VISUAL EFFECTS (VFX)

VFX 200 | INTRODUCTION TO VISUAL EFFECTS | 4 quarter hours (Undergraduate)
Introduction to the use, history, and production methodologies of visual effects. Fundamental techniques will be explored through compositing exercises and projects. PREREQUISITES: NONE.

VFX 301 | VISUAL EFFECTS FOR EDITING | 4 quarter hours (Undergraduate)
This course integrates principal visual effects tools into post-production editorial workflows. Emphasis on efficient image manipulation and basic compositing practices. PREREQUISITE(S): VFX 200.

VFX 305 | VISUAL EFFECTS PIPELINES WORKSHOP | 2 quarter hours (Undergraduate)
This workshop is a comprehensive survey of the creative and technical pipelines used for the production of visual effects. Emphasis is placed on how images, CG assets, and data are created and flow though production departments from acquisition though final imagery.

VFX 310 | GAME ENGINES FOR FILMMAKERS | 4 quarter hours (Undergraduate)
This course focuses on teaching both filmmakers and artists the fundamentals of a game engine. Topics include how to develop or import materials, environment pieces, animations, as well as creating lighting, post processing and cinematics. Emphasis will be placed on creating 3D set pieces and cinematic sequences. No previous experience with 3D is required.

VFX 320 | FUNDAMENTALS OF VIRTUAL PRODUCTION | 4 quarter hours (Undergraduate)
This course is an introduction to the creation of in-camera visual effects on a virtual production stage. Topics include volume setup, camera tracking, virtual environment operation, screen management, and filming procedures.
FILM 110 or ANI 156 or GAM 180 or VFX 310 is a prerequiste for this class.

VFX 322 | VIRTUAL ENVIRONMENTS FOR VIRTUAL PRODUCTION | 4 quarter hours
(Undergraduate)
This course focuses on creating real-time environments for live action production on a virtual production stage using a game engine. Emphasis is placed on design, lighting, tool setup, physical set integration, and performance optimization.
ANI 339 and VFX 320 are prerequisites for this class.

VFX 324 | PRODUCTION DESIGN FOR VIRTUAL PRODUCTION | 4 quarter hours
(Undergraduate)
This course focuses on design and creation of physical sets and props for use in conjunction with virtual assets on a virtual production stage. Emphasis is placed on design, environment scanning, 3D printing, and virtual set integration.
FILM 270 and VFX 320 are prerequisites for this class.

VFX 326 | LIGHTING FOR VIRTUAL PRODUCTION | 4 quarter hours (Undergraduate)
This course focuses on the integration of physical and virtual lighting on a LED stage for virtual production. Emphasis is placed on design, interactive lighting programming & protocols, screen color management, and virtual lighting adjustments.
FILM 150 OR FILM 250 and VFX 320 are prerequisites for this class.

VFX 328 | VIRTUAL PRODUCTION STUDIO | 4 quarter hours (Undergraduate)
This project-based course is intended to provide practical experience in filming sequences using virtual production stages. Students with skills in virtual volume design, filming, and production design will collaborate on sequences for in-camera visual effects. The projects will provide opportunities to create quality materials to include in a demo reel or portfolio.
VFX 322 or VFX 324 or VFX 326 is a prerequisite for this class.

VFX 330 | VISUAL EFFECTS SUPERVISION | 4 quarter hours (Undergraduate)
This course examines production from the perspective of the visual effects supervisor. The visual effects supervisor is the creative and technical director overseeing all aspects of the visual effects creation. Emphasis is placed on sequence design, on-set photography and data collection, as well as production management.
FILM 110 and POST 110 are prerequisites for this class.

VFX 334 | VIRTUAL CINEMATOGRAPHY | 4 quarter hours (Undergraduate)
This course introduces real world cinematic techniques within a computer graphics environment. Emphasis is placed on camera movement, composition, pacing, lighting, and aesthetics.
ANI 230 or ANI 360 or VFX 310 is a prerequisite for this class.

