PH 2000 Photography 1 – 3 cr.
This class introduces students to important ideas and work from the history of photography as a means of contextualizing and articulating their own work. Utilizing the digital photography workflow, Photography 1 moves from camera operation through Photoshop processing to various output formats from web to paper. Emphasis will be placed on the way decisions made at each step of this process contribute to photographic form, function, and meaning. Photography 1 consists of technical demonstrations, readings, visual lectures, and group and individual critiques.
Prerequisite: Foundation: Media 1
Outcomes:
- Expand working knowledge of digital single lens reflex camera
- Establish professional digital workflow for photographic images
- Make professional digital prints
- Produce an extended project
- Articulate concepts and techniques through class critique

PH 2500 Network and Archive – 3 cr.
This course explores the relationship between groups of images and their circulation, especially with regard to digital media and environments. In the process of setting up a viable, professional archive of their own work, students utilize a variety of tools from keywords to GPS tagging for the organization, retrieval, and dissemination of their images. Additionally, students explore social media as a system of interlocking archives and create an online network of their own work across various web-based platforms.
Prerequisite: Foundation: Media 1
Outcomes:
- Understand the structure and operation of archives, including categories, typologies, chronologies, surveys, and mapping systems
- Explore the various forms of archives including traditional material archives and digital archives
- Understand the relationship between metadata and image
- Explore collaborative technologies and the potential of social media
- Acquire a working understanding of one of searchable database applications

PH 3015 Photography 2 – 3 cr.
This course is a thorough exploration of the materials, processes, and techniques of analog photography. Students acquire a thorough working knowledge of roll film and large-format photography. This course emphasizes advanced understanding of negative exposure, film processing, tonal-range manipulation, digital scanning, and large-format output. Contemporary issues and concepts are explored through reading, visual research, and discussion and then applied through a series of visual problems. Students are evaluated on individual projects, critiques, a final portfolio, discussions, and quizzes. Prerequisite: Photography 1
Outcomes:
• Operate an analog view camera
• Operate a large format digital camera
• Expose, develop, scan and print large format analog film
• Produce a final portfolio of an extended project
• Articulate concepts and techniques through class critique

PH 3035 Documentary Style – 3 cr.
This course is an introduction to documentary traditions and contemporary considerations in photography. Students access difficult subject matter and learn the ethics of real-world engagement through several long-term projects undertaken in the course. Students learn to research and write about their subject matter while using DSLR, analog, or video cameras to complete their assignments. Historical and contemporary issues are explored through readings and discussions. Students are evaluated on individual projects, critiques, a final portfolio, discussions, and quizzes. Prerequisite: Photography 1

Outcomes:
• Identify and shape an area of interest for extended research
• Identify various methodologies in contemporary documentary practice
• Create a final portfolio of an extended documentary project
• Articulate concepts and techniques through class critique

PH 3045 Studio and Set – 3 cr.
This course is designed to provide students with a basic understanding of the aesthetic, technical, theoretical, and conceptual issues related to artificial lighting used in the various aspects of still and moving image production. Technical information covered includes portrait lighting, studio set lighting, architectural lighting, electronic flash, continuous light, camera movement, blocking for actors, and color compensation. In addition to the technical and practical aspects of this course, students are expected and encouraged to develop a personal aesthetic and a conceptual foundation for their images. Prerequisite: Photography 1, or Introduction to Animation, or Introduction to Film, or Web + Screen

Outcomes:
• Employ advanced lighting techniques for studio and location still and moving images
• Use continuous LED, tungsten and fluorescent lighting systems
• Use an electronic flash system
• Build, dress and art-direct sets
• Safely operate all lighting equipment and lighting support systems
• Articulate concepts and techniques through class critique

PH 3050 Photo Book – 3 cr.
The central goal of this class is the understanding and shaping of photographic meaning through book conception and production. Projects and exercises develop skills in sequence, image layout, image and text relationships, and physicality. A major portion of the class is devoted to producing a book of one’s own work. Creative use of page layout software, refinement of digital printing techniques, and the use of online
publishing software are explored. Activities also include critiques, image and book lectures, technical demonstrations, field trips, and student presentations. Prerequisites: Photography 1

Outcomes:
- Identify sequence/temporal strategies with photographs
- Identify issues of context to shape meaning using page layout, text and other visuals
- Define layout opportunities with Adobe InDesign
- Evaluate explore print-on-demand publishing
- Discuss and interpret semester-long book

PH 3055 Photographic Systems – 3 cr.
This course is designed to develop and expand the strategies of photographic representation through projects, readings, writing assignments, critiques, and visual image presentations. Photography is explored as a visualizing medium for related fields: sculpture, performance, literature, science, psychology, social media, etc. Contemporary interest in the materiality of photographic processes including non-camera image making and abstract photography are also explored. Attention to display possibilities as a means to construct context and shape meaning is emphasized. Digital and analog imaging techniques introduced in Photography 1 are further explored. Prerequisite: Photography 2, may be taken concurrently

Outcomes:
- Define and implement systematic approaches for photographic practice. Evaluate via a produced body of work.
- Identify linkages to fields outside of photography (visual arts, science, literature, etc.) as ideas for photography and create resultant imagery.
- Identify recent interests in photographic materials, abstraction, and cameraless as system of image production.
- Create portfolio as evaluative tool.

