

# INTEGRATED DESIGN AND MEDIA (DM-GY)

## DM-GY 910X Special Topics in Digital Media (1-3 Credits)

*Typically offered occasionally*

Offered by special arrangement with faculty, visiting scholars and professionals in the field, this course may be repeated for credit with different topics. | Prerequisite: permission of instructor.

**Grading:** Grad Poly Graded

**Repeatable for additional credit:** Yes

## DM-GY 921X Independent Study in Design & Media (1-3 Credits)

*Typically offered Fall and Spring*

An independent study is designed to supplement a student's education when there is no IDM class nor a course in other schools in the University that meet a specific academic need that directly relates to Thesis or Capstone work. | Prerequisite: Department Consent. Anti-Requisites: DM-GY 9973 or DM-GY 9983

**Grading:** Grad Poly Graded

**Repeatable for additional credit:** Yes

## DM-GY 6033 Media Organizations (3 Credits)

*Typically offered not typically offered*

This course is a general orientation to a broad range of media-producing organization types, from pirate radio stations and ad-hoc collectives to major corporations. Each organization has specific advantages and disadvantages, and each has a specific range of work types it can support effectively. The ultimate purpose of the course is to provide a "big-picture" orientation to the different environments in which media get made and distributed and to help students clarify goals and needs so they can make wiser choices about directing their studies and work toward the right career.

**Grading:** Grad Poly Graded

**Repeatable for additional credit:** No

## DM-GY 6043 Theories and Cultural Impact of Media & Technology (3 Credits)

*Typically offered Fall*

In this course, students will examine and analyze the history and theoretical discourse of media and technology, while connecting these studies to contemporary trends and issues. Students will also explore the cultural impact of media and technology. Lectures, discussions, readings, research, and writing constitute the body of this course.

**Grading:** Grad Poly Graded

**Repeatable for additional credit:** No

## DM-GY 6053 Ideation & Prototyping (3 Credits)

*Typically offered Spring*

In this class, the creative process will be investigated in order to generate ideas for art, design, technology, and business endeavors. The course will show how ideation, design research & thinking, and prototyping can inspire, inform, and bring depth to what one ultimately creates. Students will expand their arsenal of design research skills, learn how to think critically about their audience, content, form, and processes, as well as, understand the importance of utilizing more than one research and design strategy.

**Grading:** Grad Poly Graded

**Repeatable for additional credit:** No

## DM-GY 6063 Creative Coding (3 Credits)

*Typically offered Fall*

This course is an introductory programming class, appropriate for students with no prior programming experience. Traditionally, introductory programming teaches algorithmic problem-solving, where a sequence of instructions describe the steps necessary to achieve a desired result. In this course, students are trained to go beyond this sequential thinking – to think concurrently and modularly. By its end, students are empowered to write and read code for event-driven, object-oriented, graphical user interfaces.

**Grading:** Grad Poly Graded

**Repeatable for additional credit:** No

## DM-GY 6073 Research Methods and Analysis (3 Credits)

*Typically offered Fall*

Students will explore, learn, and develop a variety of tools and frameworks to use in conducting forms of creative research, with a focus on approaches and methods that are useful to creative practitioners. These approaches are both oriented towards research in the field as well as research driven by creative practice and its tangible outcomes. Students will undertake a process through the semester which will demonstrate that every part of doing research – from reading to refining research questions; from planning to execution; from documenting to analysis – is a designed process. Restricted to first year IDM MS students. | Co-Requisites: DM-UGY 6053 and DM-GY 6063

**Grading:** Grad Poly Graded

**Repeatable for additional credit:** No

## DM-GY 6103 Live Performance Studio (3 Credits)

*Typically offered Fall*

This course introduces students to contemporary digital-performance techniques and issues, i.e., integrating computing technology into traditional performing arts. Drawing on contemporary research in performance studies, as well as technical advances in performing-arts production design, students perform research on how digital technology and media are integrated into dance, theater, performance art and concert-music performance. Students develop performance technologies as part of their research and present them to the group at the end of the semester.

**Grading:** Grad Poly Graded

**Repeatable for additional credit:** No

## DM-GY 6113 Sound Studio (3 Credits)

*Typically offered occasionally*

This course introduces DM students to contemporary techniques and issues in audio, sound and musical research. The class covers digital signal processing, synthesis, musical informatics and interaction design as it applies to contemporary music production, postproduction and live performance. Students are expected to achieve competence in a number of technologies and to create brief studies based on them.

**Grading:** Grad Poly Graded

**Repeatable for additional credit:** No

## DM-GY 6123 Cinema Studio (3 Credits)

*Typically offered occasionally*

Students use developed skills to explore and exploit digital-video technology. Course material centers on cinema and its many forms. Class time is divided between hands-on technical demonstrations, group work, and case studies of relevant historical work in film and video. A range of cinema approaches is demonstrated and encouraged.