VFX 340 | AI TOOLS FOR VISUAL EFFECTS AND POST-PRODUCTION | 4 quarter hours
(Undergraduate)
This course explores the creative, technical, and ethical applications of generative AI tools in visual effects and post-production. Students will develop practical skills in prompt design, multimodal asset generation, iterative refinement, cohesive worldbuilding, and pipeline integration, while critically assessing the ethical implications of generative AI.
POST 110 is a prerequisite for this class.

VFX 374 | COMPOSITING I | 4 quarter hours
(Undergraduate)
Compositing is the art and science of manipulating the content of photographic images. This project-based course builds the core tool set for compositing live-action filmed footage. PREREQUISITE(S): VFX 200 or ANI 105 or GD 105 or DC 225.

VFX 378 | COMPOSITING II | 4 quarter hours
(Undergraduate)
This course expands compositing workflows into three dimensional space for set extensions and compositing with complex camera movement. Emphasis on camera tracking, projections, camera stitching, morphing, and advanced compositing techniques.
VFX 374 is a prerequisite for this class.

VFX 380 | CG COMPOSITING | 4 quarter hours
(Undergraduate)
This course introduces advanced concepts in compositing utilizing computer generated and filmed assets. Workflows will be explored employing matchmoving, realistic CG lighting, render passes, and multi-pass compositing techniques.
VFX 374 and ANI 339 are prerequisites for this class.

VFX 382 | FLAME WORKSHOP | 2-2.5 quarter hours
(Undergraduate)
This course provides an advanced workshop for students to learn how to finish media using Autodesk Flame. Students will learn how to set up a project, composite, color correct, and finish shots for distribution. Post-production workflow, visual effects, and integration with editorial will also be emphasized.

VFX 390 | ADVANCED TOPICS IN VISUAL EFFECTS | 4 quarter hours (Undergraduate)
Advanced study in visual effects focusing on a specific area each quarter such as: virtual reality, stereoscopic compositing, visual effects supervising, visual effects producing, optical effects, etc. May be repeated for credit.

VFX 391 | VISUAL EFFECTS STUDIO | 4 quarter hours (Undergraduate)
This course provides practical experience in visual effects. Participants will apply learned techniques in a real-world experience serving as visual effects artists for various projects that may include thesis, capstone and other student work. A key element of this course will be in-class reviews and critiques of students' work in progress to sharpen technical, collaborative, and storytelling skills.
VFX 478 or VFX 380 is a prerequiste for this class.

VFX 399 | INDEPENDENT STUDY | 1-8 quarter hours (Undergraduate)
Variable credit. PREREQUISITE(S): Consent of dean.

VFX 405 | VISUAL EFFECTS PIPELINES WORKSHOP | 2 quarter hours (Graduate)
This workshop is a comprehensive survey of the creative and technical pipelines used for the production of visual effects. Emphasis is placed on how images, CG assets, and data are created and flow though production departments from acquisition though final imagery.

VFX 410 | GAME ENGINES FOR FILMMAKERS | 4 quarter hours (Graduate)
This course focuses on teaching both filmmakers and artists the fundamentals of a game engine. Topics include how to develop or import materials, environment pieces, animations, as well as creating lighting, post processing and cinematics. Emphasis will be placed on creating 3D set pieces and cinematic sequences. No previous experience with 3D is required.

VFX 420 | FUNDAMENTALS OF VIRTUAL PRODUCTION | 4 quarter hours (Graduate)
This course is an introduction to the creation of in-camera visual effects on a virtual production stage. Topics include volume setup, camera tracking, virtual environment operation, screen management, and filming procedures.
FILM 401 or FILM 410 is a prerequisite for this class.

VFX 422 | VIRTUAL ENVIRONMENTS FOR VIRTUAL PRODUCTION | 4 quarter hours (Graduate)
This course focuses on creating real-time environments for live action production on a virtual production stage using a game engine. Emphasis is placed on design, lighting, tool setup, physical set integration, and performance optimization.
ANI 439 and VFX 420 are prerequisities for this class.

VFX 426 | LIGHTING FOR VIRTUAL PRODUCTION | 4 quarter hours (Graduate)
This course focuses on the integration of physical and virtual lighting on a LED stage for virtual production. Emphasis is placed on design, interactive lighting programming and protocols, screen color management, and virtual lighting adjustments.
FILM 450 and VFX 420 are prerequisites for this class.