PH 3061 Video Game Design with Unreal 4 – 1 cr.
In this course students learn the basics of creating playable, first-person video game levels using the Unreal 4 game engine software. Students construct a basic level layout and learn simple theory regarding the design of those assets. Classroom activities include Unreal 4 tool demonstrations, design theory, lectures, gameplay video, and discussion regarding game design. Prerequisite: Foundation: Media 2 or permission from instructor

Outcomes:
- Students identify a new game engine software
- Students employ specific tools and protocols with Unreal 4
- Students produce distinct exercise with virtual spaces

PH 3062 Sound Design for Time-Based Media – 1 cr.
This course explores the use of sound as a major narrative and environmental component for visual time-based media including film, animation, game, and video
installation. Through editing and manipulating audio to establish tone, space, realism (or surrealism), and intensity, students design sound that takes their visual work to the next level. The course covers the full range of sound design from single sound effects to six-channel ambience and from acquisition to final implementation. Prerequisite: Foundation: Media 1

Outcomes:
- Record, edit, and manipulate audio for picture
- Operate audio software effects plugins
- Use sound as a narrative device for visual media
- Identify successful sound design in all forms of media
- Work quickly within limited time constraints

PH 3063 Surround Sound Mixing – 1 cr.
Sound effects, ambient tracks, foley, dialog, and music must work together to support any visual media and the secret to success is in the mix. This course provides students hands-on experience with mixing automation, equalization, compression, mastering, and final output in 5.1 surround sound using the M/LAB audio studio and exhibition space. Students create an array of challenging individual projects to increase their skills in mixing for auditorium, home theater, and gallery exhibition. Prerequisite: Foundation: Media 1

Outcomes:
- Operate an audio studio
- Perform multi-track audio mixing with automation
- Generate output files for specific playback systems in different formats
- Implement proper data management techniques

PH 3065 Sound – 3 cr.
Designed to acquaint students technically and conceptually with the medium of sound, this course provides a basic working vocabulary for understanding, discussing, and producing sounds. Topics covered include basic perceptual concepts and fundamentals of composing sound such as pitch, rhythm, duration, and volume. Students complete a series of assigned projects designed to demonstrate and assess competencies with microphones, studio recording, and digital editing, mixing, and processing. Prerequisite: Foundation: Media 2

Outcomes:
- Record clean professional sound in studio and location situations
- Record using MCAD’s sound production facilities
- Edit, mix and sweeten sound using professional audio software
- Articulate concepts and techniques through class critique

PH 3070 Expanded Processes – 3 cr.
This course concentrates on hand coated photographic prints using historic and contemporary chemical recipes and high UV light sources, including the sun. Using large format negatives, students utilize a variety of processes, including cyanotype, salt print, palladium/platinum print, gum print, and liquid light. Emphasis is placed on
chemistry, safety, and the relationship of print syntax to photographic meaning. 
Prerequisite: Photography 2

Outcomes:
• Create work in a variety of alternative processes including cyanotype, salt print, palladium print, etc.
• Demonstrate a working knowledge of various photographic chemistries and materials
• Explore the relationship between photographic process and meaning
• Create a portfolio that engages a process or subject using the alternatives processes covered in class

PH 3083 Advanced Post-Production – 1 cr.
This five-week workshop expands on knowledge acquired in Digital Photography Studio with an emphasis in advanced digital post-production to include workflow protocol and retouching skills. The course consists of demonstrations, in-class exercises, problem solving discussions, and critiques. Prerequisite: Digital Photography Studio

PH 4000 Professional Practice – 3 cr.
The primary focus of this class is to provide media arts students with the tools that enable them to enter professional practice immediately following graduation. Each student is required to produce a polished resume, artist statement, website, professional identity system, and portfolio. Topics include long range goal creation and planning; financial, legal and other business considerations; grant writing; and communication and marketing skills involving verbal, written, and visual presentations. Topics are presented through a series of lectures, critiques, and presentations by experts in the field. Prerequisite: Junior standing

Outcomes:
• Achieve proficiency in the essential professional practices of the field.
• Set long-range goals and plans.
• Examine financial, legal and business considerations.
• Discuss networking and marketing skills.
• Create verbal, written and visual presentations.
• Document work professionally; produce a polished resume, artist’s statement, letterhead, business cards, web page/site and portfolio.
• Reach an understanding of personal process, methods and sources of inspiration as an artist.
• Discuss values as they pertain to the commercial environment.

PH 4010 Internship: Photography – 3 cr.
Internships provide an opportunity for students to gain practical experience in a particular career area and valuable on-the-job skills. Internships may be arranged by the Director of Career Services or initiated by students. All internships must be preapproved through the Career Services Office. For an internship to be approved, a mentor relationship and learning experience should exist beyond a simple employment
opportunity. Three-credit internships require working 120 hours at the internship site and keeping a journal of hours and activities. Prerequisite: Professional Practice

**PH 5010 Advanced Photography Seminar – 3 cr.**
This course is designed to enable and support students working on independent projects in photography. Students are encouraged to articulate concerns and shape them into a body of work. Appropriate advanced technical skills and readings are introduced with particular attention to verbal and written critical skills. Critiques, image lectures, discussions, technical demos, student presentations, journals, and exhibition/publication submissions encourage individual investigation and creative expansion. Prerequisite: Successful Junior Review

**Outcomes:**
- Demonstrate ability to develop formal, conceptual, and personal concern into a unified body of work
- Demonstrate ability to engage in self-generated research and project development.
- Evaluate ongoing project through discussion and evaluation.

**PH 5100 Senior Project: Photography – 6 cr.**
During senior year, each media arts major is required to develop and complete a substantial body of work in his or her major. This course provides a forum for the critical evaluation of this work and curatorial guidance in preparation for the Commencement Exhibition. Course content includes critical readings, position paper, individual and group discussion, school presentation, and informational meetings. Prerequisites: Successful Junior Review, senior standing

**Outcomes:**
- Students develop a substantial project in a field related to their major
- Students generate work toward their BFA Commencement exhibition
- Students expand their vocabulary and critical engagement across all majors in Media Arts (Animation/Film/Ph/WMM)
- Students generate a position paper and artist statements supported the project