PennDesign

Office of Admissions
110 Meyerson Hall
Philadelphia, PA 19104-6311

TIME BASED AND INTERACTIVE MEDIA CERTIFICATE PROGRAM

The Time Based and Interactive Media Certificate Program is suited for graduate students and professionals who wish to develop skills with the moving image, digital technology and interactivity. The curriculum will enable applicants to engage in new technologies and skills that could be incorporated into their practice, or extend their knowledge to improve their career opportunities.

The program track requires 5 CU's (course units), including required courses, electives and one graduate seminar, to be completed within six semesters to earn the certificate. All applicants must have a baccalaureate degree to be considered for admission. Applications for spring admission are due on November 1 and for fall admission on January 14. An application and interview are required. Applicants who are not enrolled in PennDesign graduate programs must submit portfolios containing slides, digital images, printed images, books, video, or interactive projects. Digital and video portfolios should follow the guidelines for the MFA portfolios. Video should be limited to excerpts which total less than 10 minutes. All interactive and time-based projects should include synopses or guides for interaction. Web sites and interactive projects must include a list of technical requirements. Portfolios will be returned only if a properly stamped and return-addressed envelope is included. While taking all reasonable care, the school cannot be held responsible for any damage to the work or portfolio.

CONTACT

Inquiries relating to admission should be directed to:
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Prospective applicants wishing to contact the Department of Fine Arts directly, may contact:
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TIME BASED AND INTERACTIVE MEDIA CERTIFICATE PROGRAM CURRICULUM

Required Course

FNAR 669 Graduate Video Studio

Recommended Elective Courses

FNAR 535 Web Design II
FNAR 536 Digital Figure Modeling
FNAR 541 Hand-Drawn Computer Animation
FNAR 567 Computer Animation
FNAR 589 Mixed Media Animation
FNAR 594 Graduate Photography Seminar
FNAR 634 Web Design I
FNAR 635 3-D Computer Modeling/Dig. Sculpture
FNAR 636 Art, Design and Digital Culture
FNAR 640 Digital Photography
FNAR 653 Advanced Projects: Animation
FNAR 661 Film/Video I
FNAR 662 Film/Video II
FNAR 663 Documentary Video
FNAR 664 Interactive Video
FNAR 667 Advanced Video Projects
FNAR 668 Cinematography
FNAR 671 Film Sound
FNAR 675 Image and Sound Editing
FNAR 678 Interfacing Cultures
ARCH 741 Architectural Design Innovation
ARCH 743 Form and Algorithm
ARCH 744 Digital Fabrication
ARCH 745 Nonlinear Systems Biology & Design

Approval of Electives and Recommended Sequence

The selection and sequence of the elective courses must be approved by the Director of the Time-Based and Interactive Media Certificate program.

COURSE DESCRIPTIONS

REQUIRED COURSE

FNAR–669. Graduate Video Studio
Through a series of studio projects, this course will focus on the conceptualization and production of time-based media works. The course will cover techniques including lighting, cinematography, audio, editing, mastering projects, and installing audio-visual works in site-specific locations or gallery spaces.

ELECTIVES

FNAR 535 Web Design II
prerequisite: FNAR 634
This course will explore the design processes and techniques for creating an effective interactive experience. Students will apply both analytical and creative thinking at different points in the semester. This class will be a furtherance in learning to think and work as a designer. Students will begin to discern between everyday visual clutter and strongly developed design rooted in conceptual, aesthetic and technical achievement. Students will learn to distinguish the good from the bad and know the difference between design and decoration. We will explore how animation and sound can enhance the content and tell a story in a compelling way. The class will use Adobe Flash and Adobe Dreamweaver (HTML and CSS) programming.

FNAR 536 Digital Figure Modeling
prerequisite: FNAR 635
This course introduces methods of modeling, texturing, and rendering human and animal figures. Students will study anatomical bone and muscle structures, and then employ this knowledge as they develop polygonal models for real-time 3D simulations or gaming environments, high-resolution renderings, and rapid prototyping.

FNAR 541 Hand-Drawn Computer Animation
Using software tools designed for hand-drawn animation, students will develop animation skills applicable to all forms of animation. In this course students will learn to draw with a sense of urgency and purposefulness as they represent motion and drama in a series of frames. Through careful study of natural movements, precedents in the history of animation, and through the completion of a series of animation projects students will develop strategies for representing naturalistic movement, inventing meaningful transformations of form, and storytelling.

FNAR 567 Computer Animation
Through a series of studio projects this course introduces techniques of 2D and 3D computer animation. Emphasis is placed on time-based design and storytelling through animation performance and montage. Students will develop new sensitivities to movement, composition, cinematography, editing, sound, color and lighting.

