EMERGING DESIGN AND RESEARCH CERTIFICATE PROGRAM

Emerging Design and Research Certificate addresses design challenges that require crossing disciplines. The program supports a research-based design pedagogy that integrates new skills, methods, tools, and techniques that often cannot be addressed with the expertise of a single discipline. Emerging design researchers respond to contemporary issues using a wide variety of media ranging from print and screen-based interfaces, mobile applications, responsive materials, urban-scale installations to programming the behavior of organic matter. They question the role of design in the society and the way it resonates with the cultural, political economical and environmental realities of 21st Century.

The “Emerging Design and Research Certificate” certifies an area of concentration in the School of Design to address the needs for such design culture. It intends to facilitate the teaching of the theories, techniques and technology for a new breed of artists, designers and researchers who can be equally versed in visual communication, physical prototyping, software, hardware, and interaction design. For today’s cultural producers, “Emerging Design Practices” fosters a pedagogy in which individuals can design their creative expressions, resistances, responsibilities, and critical attitude as a response to the society they are living in.

The Emerging Design Certificate offers a research-based study plan. In addition to taking classes, students are expected to propose and realize a research project under the guidance of the certificate director and follow a study plan where they take the necessary courses to realize their project. In the new certificate, students will still be able study visual communication and take graphic design classes but now also have the chance to expand their studies by taking other type of design classes offered across the School of Design.

This a graduate only certificate. The program track requires 5 CU’s (course units), including two required courses and three electives, 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. Students will apply with a statement of intent, a research proposal, and a portfolio. The certificate director will review their admission and discuss a study plan with them based on their research proposal.

Submission of a portfolio is required and should be included with the application. The portfolio should include at least 15 examples of digital images, printed images, books, video or interactive projects. Digital and video portfolios should follow the guidelines for MFA portfolios.

CONTACT

Inquiries relating to admission should be directed to:
School of Design
Office of Admissions
University of Pennsylvania
110 Meyerson Hall
Philadelphia, PA 19104-6311
Tel : 215.898.6520
Fax : 215.573.3927
Email: admissions@design.upenn.edu

Prospective applicants wishing to contact the Department of Fine Arts directly, may contact:
Jane Irish, Coordinator
Telephone: 215-898-8374
Facsimile: 215-573-2439
Email: mfa@design.upenn.edu
EMERGING DESIGN AND RESEARCH CERTIFICATE PROGRAM CURRICULUM

_requiredCourses (2)_

FNAR-638. Creative Research (Seminar)
FNAR 999. Independent Study: Research Thesis & Project

Recommended Elective Courses

FNAR 538  Open Book
FNAR/IPD 568  Interactive Design Studio: Cultures of Making.
FNAR 553  Advanced Projects in Printmaking.
FNAR 634  Web Design I
FNAR 636  Art, Design, and Digital Culture
FNAR 637  Information Design and Visualization.
FNAR 670  Advanced Graphic Design and Typography
FNAR 712/ARCH 712  Visual Epistemologies for Creative Practices
ARCH 744/IPD 544  Digital Fabrication
ARCH 728/IPD 528  Design of Contemporary Products - Smart Objects

Approval of Electives and Recommended Sequence

The selection and sequence of the elective courses must be approved by the Director of the Emerging Design and Research Certificate program.
COURSE DESCRIPTIONS

FNAR 638. Creative Research
This seminar explores what it means to do research in creative and critical practices. Students will learn about different research methods from, design and engineering, to the humanities and sciences. They will utilize these methods for developing and evaluating their individual creative work as cultural producers. This is an interdisciplinary course that encourages students to observe, measure, analyze, test, study, experiment, diagram, prototype, speculate, generate and criticize; apply multiple modes of inquiry; be conceptual, analytical, propositional and critical at the same time, all in order to develop their work from different perspectives.

FNAR 999. Independent Study: Research Thesis & Project
A required course (1CU) that evaluates a course of study, students develop, document and report on project.

FNAR 538. Open Book
“Open Book” will focus on visual communication of information. It will address two methods of inquiry and the corresponding means of visual representation: the objective, well-structured research of facts and images, and the creative process of their subjective evaluation and restatement. Students will propose a topic based on their area of interest and engage in a focused, semester-long exploration, which they will present in the form of a designed and printed book.

FNAR 553. Advanced Projects in Printmaking.
prerequisite(s): FNAR 551 and FNAR 552 or FNAR 557
This course will concentrate on expanding imagery in print media. The course requires the proposal of a directed final project to be developed during the semester. Three initial exploratory projects will culminate in the final. Projects are open to all print media, but there will be an emphasis on screen printing. Techniques will be addressed as they serve the needs of ideas rather than a set technical procedure. Through individual consultation, scheduled class critiques, and field trips, attention will be given to studio work in and out of printmaking so that the technical and conceptual strengths of print media can serve as a worthwhile adjunct to an overall studio practice.

FNAR/IPD 568. Integrative Design Studio: Cultures of Making
prerequisite: FNAR 636
This is a research-based design studio that introduces new materials, fabrication, and prototyping techniques to develop a series of design proposals in response to a specific theme every semester. Students will work in an interdisciplinary environment towards building new kinds of visualizations, objects, machines, buildings, or environments that use play as a critical, generative, resistive, and creative strategy. Through design, we will explore the vocabulary of printed electronics, computational materials, liquid disposition, 3D scanning and prototyping techniques and build proposals that can interface with complex social, cultural and environmental issues. We will expand the studio work with additional perspectives from guest speakers and visitors ranging from artists to toy company representatives.

FNAR 634. Web Design I
prerequisite: FNAR 636
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 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 637. Information Design and Visualization
prerequisite: FNAR 636
Information Design and Visualization is an introductory course that explores the structures of information (text, numbers, images, sounds, video, etc.) and presents strategies for designing effective visual communication appropriate for various users and audiences. The course seeks to articulate a vocabulary of information visualization and find new design forms for an increasingly complex culture.

FNAR 670. Advanced Graphic Design and Typography
prerequisite(s): FNAR 566 AND FNAR 569 or permission of instructor
This course will explore advanced commercial, public and personal forms of visual communication. Emphasis will be placed on creative problem solving with consideration for audience. Discussion of design history, current ideology and future design applications will inform individual student projects. Work generated in this studio can be used to build a portfolio.

FNAR 712. Visual Epistemologies for Creative Practices
In this joint seminar between Architecture and Fine Arts, we investigate the alternative modes of diagrammatic thinking that are influencing art and design disciplines. The course provides a historical perspective on the evolution of visual epistemologies from late 1950s and reviews its current state from the lens of contemporary representation theory, computation, fabrication, and information technologies. The goal is to gain both theoretical and hands-on experience with the contemporary diagramming techniques in order to advance both designs and the thinking behind them.

ARCH 744/IPD 544. 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 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 728/IPD 528. Design of Contemporary Products
Smart objects are information-based products that are in ongoing dialogs with people, the cloud and each other. By crafting rich interactions, designers can create expressive behaviors for these objects based on sophisticated programmed responses. At the same time, sensor technologies have enabled us to introduce natural gestures as a means of interacting with a product. (Not only can we push, pull and twist data value, but we can wave at, caress, tilt and shake it as well.) With an explosion of new possibilities for object interaction and human control, it is the designer’s role to envision new solutions that are both meaningful and responsible. Through a series of lectures and hands-on studio exercises, interaction systems, ergonomics, data networks and contexts of use. The course will culminate in a final project that considers all aspects of smart object design within the context of a larger theme.