

DIGITAL DESIGN (DD)

DD110 Game Design & Interactive Media 4 credits (3 lec, 2 lec lab hrs/wk)

This course introduces students to game and interactive media design fundamentals, including core gameplay mechanics, game physics, player engagement, and storytelling. Students will use Unity Editor, Photoshop, Illustrator, and Visual Studio to create 2D game assets, interactive experiences, and playable prototypes. Students will gain hands-on experience in level design, animation, UI/UX, and game balancing, while also exploring career opportunities in game development, interactive storytelling, and user experience (UX) design. By the end of the course, students will develop a playable 2D game prototype and a digital portfolio showcasing their game design work.

This course may be taken 1 time for credit.

Course classification: CTE

DD111 Interactive 3D Environments 3 credits (2 lec, 2 lec lab hrs/wk)

This course introduces students to Unreal Engine for game development, interactive experiences, and real-time rendering. Designed for those with prior Unity experience, it covers level design, Blueprints visual scripting, physics interactions, and rendering techniques. Students will develop a playable 3D game prototype while learning best practices for interactive environments. By the end of the course, they will navigate Unreal Engine's interface, create gameplay mechanics using Blueprints, and apply real-time rendering for high-quality visuals. This course is ideal for students interested in game design, 3D world-building, and interactive media production.

This course may be taken 1 time for credit.

Course classification: CTE

DD125 Digital Imaging & Graphic Design 3 credits (2 lec, 2 lec lab hrs/wk)

This foundational course provides students with essential skills in digital imaging, graphic design, and branding using Adobe Photoshop and Illustrator. The course covers photo editing, retouching, vector illustration, branding, layout design, and motion-ready graphics, with a strong emphasis on industry workflows and best practices. Students will develop professional-quality digital assets for branding, web, print, and motion graphics applications, ensuring they are job-ready for careers in graphic design, multimedia production, UI/UX, and digital marketing.

This course may be taken 1 time for credit.

Course classification: CTE

DD130 3d Modeling & Environment Design 3 credits (2 lec, 2 lec lab hrs/wk)

This course introduces students to 3D modeling for game environments, real-time applications, and virtual production, emphasizing game-ready asset creation, UV mapping, texturing, and optimization. Using Maya (or Blender), students will develop props, modular environments, and terrain assets while learning industry-standard workflows for integration into game engines like Unity. Students will focus on hard surface modeling, material creation, and environmental storytelling. By the end of the course, students will have a fully textured, optimized 3D environment asset for their professional portfolio.

This course may be taken 1 time for credit.

Course classification: CTE

DD135 3d Asset Creation 3 credits (2 lec, 2 lec lab hrs/wk)

This course introduces character design and 3D asset creation for games, animation, and interactive media. Students will develop original concepts, create 2D and 3D assets, and learn industry workflows using Photoshop, Maya, or Blender. Through hands-on projects, they will design compelling characters, model and texture game-ready assets, and apply efficient 2D-to-3D production techniques. By the end of the course, students will have portfolio-ready work prepared for Unity, Unreal Engine, and other game engines. Ideal for those interested in character art, concept design, and game asset creation, this course builds a strong foundation in digital art and interactive media.

This course may be taken 1 time for credit.

Course classification: CTE

DD160 Digital Design Orientation 3 credits (3 lec hrs/wk)

This course provides an essential foundation for students entering the Digital Design program, introducing them to the industry, tools, creative workflows, and professional expectations. Students will explore career paths in graphic design, interactive media, motion graphics, game design, extended reality (XR), and digital marketing while developing essential skills in file management, project organization, critique participation, and industry best practices. Students will gain hands-on experience with software navigation, digital asset organization, teamwork strategies, and creative problem-solving techniques. The course prepares students for collaborative projects, career readiness, and long-term professional growth. By the end, students will have built a personalized career roadmap, a creative mindset, and a foundational understanding of digital design tools and workflows.

This course may be taken 1 time for credit.

Course classification: CTE

DD165 Web & Interactive Media Design 3 credits (2 lec, 2 lec lab hrs/wk)

This course introduces students to modern web and interactive media design using HTML, CSS, JavaScript, and content management systems (CMS) such as WordPress and Webflow. Students will develop responsive, user-friendly websites and interactive digital experiences, incorporating UX/UI principles, motion design, and accessibility standards. By the end of this course, students will have built a portfolio-ready website that demonstrates their web development, interactive design, and digital content creation skills for careers in web design, UI/UX, front-end development, and digital marketing.

This course may be taken 1 time for credit.

Course classification: CTE

DD170 Programming For Digital Media 4 credits (3 lec, 2 lec lab hrs/wk)

This beginner-friendly programming course introduces fundamental coding concepts through C#, emphasizing applications in interactive media, generative art, and basic game mechanics. Students will write scripts for digital interactions, develop logic-based behaviors, and build simple interactive projects.

This course may be taken 1 time for credit.

Course classification: CTE

DD171 Coding For Games & Interactive Medi 3 credits (2 lec, 20 lec lab hrs/wk)

This course builds on Programming for Digital Media by applying C# programming to interactive experiences in Unity, with a focus on game development, augmented reality (AR), virtual reality (VR), and interactive media. Students will develop interactive applications, implement physics, animation, and user interaction in real-time 3D environments, and explore key game development concepts such as object management, AI, and UI design. The course also introduces AR/VR development frameworks, equipping students with the skills to create immersive digital experiences.