**Grading:** Grad Poly Graded

**Repeatable for additional credit:** No

**DM-GY 6133 Mobile Augmented Reality Studio (3 Credits)***Typically offered Fall*

This course examines the potential of mobile augmented reality [AR] and its future impact on society. Augmented reality technology is poised to revolutionize the way we understand the world by overlaying physical reality with real time, interactive digital content. AR will change our interaction with digital media by dissolving the user interface and turning it into a physical experience of sight and sound. This course will explore these emerging possibilities through hands on learning with the latest software and hardware. The class explores techniques and methodologies through guest lectures and regular studio practice to give students an overview of the possibilities and the current state of the art, and to prepare them for thesis work or subsequent course work. Students will gain a strong understanding of the AR industry's past, present, and especially its future trends. It is recommended that students have experience with Photoshop and Maya or 3D Max software.

**Grading:** Grad Poly Graded**Repeatable for additional credit:** No**DM-GY 6143 Interaction Design Studio (3 Credits)***Typically offered occasionally*

This seminar introduces students from diverse backgrounds to interaction design as a creative and a design practice. The course surveys application areas, supporting technologies and their impact on individual and group relationships. Group projects introduce the collaborative and interdisciplinary development process common in the professional technology and design. Students are expected to develop technology competencies, including software programming, configuration of hardware devices and the operation of standard digital media hardware and software tools. Students are also expected to demonstrate interpretive positions regarding analysis of the impact of technology on individuals and social interactions.

**Grading:** Grad Poly Graded**Repeatable for additional credit:** No**DM-GY 6153 Game Design Studio (3 Credits)***Typically offered occasionally*

This course guides graduate students through contemporary thought in game design, development, user testing and deployment. The course will benefit students interested in research or employment opportunities in game design or in related fields that require an understanding of human-computer interaction. This studio provides a foundation understanding of how games are developed, tested and experienced.

**Grading:** Grad Poly Graded**Repeatable for additional credit:** No**DM-GY 7033 Media Law (3 Credits)***Typically offered Spring*

This advanced seminar explores in depth the theoretical and practical aspects of media-communications principles and regulations. Knowledge of media law is crucial for professionals. A full range of models will be explored, from Open Source public license to Digital Rights Management, as well as working definitions of Fair Use and the practical limits of sampling/mixing in different idioms and economic sectors.

**Grading:** Grad Poly Graded**Repeatable for additional credit:** No**DM-GY 7053 Developing Assistive Technology (3 Credits)***Typically offered Fall*

This multidisciplinary course allows students from a variety of backgrounds to work together to learn about and develop assistive technology, as well as cultivate a better understanding of the people being served. Students will work in teams to identify clinical needs relevant to their chosen client and learn the process of developing an idea and following that through to the development of a prototype product.

**Grading:** Grad Poly Graded**Repeatable for additional credit:** No**DM-GY 7063 Art v. Techne: An Introduction to Art Criticism (3 Credits)***Typically offered Fall*

This course is designed to introduce students to a range of critical and theoretical texts about art and technology. It will also address how to apply those texts to visual criticism and the student's own work and interests. Moving from foundational Western philosophies through to the contemporary theoretical thought, we will grapple with essential questions such as: what is an image? How do we look at things? What constitutes a technology? How do we construe technology in the context of modernity? What do we do with these theoretical frames when we sit down to write and make media? Students will have the option of a final critical written paper OR an artistic or technological practice-based response with a self-written curatorial framework.

**Grading:** Grad Poly Graded**Repeatable for additional credit:** No**DM-GY 7073 Design Studies (3 Credits)***Typically offered Spring*

Every aspect of our everyday lives is mediated by technologies and media; designed tools and infrastructures. In this context, students will be challenged to ask "What is design?". What differentiates it from, and connects it to craft, art, or engineering? This course uses design texts, supplemented by texts from the humanities and social sciences, as a lens with which to think and understand design practices and technology infrastructures. Over the course of the semester, students will learn both how to articulate and structure critical and analytical arguments, technological artifacts, as well as put their new ways of understanding technology to use, through lectures, workshops, and assignments. Restricted to first year IDM MS students.

**Grading:** Grad Poly Graded**Repeatable for additional credit:** No**DM-GY 7133 User Experience Design (3 Credits)***Typically offered Fall and Spring*

This is an introductory course on user experience design methodologies following a user-centered design process. The course is oriented toward practical methods for approaching a design problem holistically, beyond usability and usefulness. In this class, you will develop an appreciation for the notion of user experience including how to design for it and how to evaluate it. The course will focus on storytelling, sketching, and communication of design ideas within a design team and to potential users. Assignments will focus on hands-on learning through individual assignments, application of design skills in group mini-projects, and peer critique.

**Grading:** Grad Poly Graded**Repeatable for additional credit:** No

**DM-GY 7153 Images in the Expanded Field (3 Credits)***Typically offered Spring*

How do images operate in the world? Do they contain memories or tell myths? Can they reproduce and generate new images? This course is not a dystopian science fiction about object sentience—it's a hands-on exploration of contemporary themes within moving image practice. Through short readings, film screenings, group discussions, and self-directed design propositions, we will explore these questions, revealing their power and potential socio-ethico-political implications.

