

# EMERGING MEDIA ARTS (EMAR)

## EMAR 99 Ignite: Undergraduate Colloquium

**Prerequisites:** Major in Emerging Media Arts.

**Description:** A weekly forum for emerging media arts majors to interact with guest artists, participate in lectures and engage with a broad range of emerging media-related topics.

**Credit Hours:** 0

**Max credits per semester:**

**Max credits per degree:**

**Grading Option:** Pass No Pass

**Offered:** FALL/SPR

## EMAR 110 Story Lab I

**Prerequisites:** Major in Emerging Media Arts.

**Description:** Introduction to storytelling across multiple media platforms. Development of storytelling craft and technique. Critical analysis of story structure for media production.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded

**Offered:** FALL

**Prerequisite for:** EMAR 111

**ACE:** ACE 7 Arts

## EMAR 111 Story Lab II

**Prerequisites:** EMAR 110 with grade of C or better

**Description:** Continuation of concepts presented in Story Lab I. Introduction to the writing methods that are fundamental to media arts creation.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded

**Offered:** SPRING

**Prerequisite for:** EMAR 212; EMAR 242; EMAR 243; EMAR 311; EMAR 341

**Course and Laboratory Fee:** \$25

## EMAR 120 Games, Play and Performance

**Prerequisites:** Emerging Media Arts major

**Description:** Experiential-based exploration of live performance, game creation and group collaboration as a model for project development and iterative practices.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded

**Offered:** FALL/SPR

## EMAR 140 Visual Expression Studio I

**Prerequisites:** Major in Emerging Media Arts

**Description:** The elements, principles and practices of design as a storytelling language.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded

**Prerequisite for:** EMAR 141; EMAR 251

**ACE:** ACE 2 Communication Competence

**Course and Laboratory Fee:** \$65

## EMAR 141 Visual Expression Studio II

**Prerequisites:** EMAR 140 with grade of C or better

**Description:** Expansion of design concepts presented in Visual Expression I. Project-based exploration of digital, live-action, and virtual storytelling.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded

**Offered:** SPRING

**Prerequisite for:** EMAR 212; EMAR 242; EMAR 243; EMAR 250;

EMAR 280; EMAR 282; EMAR 284

**Course and Laboratory Fee:** \$50

## EMAR 160 Computation and Media Studio I

**Prerequisites:** Major in Emerging Media Arts.

**Description:** Development of computation and computer science skills and knowledge in context of emerging media arts.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded

**Offered:** FALL

**Prerequisite for:** EMAR 161

**ACE:** ACE 3 Math/Stat/Reasoning

## EMAR 161 Computation and Media Studio II

**Prerequisites:** EMAR 160 with grade of C or better

**Description:** Continuation of topics and projects developed in Computation and Media Studio I.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded

**Offered:** SPRING

**Prerequisite for:** EMAR 212; EMAR 242; EMAR 243; EMAR 246;

EMAR 345; EMAR 348; EMAR 349

**Course and Laboratory Fee:** \$40

## EMAR 212 Story Abroad

**Prerequisites:** EMAR 161, EMAR 111, and EMAR 141 with grade of C or better.

**Description:** Immersive exploration into how the city influences story and how story shapes perceptions of place. Explore, discover, and draw inspiration from faces and food, street corners and subways. Draw upon these sources of inspiration to create city inspired projects told through film, design, and digital technology. Affiliated with UNL Global Experiences.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded

**Offered:** SUMMER

## EMAR 220 History of Media Arts

**Prerequisites:** Emerging Media Arts major

**Description:** A critical history of communication and media from oral storytelling to modern digital media.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded

### **EMAR 242 Principles of Interactivity**

**Prerequisites:** EMAR 111, EMAR 141, and EMAR 161 with a grade of C or better.

**Description:** Introduction to how humans and non-humans inform systems design for both physical and digital worlds. Principles, foundations, and ethics of meaningful interaction design.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded

**Offered:** FALL

**Prerequisite for:** EMAR 445

**Course and Laboratory Fee:** \$35

### **EMAR 243 Introduction to Game Engines**

**Prerequisites:** EMAR 111, EMAR 141, and EMAR 161 with a grade of C or better.

**Description:** Introduction to fundamentals common to most game engines. Computer-based exercises and project-based assignments to develop skills applicable to games, visualizations, simulations, and interactive media.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded

**Offered:** FALL/SPR

**Prerequisite for:** EMAR 343

### **EMAR 246 Digital Fabrication and Physical Computing**

**Prerequisites:** EMAR 161 with a grade of C or better.

**Description:** Introduction to digital fabrication techniques and physical computing hardware through emerging media arts topics.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded

**Prerequisite for:** EMAR 445

**Course and Laboratory Fee:** \$120

### **EMAR 250 Cinema Production I**

**Prerequisites:** EMAR 141

**Description:** Introduction to the tools and aesthetics of the moving image. Fundamentals of digital cinema cameras, lenses, lighting and editing. Production of experimental and non-sync films.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded

**Offered:** FALL

**Prerequisite for:** EMAR 252; EMAR 384

**Course and Laboratory Fee:** \$100

### **EMAR 251 Sound Lab**

**Prerequisites:** EMAR 140 with grade of C or better

**Description:** Introduction to sound and audio as a design element in traditional and emerging media art projects.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded

**Prerequisite for:** EMAR 361; EMAR 363

**Course and Laboratory Fee:** \$30

**Experiential Learning:** Creative Activity

### **EMAR 252 Cinema Production II**

**Prerequisites:** EMAR 250

**Description:** Advanced techniques and projects in the production of narrative cinema.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded

**Offered:** SPRING

**Prerequisite for:** EMAR 353; EMAR 354; EMAR 451; EMAR 452; THEA 415, THEA 815; THEA 488; THEA 496

**Course and Laboratory Fee:** \$200

### **EMAR 280 Digital Image Manipulation**

**Prerequisites:** EMAR 141

**Description:** Manipulate pixel-based imagery to properly create, imagine, combine, alter, and repair digital images.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded

### **EMAR 281 Digital Visual Effects**

**Prerequisites:** EMAR 284

**Description:** Compositing, Rotoscoping, and 3D simulations.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded

**Offered:** SPRING

**Course and Laboratory Fee:** \$200

### **EMAR 282 Digital Modeling I**

**Prerequisites:** EMAR 141

**Description:** Basics of 3D modeling and textures.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded

**Offered:** SPRING

**Prerequisite for:** EMAR 283; EMAR 440

**Course and Laboratory Fee:** \$215

### **EMAR 283 Digital Animation I**

**Prerequisites:** EMAR 282

**Description:** Introduction to animating 3D assets and characters.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded

**Offered:** SPRING

**Prerequisite for:** EMAR 383

**Course and Laboratory Fee:** \$220

### **EMAR 284 Digital Motion Graphics**

**Prerequisites:** EMAR 141

**Description:** Creating moving text and images using compositing and animation software.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded

**Offered:** FALL

**Prerequisite for:** EMAR 281

**Course and Laboratory Fee:** \$200

### EMAR 311 Screenplay: Short Script

**Prerequisites:** EMAR 111 with a grade of C or better.

**Description:** Approaches and techniques to writing the short screenplay including: correct format, character development, story structure, conflict and revision. Writing assignments including developmental writing exercises and complete short scripts, with faculty and peer critique.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded

**Offered:** FALL

### EMAR 330 World Ready

**Prerequisites:** Major in Emerging Media Arts with Junior standing.

**Description:** Examination of the business and intellectual property practices utilized in the contemporary entertainment, arts, and media industries. Development of student portfolio and personal marketing as preparation to enter these industries.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded

### EMAR 331 Innovation Studio I

**Prerequisites:** Emerging Media Arts major and junior standing

**Description:** First semester of a year-long, faculty guided exploration of a topic or theme via creation of wide-ranging emerging media projects.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded

**Offered:** FALL/SPR

**Prerequisite for:** EMAR 332

**Course and Laboratory Fee:** \$20

### EMAR 332 Innovation Studio II

**Prerequisites:** EMAR 331

**Description:** Second semester of a year-long, faculty guided exploration of a topic or theme via creation of wide-ranging emerging media projects.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded

**Offered:** FALL/SPR

**Course and Laboratory Fee:** \$20

### EMAR 341 Storyworlds

**Prerequisites:** Major in Emerging Media Arts and EMAR 111

**Description:** Team-based creation, critique, and iteration of holistic fictional worlds. Exploration of the methodologies for investigation, ideation and development of virtual worlds drawn from a variety of inspirational sources including design, fiction, speculative design and ethnography. Creation of final projects that could be deployed as a media franchise or metaverse.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded

**Offered:** FALL

### EMAR 343 Game Engines for Real-time Performances

**Prerequisites:** EMAR 243

**Notes:** Project-based and collaboration oriented resulting in a team-led performance for an audience

**Description:** Exercise artistic processes within a game engine and while using real-time rendering. Focuses on the application of performance using motion capture and body data as the primary input for motion-based programming such as avatar control, sound, lighting, and visual effects as body driven outputs.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded

**Offered:** SPRING

**Prerequisite for:** EMAR 384

### EMAR 345 Smart Environments

**Prerequisites:** Major in Emerging Media Arts and EMAR 161

**Description:** Introduction to smart environments across multiple scales. Create and interact with functional smart environment systems.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded

**Offered:** FALL/SPR

**Prerequisite for:** EMAR 445

### EMAR 348 Data and Art

**Prerequisites:** Major in Emerging Media Arts and EMAR 161

**Description:** Application of emerging media tools and techniques to produce, analyze, and communicate meaningfully with data.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded

### EMAR 349 Machine Learning for the Arts

**Prerequisites:** Major in Emerging Media Arts and EMAR 161

**Description:** Application of Machine Learning tools and techniques to create computationally generated art.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded

**Prerequisite for:** EMAR 445

### EMAR 353 Cinema Postproduction I

**Prerequisites:** EMAR 252

**Description:** Advanced editing techniques and studio software.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded

**Course and Laboratory Fee:** \$100

### EMAR 354 Lighting for Cinema

**Prerequisites:** EMAR 252

**Description:** Advanced application of lighting concepts, technology, and techniques.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded

**Offered:** FALL

**Course and Laboratory Fee:** \$200

#### **EMAR 361 Cinema Sound: Edit**

**Prerequisites:** EMAR 251

**Description:** Editorial and audio design processes, tools and techniques for creating and editing cinema dialog, music, sound effects and environments. Recording and editing of audio projects using audio facilities, and digital audio workstations. Industry standard techniques for dialog editorial, automated dialog replacement sound effects libraries and recording. Professional practices and exploration of the post-audio team for film and television.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded

**Offered:** FALL

**Prerequisite for:** EMAR 461

**Course and Laboratory Fee:** \$80

#### **EMAR 363 Sound Design and Synthesis**

**Prerequisites:** EMAR 251 or MUSC 282 or 283

**Description:** Develop proficiency in technical skills, creative processes, and critical listening within the realms of sound design, and synthesis.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded

**Prerequisite for:** EMAR 463

#### **EMAR 383 Digital Motion and Rigging II**

**Prerequisites:** EMAR 283

**Description:** Expansion on concepts established in EMAR 283. Advanced rigging and animating of 3D assets.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded

#### **EMAR 384 Virtual Production**

**Prerequisites:** EMAR 250 and EMAR 343

**Description:** Introduction to the creative practice of Virtual Production (VP). Learn to integrate game engines, motion tracking, and physical cinema. Formulate, structure, and present new media in modalities of choice. Gain experience with identifying technologies appropriate to a project and learning the necessary skills to put those technologies into use.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded

**Offered:** SPRING

#### **EMAR 391 Special Topics in Emerging Media Arts**

**Prerequisites:** Major in Emerging Media Arts and Permission.

**Description:** Varied topics in Emerging Media Arts.

**Credit Hours:** 1-3

**Min credits per semester:** 1

**Max credits per semester:** 3

**Max credits per degree:** 24

**Grading Option:** Graded

**Course and Laboratory Fee:** \$50

#### **EMAR 396 Independent Study**

**Prerequisites:** Permission.

**Description:** Independent work in emerging media arts.

**Credit Hours:** 1-3

**Min credits per semester:** 1

**Max credits per semester:** 3

**Max credits per degree:** 6

**Grading Option:** Graded

**Offered:** FALL/SPR

#### **EMAR 398 Advanced Projects in Emerging Media Arts**

**Prerequisites:** EMAR major with junior standing or higher; and permission.

**Description:** Create an Emerging Media Arts project applying advanced principles of history, theory, design, and production.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded

**Offered:** FALL/SPR

#### **EMAR 440 Projects in VR**

**Prerequisites:** EMAR 282

**Description:** Creating VR experiences using 3D software and game engines.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded

**Offered:** SPRING

**Course and Laboratory Fee:** \$20

#### **EMAR 444 Extended Theater**

**Prerequisites:** Junior or senior standing and major in emerging media arts.

**Description:** Explores how emerging media arts can expand forms of performance, play, sound, movement, and theatrical relationships in new ways. Considers site, context, location, situation, and audience as central components of the experience design process.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 6

**Grading Option:** Graded

**Offered:** FALL/SPR

#### **EMAR 445 Creative Machines**

**Prerequisites:** EMAR 342, EMAR 345, EMAR 349, or EMAR 446

**Description:** Integrate multiple computational tools to create creative machines. Learn key ideas from systems art, cybernetics, and computational creativity, and apply these to the development of self-guided projects. Demonstrate generative, interactive, and computational techniques at an advanced undergraduate level.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded

**Offered:** FALL

**EMAR 451 Directing Cinema****Prerequisites:** EMAR 252**Description:** Develop the skills required to successfully direct a film. Critically analyze a script; shape an actor's performance and balance the technical demands of each scene.**Credit Hours:** 3**Max credits per semester:** 3**Max credits per degree:** 3**Grading Option:** Graded**Course and Laboratory Fee:** \$120**EMAR 452 Producing Cinema****Prerequisites:** EMAR 252**Description:** The role and responsibilities of the producer and production manager throughout the film production process. The budgeting, organizational, managerial, and supervisory skills required by a creative film producer from financing to distribution.**Credit Hours:** 3**Max credits per semester:** 3**Max credits per degree:** 3**Grading Option:** Graded**Offered:** SPRING**Course and Laboratory Fee:** \$175**EMAR 461 Cinema Sound: Mix****Prerequisites:** EMAR 361**Description:** Build on the processes, tools, and techniques in EMAR 361 Cinema Sound: Edit; prepare and mix audio tracks for motion pictures.**Credit Hours:** 3**Max credits per semester:** 3**Max credits per degree:** 3**Grading Option:** Graded**Offered:** SPRING**EMAR 463 Spatial and Interactive Sound****Prerequisites:** EMAR 363**Description:** Exploration and application of the technical and conceptual fundamentals of interactivity as applied to ambisonic and surround audio. Experimentation with the techniques, systems and computational processes used to generate immersive sound through computation and interactive design.**Credit Hours:** 3**Max credits per semester:** 3**Max credits per degree:** 3**Grading Option:** Graded**EMAR 479 Capstone Project in Emerging Media Arts****Crosslisted with:** THEA 479**Prerequisites:** Emerging Media Arts major and senior standing**Description:** Supervised planning and production of thesis projects in emerging media arts.**Credit Hours:** 1-3**Min credits per semester:** 1**Max credits per semester:** 3**Max credits per degree:** 6**Grading Option:** Graded**Offered:** FALL/SPR**ACE:** ACE 10 Integrated Product**Course and Laboratory Fee:** \$50**Experiential Learning:** Creative Activity, Leadership**EMAR 495 Internship in Emerging Media Arts****Prerequisites:** Sophomore standing and permission.**Description:** Structured internships with professional companies, organizations or individuals on or off campus.**Credit Hours:** 1-3**Min credits per semester:** 1**Max credits per semester:** 3**Max credits per degree:** 6**Grading Option:** Graded**EMAR 499H Honors Undergraduate Thesis****Prerequisites:** Permission**Notes:** Open to seniors who are candidates for degrees with distinction, with high distinction, and with highest distinction in the Hixson-Lied College of Fine and Performing Arts; good standing in the University Honors Program or by invitation.**Description:** Independent research leading to a thesis.**Credit Hours:** 1-3**Min credits per semester:** 1**Max credits per semester:** 3**Max credits per degree:** 6**Grading Option:** Graded**Offered:** FALL/SPR