FNAR 589 Mixed Media Animation
Mixed Media Animation is a contemporary survey of stop-motion animation concepts and techniques. Students use digital SLR cameras, scanners and digital compositing software to produce works in hand-drawn animation, puppet and clay animation, sand animation, and multiplane collage animation. Screenings and discussions in the course introduce key historical examples of animation demonstrating how these techniques have been used in meaningful ways. Students then learn how to composite two or more of these methods with matte painting, computer animation or video.

FNAR 594 Graduate Photography Seminar
This seminar will examine contemporary issues in photography from the point of view of the practicing artist. Students will meet with visiting critics during the semester, the course will also include student presentations, weekly discussions and group critiques, visits to artists' studios and gallery and museum exhibitions. Texts for the seminar will be drawn from contemporary critical theory in art, philosophy, history and popular culture. Required for all graduate photographers.

FNAR 634 Web Design I

Web Design I is a course designed to introduce the student to web presentation, theory, techniques and current software applications. Instruction will include usability, graphic design, web terminology, appropriate file protocoling, information architecture planning, communication strategies and www identity design. Upon completion of this course, students will possess a working knowledge of how to organize and design full web page content for interactive online user interfacing or control-group presentation.

FNAR 635 3-D Computer Modeling/Dig. Sculpture

prerequisite: FNAR 579

Students will develop a comprehensive knowledge of how virtual worlds are constructed using contemporary computer graphics technique with a fine arts perspective. The course will offer the opportunity to explore the construction, texturing, and rendering of forms, environments, and mechanisms while conforming to modeling specifications required for animation, real-time simulations or gaming environments, and rapid prototyping.

FNAR 636 Art, Design and Digital Culture

This course is an introduction to the fundamental perception, representation, aesthetics, and design that shape today's visual culture. It addresses the way artists and designers create images; design with analog and digital tools; communicate, exchange, and express meaning over broad range of media; and find their voices within the fabric of contemporary art, design, and visual culture. Emphasis is placed on building an extended form of visual literacy by studying and making images using a variety of representation techniques; learning to organize and structure two-dimensional and three-dimensional space, and designing with time-based and procedural media. Students learn to develop an individual style of idea-generation, experimentation, iteration, and critique as part of their creative and critical responses to visual culture.

FNAR 640 Digital Photography

This class offers an in-depth technical and conceptual foundation in digital imagery and the opportunity to explore the creative, expressive possibilities of photography. Students will become proficient with the basic use of the camera, techniques of digital capture, color management and color correction. They will also develop competency in scanning, retouching, printing and a variety of manipulation techniques in Photoshop. Through weekly lectures and critiques, students will become familiar with some of the most critical issues of representation, consider examples from photo history, analyze the impact of new technologies and social media. With an emphasis on structured shooting assignments, students are encouraged to experiment, expand their visual vocabulary while refining their technical skills. No previous experience is necessary. Although it is beneficial for students to have their own Digital SLR camera, registered students may reserve and checkout Digital SLR cameras and other high-end equipment from the department.

FNAR 653 Advanced Projects in Animation

prerequisite: FNAR 567

Through a series of studio projects, this course will focus on advanced concepts in 3D computer animation and 2D compositing. The courses will cover advanced techniques for rigging animated characters or structures, shading 3D forms, working with dynamic simulations, rendering projects, and compositing complex shots. Topics discussed will include production pipelines, motion-capture, and methods of developing ideas for animation. The schedule of the course will lend itself to allowing members to complete ambitious self-conceived animation projects.

FNAR 661 Video I

This course provides students with the introductory skills and concepts related to producing short works that explore the language of the moving image. Students will learn the basics of cinematography and editing through a series of assignments designed to facilitate the use of the medium for artistic inquiry, cultural expression and narrative storytelling, through both individual and group projects.

FNAR 662 Video II

prerequisite: FNAR 661

Video II offers opportunities to further explore the role of cinematic narrative technique, non-narrative forms, digital video cinematography, editing, and screen aesthetics. Through a series of several video projects and a variety of technical exercises, students will refine their ability to articulate technically and conceptually complex creative projects in digital cinema. In addition, one presentation on a contemporary issue related to the application of cinematic storytelling and/or the cultural context of digital video is required.

FNAR 663 Documentary Video

prerequisites: FNAR 661

Documentary Video is an intensive production course involving the exploration of concepts, techniques, concerns, and aesthetics of the short form documentary. Building on camera, sound, and editing skills acquired in Video I, students will produce a portfolio of short videos and one longer project over the course of the semester using advanced level camera and sound equipment. One short presentation on a genre, technique, maker, or contemporary concern selected by the student is required.

FNAR 664 Interactive Video

This course explores the concepts and technologies behind non-linear storytelling through mediums such as DVD's and the worldwide web. Students will learn to make interactive DVD videos as a form of expression and explore the possibilities of streaming video making.

