creation.

Prerequisites: GAME 2150, ARTD 4570.

4.000 Credit Hours

GAME 3700 Game Projects: Pre-Production

Through weekly writing, sketching, and peer critiques, students develop an understanding of game project planning techniques. Students work on small teams to produce a comprehensive game design document, project timeline, and engineering specification during the course of the semester.

Prerequisites: GAME 1110, GAME 2150.

4.000 Credit Hours

GAME 3800 Game Projects: Assets & Prototyping

Continues the game development process from *Game Projects: Pre-Production*. Student teams take their work from *GAM 3700* and implement a vertical slice of the complete game, developing content, level design, user interface, and game mechanics as specified in their pre-production documents. At the end of the semester, student teams will each present a complete game prototype for play-testing and critique.

Prerequisite: GAME 3700.

4.000 Credit Hours

GAME 4000 Game Design Topics

Offers a lecture or studio course in game design on a topic not regularly taught in a formal course. Topics may vary from offering to offering.

4.000 Credit Hours

GAME 4700 Game Design Capstone 1

In this two-semester capstone class sequence, students take on individual roles in a large-group project, creating a complete game from pre-production through implementation and testing. Students spend the first half of the first semester developing a proposal and testing ideas through simple prototypes, building on their skills from the *Game Projects* courses. Students spend the second half of the first semester, and all of the second semester, developing, play-testing, and iteratively refining a multi-level game. *Fulfills Experiential Education requirement for Game Design dual majors.*

Prerequisite: GAME 3800.

4.000 Credit Hours

GAME 4701 Game Design Capstone 2

Continuation of GAME 4700. Realizes the interactive game that was planned and designed in GAME 4700. *Fulfills Capstone requirement for Game Design dual majors.*

4.000 Credit Hours

Requested course from Mathematics

MATH 1260 Math Fundamentals for Games

Discusses linear algebra and vector geometry in 2-, 3-, and 4-dimensional space. Examines length, dot product, and trigonometry. Introduces linear and affine transformations. Discusses complex numbers in 2-space, cross product in 3-space, and quaternions in 4-space. Provides explicit formulas for rotations in 3-space. Examines functions of one argument and treats exponentials and logarithms. Describes parametric curves in space. Discusses binomials, discrete probability, Bézier curves, and random numbers. Concludes with the concept of the derivative, the rules for computing derivatives, and the notion of a differential equation.

4.000 Credit Hours