**Grading:** Grad Poly Graded**Repeatable for additional credit:** No**DM-GY 7163 Virtual Production Development (3 Credits)***Typically offered Fall*

This class will discuss the key issues, challenges, and best practices in visual storytelling in Cinema and emerging media like real-time spatial computing. The class will teach how to architect and lead a virtual production by creating a dialogue between the Producer, Director, and Cinematographer in filmmaking with the Technical Producer and Director in creative technology. The class will cover an overview of all of the technical skills required to produce a remote virtual production through the lens of a project manager making administrative and creative decisions. This class will culminate in a real-time 3D project exploring motion capture and virtual production that will create a narrative cinematic work with the class themes in mind.

**Grading:** Grad Poly Graded**Repeatable for additional credit:** No**DM-GY 9003 Doctoral Seminar in Technology, Culture, and Society (3 Credits)***Typically offered Fall and Spring*

The objectives of this seminar are to familiarize you with the key viewpoints in the literature on Technology, Culture, and Society. The readings are selected to highlight the important contributions to the literature by past and current academics. A critical analysis and review of this body of literature will set the stage for future research.

**Grading:** Grad Poly Graded**Repeatable for additional credit:** Yes**DM-GY 9102 Special Topics in Digital Media (2 Credits)***Typically offered occasionally*

Offered by special arrangement with faculty, visiting scholars and professionals in the field, this course may be repeated for credit with different topics.

**Grading:** Grad Poly Graded**Repeatable for additional credit:** Yes**DM-GY 9103 Special Topics in Digital Media (3 Credits)***Typically offered occasionally*

Offered by special arrangement with faculty, visiting scholars and professionals in the field, this course may be repeated for credit with different topics.

**Grading:** Grad Poly Graded**Repeatable for additional credit:** Yes**DM-GY 9104 Digital Media Special Topics (4 Credits)**

Offered by special arrangement with faculty, visiting scholars, and professionals in the field, this course may be repeated for credit with different topics.

**Grading:** Grad Poly Graded**Repeatable for additional credit:** Yes**DM-GY 9113 Special Topics Seminar in Design & Media (3 Credits)***Typically offered Fall and Spring*

Special Topics Seminar in Design & Media is a variable topics course that will allow IDM faculty to offer courses that deal with specific areas relevant to IDM MS students, specifically those that deal with philosophical, ethical, theoretical, historical, or social topics. This course will fulfill part of the IDM seminar requirement for graduate students. Topics may include ethics, theory, science and technology studies, accessibility studies, art/media/design history, software studies among others.

**Grading:** Grad Poly Graded**Repeatable for additional credit:** Yes**DM-GY 9201 Special Topics in Integrated Design & Media (1.5 Credits)***Typically offered Fall and Spring*

Offered by special arrangement with faculty, visiting scholars, and professionals in the field, this course may be repeated for credit with different topics.

**Grading:** Grad Poly Graded**Repeatable for additional credit:** Yes**DM-GY 9963 MS Pre-Thesis in Digital Media: Research Methods (3 Credits)***Typically offered Fall and Spring*

This course is the research portion of the MS Thesis in Integrated Digital Media. Each student, guided by a thesis adviser and other faculty support, completes the research and process documentation for their MS thesis. | Prerequisite: DM-GY 9113 or DM-GY 6043.

**Grading:** Grad Poly Graded**Repeatable for additional credit:** No**Prerequisites:** DM-GY 9113 or DM-GY 6043.**DM-GY 9973 MS Thesis in Digital Media (3 Credits)***Typically offered Fall and Spring*

This course is the capstone of the MS program in Integrated Design & Media. Each student, guided by a thesis adviser and with the other faculty support as required by the specific project, completes a major media-production project. The thesis form and format are determined by agreement between the student and adviser with department approval. The goal is to advance the student's career and to contribute to the profession. Students are encouraged to seek professional outlets for their thesis. | Prerequisites: DM-GY 9963

**Grading:** Satisfactory/Unsatisfactory**Repeatable for additional credit:** Yes**Prerequisites:** DM-GY 9963.**DM-GY 9983 Capstone Studio in Integrated Design & Media (3 Credits)***Typically offered Fall and Spring*

This is a project-based course where students will undertake a substantial media or design project that demonstrates a high level of competency, creative action, and professionalism. Students in the capstone studio will spend their time working on a project of their own design, culminating in an artifact, experience, or intervention that is accompanied by a written document that describes and accompanies the work. Public presentation of the work is central to the experience and will be shown in a group setting at the end of the semester. Students must have an approved project prior to registration. | Prerequisite: Department Permission

**Grading:** Grad Poly Graded**Repeatable for additional credit:** No

**DM-GY 9990 Graduate Colloquium (0 Credits)**

*Typically offered Fall and Spring*

In a weekly one-hour colloquium, graduate students meet together for open critiques and lecture series / discussions, organized by students and faculty. | Prerequisite: Limited to Graduate IDM Students only.

**Grading:** Grad Poly Pass/Fail

**Repeatable for additional credit:** Yes

**Prerequisites:** Limited to Graduate IDM Students only.