

# DIGITAL WORLDS INSTITUTE

## Course Search

Not all courses are offered every semester. Refer to the schedule of courses for each term's specific offerings.

[More Info](#)

*Courses at the University of Florida, with the exception of specific foreign language courses and courses in the online Master of Arts in Mass Communication program, are taught in English.*

## Courses

### DIG 2121 Principles of Digital Visualization 3 Credits

Develops appreciation and basic fluency in the application of visual and design literacy into emergent forms of digital media. Historical and theoretical perspectives inform hands-on learning across topics including pre-visualization and storyboarding in static and time-based media, and the critical analysis of contemporary and iconic visual storytelling.

### DIG 2632 Creating Mobile Games 3 Credits

Introduces designing mobile video games with simple drag and drop programming and basic asset creation. Covers the essential principles of design and development needed to create effective arcade-style games. Provides a solid foundation in the technical skills needed to create multi-platform mobile games.

### DIG 2930 Special Topics: Foundations of Digital Culture 3 Credits

In-depth examination of the technological and cultural underpinnings that shape current electronic media including video games, the internet, computer-animated movies, and virtual reality.

### DIG 2931C Special Topics in Digital Media 1-3 Credits

Special topics course to address contemporary digital arts and sciences issues. This flexible pedagogic mechanism provides DAS a dimension of vitality that compliments theory-based offerings with an up-to-the-minute examination of emergent cultural and technological events and developments.

**Prereq:** instructor permission

### DIG 3020 Foundations of Digital Culture 3 Credits

An interdisciplinary overview of the technological and cultural developments that continue to shape the modern world. Student research covers topics including telecommunications, digital and analog technologies, video games, computer-generated entertainment and the rise of social media. (WR)

**Prereq:** DAR or DAS major or instructor permission  
WR4

### DIG 3305C 3D Digital Animation Techniques 3 Credits

Practical and design techniques for the implementation of three-dimensional digital animations. Basic principles of 3D vector transformations, virtual camera calibration, modeling and 3D rendering. Work on interaction event handling, graphical interface design and key-framing using both industry-standard tools and also open-source tools to perform a frame-by-frame study of traditional and contemporary motion picture animation.

**Prereq:** DAR major and junior standing or above

### DIG 3313C 2D Digital Animation Techniques 3 Credits

Practical principles and techniques of 2D software environments for animation. Includes keyframe-based techniques for web and other interactive environments, and vector-valued image processing, representation and major file formats, user-driven interactive animations and algorithm-driven digital animation for game design.

**Prereq:** DAR major and junior standing or above

### DIG 3433 Digital Storytelling 3 Credits

Develops a framework for integrating participation and storytelling as the foundation of interactivity. Explores how story is incorporated into contemporary interactive platforms such as games and other digital media, including virtual worlds, video blogs and social networks.

**Prereq:** DAR major and junior standing or above

### DIG 3506 Interdisciplinary Design Methods for Digital Arts and Sciences 2 Credits

Comprehensive overview of industry and academy standard design methods and processes. Interdisciplinary design practices from process-focused fields like interaction design, human-centered design, design research and computer-supported collaborative work. Construction and delivery of needs analyses, audience analyses, and design documents, and iterative design practices including rapid prototyping, user-testing, real-time research, conceptual design and agile development. Students will use one of these design frameworks to take a DAS design prototype from conceptualization to user-testing.

**Prereq:** DAR major and junior standing or above

### DIG 3525C DAS Design and Production Studio 1 3 Credits

An interdisciplinary design and production studio environment exploring linear narrative techniques found in both traditional and emergent media forms. Collaborative teams will create a major digital media artifact incorporating diverse and effective narrative devices and techniques to persuasively tell a complex story.

**Prereq:** DAR major and junior standing or above

### DIG 3526C DAS Design and Production Studio 2 3 Credits

Working within an interdisciplinary digital arts and sciences (DAS) design and production studio environment, students will focus on network and Internet-based technologies, delivery systems and content generation. Students will participate in the creation of two major collaborative group projects or one major semester-long project.

**Prereq:** DAR major and DIG 3525C with minimum grade of C

### DIG 3588C Digital Portfolio 1-3 Credits

Provides technical and design skills for the creation of a digital portfolio with interactive media suitable for distribution, including DVD and a portfolio website. Also covers techniques for using and linking social media, digital branding and personal marketing.

**Prereq:** DAR major and junior standing or above

### DIG 3713 Game Design Practices 3 Credits

Provides both theoretical and practical knowledge and essential technical skills for the conceptualization and digital visualization of video game assets. Covers the principles and practical applications of industry-standard software suites. Emphasizes developing strong foundational skills, compelling conceptual ideas, and self-motivated problem solving.

**Prereq:** DAR major and junior standing or above

### DIG 3873 Theory of Digital Media Protocols 3 Credits

Covers the theory behind the design of digital media systems, data-flow logic, binary data structures and pseudo-code description of computational algorithms. The students will be exposed to fundamental principles of computer coding and scripting and protocols of communication between digital systems.