This course may be taken 1 time for credit.

Course classification: CTE

DD172 Coding 3d Motion & Automation 4 credits (3 lec, 2 lec lab hrs/wk)

This course introduces students to Python programming for 3D animation, automation, and creative coding in Autodesk Maya and Blender. Designed for beginners, it covers fundamental programming concepts while teaching students to write scripts that automate tasks, manipulate objects, and generate procedural motion. With a focus on practical industry applications, students will learn to streamline workflows, enhance creativity through coding, and develop small tools to improve efficiency in 3D production.

This course may be taken 1 time for credit.

Course classification: CTE

DD210 X R Design & Development 3 credits (2 lec, 2 lec lab hrs/wk)

This course provides an in-depth exploration of Extended Reality (XR), including Augmented Reality (AR), Virtual Reality (VR), and Mixed Reality (MR). Students will design, develop, and optimize immersive experiences using industry-standard tools such as Unity, Unreal Engine, WebXR, and Spark AR. Through hands-on projects, students will master 3D spatial design, user interactions, world-building, and optimization techniques while considering accessibility, usability, and ethical implications of immersive media. The course culminates in a functional XR prototype, demonstrating students' ability to create interactive, engaging, and optimized experiences for various XR platforms.

This course may be taken 1 time for credit.

Course classification: CTE

DD215 Real-Time Motion & Interactivity 3 credits (2 lec, 2 lec lab hrs/wk)

This course explores real-time motion graphics, procedural animation, and interactive media design for games, XR (AR/VR), and digital experiences. Students will learn real-time animation techniques, UI motion for games, and immersive storytelling, leveraging Unity, Unreal Engine, Blender, and After Effects. By the end of this course, students will be able to animate assets in a real-time engine, create interactive motion elements, and develop immersive experiences—preparing them for entry-level roles in game UI, XR motion design, and real-time VFX.

This course may be taken 1 time for credit.

Course classification: CTE

DD225 Motion Graphics & Visual Effects 3 credits (2 lec, 2 lec lab hrs/wk)

This course introduces students to the fundamentals of motion graphics, animation, and visual effects (VFX) using Adobe After Effects, Photoshop, and Illustrator. Students will learn key animation principles, kinetic typography, shape animations, motion tracking, green screen techniques, and visual effects for branding, marketing, UI/UX, and digital storytelling. By the end of the course, students will have a portfolio of animated assets showcasing their motion design, animation, and VFX skills for careers in motion graphics, UI/UX, video production, and digital marketing.

This course may be taken 1 time for credit.

Course classification: CTE

DD230 3d Animation & Motion 3 credits (2 lec, 2 lec lab hrs/wk)

This course introduces students to 3D animation for real-time applications in games and XR (Extended Reality), focusing on rigging, character animation, motion physics, and interactive movement. Students will use digital animation software to develop keyframe animations, looping cycles, and physics-based motion. By exploring rigging fundamentals, weight painting, and animation principles, students will gain hands-on experience creating animations that are responsive, expressive, and optimized for interactive applications. The course culminates in a final animated project that integrates character or object animations into a game/XR environment.

This course may be taken 1 time for credit.

Course classification: CTE

DD235PH Digital Design App: Photoshop 3 credits (3 lec hrs/wk)

Prerequisite(s): (CIS125PH)

This course offers students the opportunity to apply contemporary industry software and design principles to the planning, design, and development of digital design projects. Students will independently research and employ advanced solutions to meet design project challenges and refine their software skills in preparation for associated industry certification exams.

This course may be taken 1 time for credit.

Course classification: CTE

DD250 Projects in Digital Media 3 credits (2 lec, 3 lab hrs/wk)

Prerequisite(s): (CIS125DW and DD235PH)

This course serves as the culmination of a student's education in digital media, providing an opportunity to develop, refine, and present a professional-level interactive or digital media project. Students will apply industry-standard production workflows and project management skills to create work aligned with their career goals, including web design, UI/UX, game development, motion graphics, AR/VR applications, and digital marketing. Through an iterative design process, students will integrate user feedback, optimize their projects for usability, accessibility, and performance, and prepare a final presentation for professional critique. By the end of the course, students will have a portfolio-ready project that showcases their technical expertise, creative vision, and readiness for careers in interactive media, digital design, and technology industries.

This course may be taken 1 time for credit.

Course classification: CTE

DD280 CWE: Digital Design 1-12 credits (3 lab hrs/wk/cr)

Prerequisite(s): Instructor consent

Practical on-site experience that will allow student to test knowledge learned in the classroom and explore a variety of workplaces in which to apply that knowledge.

This course may be taken 12 times for credit.

Course classification: LDC

DD297 Digital Design Capstone 3 credits (2 lec, 3 lab hrs/wk)

Prerequisite(s): (CIS195 and DD250)

This course prepares students for the professional world by focusing on portfolio development, personal branding, and job-seeking strategies.

Students will refine their best work, build a compelling digital portfolio, and establish a strong online presence on platforms like LinkedIn,

Behance, and GitHub. They will craft industry-specific resumes, cover letters, and job applications while mastering interview techniques, networking, and negotiation skills. The course also explores freelancing, contract work, and alternative career paths in digital media. By the end, students will have an industry-ready portfolio and the tools to secure employment, freelance opportunities, or entrepreneurial ventures in digital design, game development, UI/UX, animation, web development, and multimedia production.

This course may be taken 1 time for credit.

Course classification: CTE