AME 550 Prototyping Futures – Lauren Ruffin
In this project-based course, students work in interdisciplinary teams to explore and envision the future of communities, industries, technologies and other elements of our society. In this process, students develop their understanding of the application of extended reality technologies, practices and methodologies for design, and tools for applying research to constructing prototypical scenarios for the future, in addition to gaining experience in effective collaboration. This course is about critical, methodological and narrative skills—the ability to move fluidly through domains, create low-fidelity prototypes, and devise creative solutions to complex problems by envisioning new realities. The development of deep technical skills in a chosen field follows in each program.

AME 551 Designing XR Experiences – Nicholas Pilarski
Augmented reality and virtual reality games, advertisements, installations and other media integrate virtual objects with real-world environments in an emerging computing paradigm called extended reality (XR). Students learn skills to creatively develop interactive mixed-reality objects and environments. Expect a basic understanding of Unity.

HDA 494/598 ReMIX – Jake Pinholster and Ana Herruzo
This course will engage students in treating the Media and Immersive eXperience Center as a site for experimentation and project-based practice in the design of interactive exhibits and immersive installations. Students will gain experience in understanding systems of interactive and mediated environments, working with client and stakeholder groups, and managing complex projects in collaborative teams.

DCS 551 Immersive Experience Design I - Ana Herruzo
Focuses on the practices of design for immersive experiences using different media including but not limited to extended reality technologies. Students work on interdisciplinary projects using and developing their skills on composition/aesthetics of environmental design; programmatic/spatial requirements in both real and virtual universes; modeling/simulation of spaces/objects in 3D animated environments, motion graphics, 3D printing/rapid prototyping, storytelling and world building. Develops abilities to manage projects, work effectively in teams and transform research into creative/technological products.

DSC 555 Strategic Design Futures – Mauricio Mejia
Designers are increasingly addressing more strategic and long-term situations, while non-designers are increasingly interested in using design approaches to address diverse challenges. Strategic design is a practice that focuses on formulating strategies (problem setting) rather than only implementing strategies (problem solving). Strategic design is closely related to contemporary and emergent design practices such as user experience design, design thinking, service design, speculative design, behavioral design, and co-design, which are increasingly explored, adopted and adapted in projects and organizations. Students understand and practice a variety of strategic design methods and mindsets with the aim of changing and envisioning futures. With hands-on activities and real-world context, students use and develop core strategic design skills such as visualization, sensemaking, synthesis, speculation and facilitation. Some design tools that may be used include storyboards, user flows, journey mapping, participatory ideation, visioning, service blueprints, prototyping-testing. Includes seminar discussions and hands-on activities with a 'live project.'

DSC 598 Experimental Data Visualization – Weidi Zhang
An interdisciplinary course that examines existing, new, and emerging approaches to data visualization art/design, topics, and trends in visualization research and their applications. The course bridges information aesthetics, data art, interactive media, and multi-media data transformation. This course will enable students from art, design, and engineering background to investigate the following three directions using Processing and/or P5.JS: 1. Interactive data visualization and information design 2. Data art in 3D space 3. Data-driven art/design and/or multi-media data transformation and/or Machine Learning. Students will research, analyze, explore and design interactive data visualizations through lectures, technical demos, and hands-on projects.
AME 598, GIT 494/598 Spatial Design - Laura Cechanowicz

In this course, we will explore utilizing a variety of software platforms & tools to explore spatial design development. This course will pair conceptual, artistic, and formal elements of spatial design principles with technical skill development, approaching familiar software including After Effects, Maya, and Photoshop, among others, to develop spatial design and media experiences. Considering the history of production design in film, experiential design of parks and museum experiences, and immersive media, we will develop conceptual languages and approaches to working spatially with graphic information technology. As part of our work, we will seek to identify community partners who may be able to concretely benefit from our explorations of spatial design. Our ideation linked to these partners may be purely speculative in nature, but students are also able to work with Instructor, inside class constraints, to create concrete relationships with community partners with approval.

AME 598 Interactive Media for Social Transformation – Nicholas Pilarski

Public art, co-creation, and community narrative is in the process of being radically re-invented. As artists, municipalities, and communities begin to tell their stories across geographies and disciplines, special attention must be paid to the process of co-creation through an emerging digital vernacular. In this graduate-level course, students will study the pedagogy, history, and various processes of co-creation for telling interactive, non-linear stories, and histories. The course will culminate in students archiving, documenting, designing, and fabricating interactive community narrative(s). No previous experience in public art or interactive design required.

DSC 494/598, HDA 494/598, AME 598 City/Narrative Space: Placemaking/Public Media Art – Kristy H. A. Kang

How can cities and their communities tell their stories using new and emerging media? In this course students will be introduced to unique and topical contemporary issues in new and emerging media with a focus on placemaking, spatial media, projection art and mediated public space. Students will explore one or more issues related to the course, conduct analysis and exploration of a selected city and community and produce an original response that addresses a specific aspect or topic identified in the course. The course will act as a laboratory to develop diverse approaches to visualizing and narrating a city’s stories by investigating and researching a neighborhood or area of a city that has undergone rapid change and whose cultural history has been overlooked or is invisible to visitors and residents. The discoveries in the course would become the basis for developing interactive narratives and concepts for experience designs in digital placemaking. The classroom becomes an exploratory environment to excavate one’s own city and find creative ways, using new and emerging media, to tell stories about the city.

HDA 494/598, AME 598 Creating, Funding and Distributing Stories with Web 3 – Lauren Ruffin

New technologies are changing the way stories are told, financed, and distributed. Blockchain, cryptocurrency, and thriving digital communities willing to pay for content make it possible for independent filmmakers (immersive and traditional) to gain ownership and maintain control over the work though the entire life cycle of a story. This course will examine the opportunities and challenges filmmakers and creative technologists are navigating as Web3 finds its footing as a new catalyst for storytelling. The course will also share how BIPOC, queer, and disabled can leverage Web 3 technologies to advance narrative shifts for their communities.

DSC 494/598 Assembled Reality – Image-making and Multimedia – Weidi Zhang

The diversity and functionality of interactive technology and computational multi-media system design have provided new ways to make images. Interactive generative visual integrates human-computer interaction with real-time graphics to enable artists to design interactive digital content. In this course, students will be instructed to use a visual programming language (Touchdesigner) to process real-time moving images, build and design interactive systems for digital content, and transform image data into different forms in 3D virtual space. The class aims to provide students with creative methodologies to develop images in new forms and mediums. In the process, the class will critically evaluate the changing ontology of images in the context of generative art, and computer vision. The class will discuss and trace the significant topics in the media art field from the 20th century to the present day. By the end of the class, students are expected to design and build multimedia systems for interactive audio/visual experiences.