FNAR 667 Advanced Video Projects

prerequisite: FNAR 662

This course is structured to create a focused environment and support for individual inquiries and projects. Students will present and discuss their work in one on one meetings with the instructor and in group critiques. Readings, screenings, and technical demonstrations will vary depending on students' past history as well as technical, theoretical, and aesthetic interests. Course approval will be based on application prior to the beginning of the semester.

FNAR 668 Cinematography

prerequisite: FNAR 661

This course will be a technical, practical and aethetic exploration of the art of cinematography as it pertains to film and digital video. Through screenings, in-class excercises and assignments, students will increase their Video I skills in lighting and cinematography as a form of visual expression. Topics covered include shot composition, camera movement, lenses, filtration and color, exposure, lighting techniques, location shooting and how to use grip equipment. Discussions, demos and lectures will include relevant and illustrative historical motion picture photography, current digital video technology, and examples that explore interactions between film and video.

FNAR 671 Film Sound

Sound and Image as experienced in the cinema, are not divisible. One perception influences the other, and transforms it. While a preexisting harmony between these two senses may exist, its conventions are subject to manipulation and the whims of subversion. Film Sound tracks the technological and aesthetic history of sound for film including psychoacoustics, dialogue, music, sound fx and audio's gradual and triumphant march towards fidelity, stereo and surround sound. This lecture course, through an historical and pedagogical romp loaded with examples throughout film history and visits by lauded audio professionals from the film world, seeks to instruct students to engage in the process of sound perception, gaining an appreciation for the art of sound as it relates to the varied phenomenological dimensions of that unique audio-visual encounter we call movies.

FNAR 675 Image and Sound Editing

This course presents an in-depth look at the storytelling power of image and sound in both narrative and documentary motion pictures. Students apply a theoretical framework in ongoing workshops, exploring practical approaches to picture editing and sound design. Students edit scenes with a variety of aesthetic approaches, and create story-driven soundtracks with the use of sound FX, dialogue replacement, foleys, music and mixing. Students not only learn critical skills that expand creative possibilities, but also broaden their understanding of the critical relationship between image and sound.

FNAR 678 Interfacing Cultures

This course introduces advanced topics related to contemporary media technologies, ranging from social media to mobile phones applications and urban interfaces. Students learn how to use new methods from interaction design, service design, and social media and work towards prototyping their ideas using new platforms and media. The class will cover a range of topics such as such as online-gaming, viral communication, interface culture, networked environments, internet of things and discuss their artistic, social, and cultural implications to the public domain.

ARCH 741 Architectural Design Innovation

The mastery of techniques, whether in design, production or both, does not necessarily yield great architecture. As we all know, the most advanced techniques can still yield average designs. Architects are becoming increasingly adept at producing complexity and integrating digital design and fabrication techniques into their design process - yet there are few truly elegant projects. Only certain projects that are sophisticated at the level of technique achieve elegance. This seminar explores some of the instances in which designers are able to move beyond technique, by commanding them to such a degree so as to achieve elegant aesthetics within the formal development of projects.

ARCH 743 Form and Algorithm

A course on the philosophy and generative tools of Informal design, which is defined in terms of non-Cartesian, non-linear geometries and borrows algorithmic procedures from models in mathematics and the physical sciences. The course reviews readings on the topic, introductory instruction in scripting and assignments through which students gain familiarity and skill with specific non-linear models. This seminar meets every other week.

ARCH 744 Digital Fabrication

A seminar and design workshop that explores associative and parametric CAD-CAM strategies, to enable an interactive continuity between conception and fabrication. Through parametric 3D constructions, students will explore how to link dink different aspects of the architectural projects, such as: (1) design intention; (2) control of variation and adaptation; (3) construction constraints; (4) digital fabrication processes. The course emphasizes the cross-fertilization of formal, technical and performative aspects of the design activity.

ARCH 745 Nonlinear Systems Biology & Design

Systems biology examines the nature of nonlinearities, emergent properties and loosely coupled modules that are the hallmarks of 'complexity'. New models for research and design in architecture have grown in response to radical breakthroughs in technology and an increasing interest in the use of algorithmic and generative tools within the design process. Algorithmic imaging and molecular tools found useful in analyzing nonlinear biological systems may therefore prove to be of value to new directions in design within architecture. This course explores the potential of dialogues between architecture and nonlinear systems biology to gain insight into living systems, develop techniques for digital modeling, and create experimental designs with rigor at various length scales, from the microscopic to the human. Part seminar and part workshop, it serves to deepen knowledge of nonlinear biosynthesis, a synthesis of design thinking and tooling through the study of systems biology. Students will develop a series of digital and physical models through the use of a 3D printer and a diverse range of scripting and modeling techniques in parametric and associative software. The final assignment is a design project with accompanying abstract and report.