VFX 428 | VIRTUAL PRODUCTION STUDIO | 4 quarter hours (Graduate)
This project-based course is intended to provide practical experience in filming sequences using virtual production stages. Students with skills in virtual volume design, filming, and production design will collaborate on sequences for in-camera visual effects. The projects will provide opportunities to create quality materials to include in a demo reel or portfolio.
VFX 422 or VFX 426 is a prerequisite for this class.

VFX 430 | VISUAL EFFECTS SUPERVISION | 4 quarter hours (Graduate)
This course examines production from the perspective of the visual effects supervisor. The visual effects supervisor is the creative and technical director overseeing all aspects of visual effects creation. Emphasis is placed on sequence design, on-set photography and data collection, as well as production management.
(POST 400 or POST 401) and FILM 401

VFX 434 | VIRTUAL CINEMATOGRAPHY | 4 quarter hours (Graduate)
This course introduces real world cinematic techniques within a computer graphics environment. Emphasis is placed on camera movement, composition, pacing, lighting, and aesthetics.
ANI 423 or ANI 463 or VFX 410 is a prerequisite for this class.

VFX 440 | AI TOOLS FOR VISUAL EFFECTS AND POST-PRODUCTION | 4 quarter hours (Graduate)
This course investigates the advanced creative, technical, and ethical applications of generative AI in visual effects and post-production. Students will engage generative AI not merely as a set of tools, but as a methodological framework that reshapes authorship, aesthetics, production workflows, and industry labor structures. Through research-driven experimentation, students will develop skills in advanced prompt engineering, multimodal asset generation, iterative model refinement, cohesive worldbuilding, and the integration of AI systems into professional production pipelines.
POST 400 or POST 401 is a prerequiste for this class.

VFX 474 | COMPOSITING I | 4 quarter hours (Graduate)
Compositing is the art and science of manipulating the content of photographic images. This project-based course builds the core tool set for compositing live-action filmed footage. Students will be introduced to design, supervision and production of a visual effects project.
POST 400 or POST 401 or ANI 423 is a prerequisite for this course.

VFX 478 | COMPOSITING II | 4 quarter hours (Graduate)
This course expands compositing workflows into three dimensional space for set extensions and compositing with complex camera movement. Emphasis on camera tracking, projections, camera stitching, morphing, and advanced compositing techniques.
VFX 474 is a prerequisite for this class.

VFX 480 | CG COMPOSITING | 4 quarter hours (Graduate)
This course introduces advanced concepts in compositing utilizing computer generated and filmed assets. Workflows will be explored employing matchmoving, realistic CG lighting, render passes, and multi-pass compositing techniques. PREREQUISITE(S): VFX 474 and ANI 439.

VFX 482 | FLAME WORKSHOP | 2-2.5 quarter hours
(Graduate)
This course provides an advanced workshop for students to learn how to finish media using Autodesk Flame. Students will learn how to set up a project, composite, color correct, and finish shots for distribution. Post-production workflow, visual effects, and integration with editorial will also be emphasized.

VFX 490 | ADVANCED TOPICS IN VISUAL EFFECTS | 4 quarter hours
(Graduate)
Advanced study in visual effects focusing on a specific area each quarter such as: virtual reality, stereoscopic compositing, visual effects supervising, visual effects producing, optical effects, etc. May be repeated for credit.

VFX 491 | VISUAL EFFECTS STUDIO | 4 quarter hours
(Graduate)
This course provides practical experience in visual effects. Participants will apply learned techniques in a real-world experience serving as visual effects artists for various projects that may include thesis, capstone and other student work. A key element of this course will be in-class reviews and critiques of students' work in progress to sharpen technical, collaborative, and storytelling skills.
VFX 478 or VFX 480 is a prerequiste for this class.

VFX 599 | INDEPENDENT STUDY | 1-8 quarter hours
(Graduate)
Independent study form required. PREREQUISITE(S): Consent of instructor. (variable credit)