**Prereq:** DAR major and junior standing or above

- DIG 3878 Applied Digital Media Protocols** **3 Credits**  
Introduces contemporary protocols for mobile application development. Topics include procedural and object-oriented programming, mobile software development practices, design and implementation of natural human-computer interaction for mobile and wearable platforms. Students will develop skills in programming their own applications with graphical user interfaces for portable digital media systems.  
**Prereq:** DIG 3873 with minimum grade of C
- DIG 4097 Entrepreneurship in New Media** **3 Credits**  
Using An Interdisciplinary Approach, Students Acquire Fluency in Techniques of Idea Generation, Innovation, Internet Startups, Video Games, Mobile Applications, Promotion and Branding, Company Boot Strapping, and Business Plan Creation. the Focus Is on Developing Creative and Business Skills Applicable to New Media Startups.  
**Prereq:** DAR major and senior standing
- DIG 4151 Adv Wri Interac Media** **3 Credits**  
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- DIG 4154 Writing for Interactive Media** **3 Credits**  
Provides in-depth analysis and opportunity to hone writing skills needed in the creation and development of interactive digital media. Students will investigate approaches for generating high-quality writing and the blend between development, planning, technical and creative writing through writing the documents to support a digital media project's development and production.  
**Prereq:** DAR major and senior standing
- DIG 4171C Digital Tools for Arts and Humanities** **3 Credits**  
The study of digital applications, games, tools, and social networks to enhance research in the arts and humanities. The course examines and expands on current theoretical discussions, applications, and methodologies. An interdisciplinary group project will further engage students in collaborative research and offer hands-on experience with digital tools.
- DIG 4255C Audio Design for Digital Production** **3 Credits**  
Professional techniques for the creation of audio content for variety of applications in the digital arts and sciences. Software tools for conversion, storing, processing and retrieval of sound in a variety of digital formats. Fundamentals of loop-based audio design, sampling and work with an industry standard software with linear and interactive digital media.  
**Prereq:** DAR major and senior standing
- DIG 4283 Music and Sound Design for Digital Media** **3 Credits**  
Investigates techniques, tools and current research in music and sound design for digital media for DAR and DAS non-music majors.
- DIG 4306C Advanced Digital Animation Techniques** **3 Credits**  
Practical principles and techniques of 3D software environments for animation. Includes triangular mesh design and editing, splines (NURBS), shading techniques and lighting, different camera projection models, rendering techniques, and efficient use of GPU for photo realistic real-time 3D animation.  
**Prereq:** DAR major and DIG 3305C with minimum grade of C or instructor permission
- DIG 4527C Game Design and Production** **3 Credits**  
Interdisciplinary approach to game design and production. Emphasizes rapid prototyping, agile design, collaboration, and project management in a relatively short development cycle. Work on idea pitches, write concept proposals, and work to develop a video game.  
**Prereq:** DAR major and DIG 4715C with minimum grade of C
- DIG 4583C DAS Design and Production Studio 4** **3 Credits**  
As the capstone academic experience resulting from work within the interdisciplinary DAS environment, students will choose their own semester-long project that solves a problem or presents a new technical or cultural capability via enhanced human-computer interaction.  
**Prereq:** DAR major and DIG 4527C with minimum grade of C
- DIG 4634 Wearable and Mobile App Development** **3 Credits**  
Examines software development protocols for wearable and mobile electronics such as head-mounted displays, watches, and cellphones. Studies several embedded input/output interfaces, including position and orientation sensors, hand trackers, holographic, and stereoscopic displays. Materials are practiced by developing prototype software applications for such devices.  
**Prereq:** DIG 3878 with minimum grade of C
- DIG 4715C Game Development** **3 Credits**  
Elaborates on concepts, processes and technical practices introduced in DIG3713C; use game design fundamentals to craft effective digital games. Detailed examination of conceptual techniques in game design and their use in DAS design practice; comparative introduction of frameworks for game design; technical components of 2D and 3D game design.
- DIG 4841 Undergraduate Research Forum** **3 Credits**  
Seminar Focuses on Collaborative Interdisciplinary Research in the Digital Arts and Sciences. Develop, Refine, and Present Research Projects and Process Related to Traditional and Contemporary Industry Concerns, Practices, and Trajectories.  
**Prereq:** DAR major and senior standing
- DIG 4905 Independent Study** **1-4 Credits**  
Independent study of special or individual DIG projects and issues, under faculty supervision.  
**Prereq:** consent of faculty member supervising the study
- DIG 4932 Colloquium in Digital Arts and Sciences** **1 Credit**  
Seminars explores current affairs in the field of digital arts and sciences. Research, communicate, and analyze the contemporary trends in digital arts and sciences.  
**Prereq:** DAR major and senior standing
- DIG 4940 Internship** **1-3 Credits**  
Internship encourages reflection on position, company, industry, and experience. After completing the assignments, students should be able to articulate the role internship had in their career development.  
**Prereq:** DAR major
- DIG 4970 Senior Project in DAS** **2-3 Credits**  
Successful completion of this capstone experience demonstrates mastery of requisite knowledge, technical acumen, and problem solving skills in the digital arts and sciences. May be either an individual or team-based project.  
**Prereq:** senior status enrolled in the BA in DAS program
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