

WEB AND MULTIMEDIA ENVIRONMENTS Course Descriptions and Outcomes

WMM 3010 Installation + Performance – 3 cr.

This class offers an in-depth exploration of the art and design concepts related to physical space: whether defined as an art installation, live performance, museum exhibition design, or retail environment. Participants study a variety of points of intersection between human interaction, physical spaces/objects, and technology. A variety of sensing and tracking technologies are surveyed and implemented. High and low technologies are reviewed from the perspective of various modes of artist/performer/audience-customer interaction. Prerequisite: Foundation: Media 2

Outcomes:

- Identify and investigate art and design concepts related to physical and virtual spaces.
- Illustrate various definitions and creative approaches to evocations of installation and performance.
- Define installation and performance as important models of contemporary multidisciplinary art practice.
- Critique the relationship between physical and immaterial media.
- Create installations and events centered around meaningful intersection of multiple media.

WMM 3020 Web + Screen – 3 cr.

Building on their initial exposure to web design and development in Foundation: Media 1 and 2, students engage in a thorough examination of current web-publishing standards, concepts, and development tools. Topics covered in this course range from web design and development—including Internet-based art practices, interactive screen-based publication formats, commercial websites, generative and algorithmic art, information design, and digital storytelling—to broader screen-based aesthetics and practices. Machine-to-machine as well as human-machine interactions are presented. Creative and investigative approaches to network-driven concepts are encouraged. Prerequisite: Foundation: Media 2

Outcomes:

- Explore screen-based aesthetics and practices.
- Create web and screen based projects.
- Develop web based programming practices.
- Examine human to machine interaction.
- Discuss web and screen based practices and projects.

WMM 3030 Virtual Environments – 3 cr.

This class is concerned with virtual worlds developed entirely within the digital realm. Students learn how to write and develop ideas for nonlinear narratives and characters as well as how to build and/or modify fully functional virtual environments for single and multiple users. Issues covered include interface design, interaction, character design, animation, nonlinear structure, rules, and algorithms. Additionally, the class offers a thorough survey and study of programming concepts related to development of games and simulated environments. Prerequisite: Foundation: Media 2

Outcomes:

- Produce interactive virtual environments for single and multiple users
- Construct 3D models for virtual environments
- Develop virtual environment programming practices
- Discuss contemporary and historic virtual environment trends and artists
- Identify non-linear structures, rules, and algorithms relating to Virtual Environments

WMM 3040 Coding Concepts – 3 cr.

This course further supplements the programming needs of students enrolled in all web and multimedia environments classes. Students are taught a range of practical programming skills and concepts and are exposed to the creative approach of recognizing programming and computational experimentation as an art medium. Coding structures, data organization, and generative and algorithmic strategies are emphasized. This course provides an opportunity for in-depth investigation of topics and programming problems of special interest to students developing interactive environments, multimedia installations, and screen-based works. Some topics covered include generative algorithms, data-mining, random events, interactive states, user input, physics, the systematic combination of media, and artificial intelligence. Prerequisite: Foundation: Media 2

Outcomes:

- Develop strong programming vocabulary.
- Identify the most efficient solutions for programming problems.
- Develop and utilize core programming concepts.
- Create independent code based projects.
- Discuss code based generative, networking, interactive, and multimedia projects.

WMM 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

WMM 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:

- Identify a new game engine software
- Employ specific tools and protocols with Unreal 4
- Produce distinct exercise with virtual spaces

WMM 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

WMM 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

WMM 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 using MCAD's sound production facilities and location situations
- Edit, mix and sweeten sound using professional audio software
- Articulate audio recording and editing concepts and techniques through class critique
- Identify a multitude of types of sound, sound art, contemporary and historical artists working with sound

WMM 4000 Professional Practice – 3 cr.

This course addresses processes needed to succeed in the contemporary professional field of interactive multimedia. Topics include interviewing, documentation, marketing and promotion, and the preparation of a professional portfolio. Guest lecturers cover business setup, copyright issues, and tax and legal documents. Visiting-artist presentations connect abstract information with real-world experience. 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.

WMM 4010 Internship: Web + Multimedia – 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

WMM 5010 Advanced Installation + Performance – 3 cr.

This course expands the technical expertise, creative vocabulary, and conceptual sophistication of students interested in installation and performance. While working on substantially more complex and individualized projects, students are encouraged to develop a more personal direction and sensibility. Special emphasis is placed on an

investigation of practical concerns related to positioning and implementation of the projects in specific environments such as galleries, museums, performance venues, or retail environments. Prerequisite: Installation + Performance

Outcomes:

- Build on skills and experience acquired in Intermediate Installation and Performance.
- Demonstrate sophisticated investigation and understanding of hybrid and emerging media.
- Interpret intersections of human interaction, physical spaces/objects and technology.
- Produce multiple events and installations supported by readings, critiques and discussions.
- Create advanced installations and events centered around meaningful intersection of multiple media.

WMM 5020 Advanced Web + Screen – 3 cr.

Building on the cumulative experiences of web and multimedia environments students, this course presents an opportunity for students to engage in and develop a more specific and individualized body of work in screen- and web-based practices. Critical class reviews and discussions, readings, lectures, and demonstrations support the development of large-scale projects. Students are encouraged to further identify and develop specific career goals in their field of practice. Prerequisite: Web + Screen

Outcomes:

- Build upon existing skills from Web & Screen.
- Identify and utilize core web programming concepts.
- Develop an advanced body of work in web and screen based practices.
- Discuss web and screen based practices and projects.
- Identify and develop specific career goals.

WMM 5030 Advanced Virtual Environments – 3 cr.

This class provides students with an opportunity to further refine their creative, technical, and programmatic skills while working on larger-scale, sophisticated projects. Students engage in studies of theoretical, critical, and cultural concepts relevant to the design, development, implementation, and impact of games in contemporary society. Students are encouraged to investigate and identify their career plans and recognize their potential role in the context of the gaming industry. Specific career models and skill sets are discussed in relation to specialized aspects of game design and development. Prerequisite: Virtual Environments

Outcomes:

- Build on skills from Virtual Environments.
- Meaningfully contribute to a collaborative workflow.
- Develop an advanced understanding of Virtual Environment design, development and implementation.
- Produce a large-scale, sophisticated project within a singular virtual environment.

- Identify and develop specific career goals.

WMM 5040 Advanced Web + Multimedia Seminar – 3 cr.

In this seminar students expand their understanding of practice within a cross-media platform. Students engage in intensive theoretical and critical studies in tandem with the development of advanced projects. Special emphasis is given to hybrid media and experimental exploration. Given that this course is open to all majors, students have an opportunity to engage and interact with those studying different fields, challenge and expand their knowledge and vocabulary, and gain a deeper understanding of interdisciplinary practice. Prerequisite: Foundation: Media 1

Outcomes:

- Develop individual and/or group projects.
- Examine projects through presentation and critique.
- Write and conduct formal reviews of peers' work.
- Formulate an understanding of practice within a cross-media platform.
- Engage in intensive theoretical and critical studies through readings, discussions and development of advanced projects.

WMM 5100 Senior Project: Web + Multimedia – 6 cr.

During senior year, each web and multimedia environments major is required to develop and complete a substantial project in a specific field of study. 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, informational meetings, and a presentation to the college on this work. Required for all seniors. Prerequisites: Successful Junior Review, senior standing

Outcomes:

- Develop a substantial project in a field related to the major.
- Generate work toward their BFA commencement exhibition.
- Expand their vocabulary and critical engagement across all majors in Media Arts.
- Generate a position paper and artist statement supporting their practice.