

FILM1600 Animation: Then | Now | Next

Online Class Lectures and Online Final Exam

- Videos, Lecture, Demo
- All readings and videos are provided through CANVAS.
- Weekly quizzes are the source of questions for the Final.
- [Link to Sample Class](#)



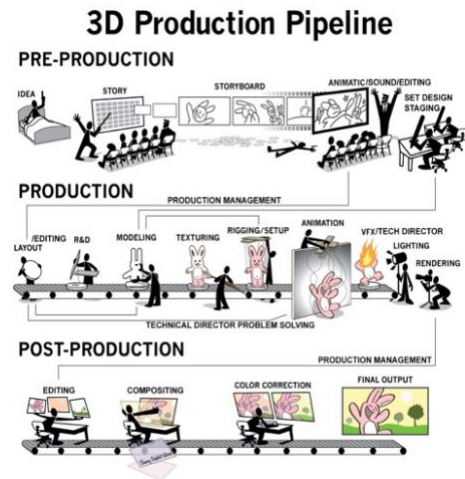
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Course Description

Introduction to the continuing evolution of animation. The course investigates not only the creative and technological innovations that expand cinematic storytelling (Mickey Mouse to VFX, Simpsons to Anime, Games to VR)

This is a lower-division course designed for the non-major and major. This is not a history course but utilizes history, contemporary animations, and innovations in technology to reveal how animation has evolved and is changing the future of digital media (Video Games, VR).



Course Objectives

Animation techniques has evolved from simple cartoon drawings to 3D VFX. Today this evolution continues as it is rapidly being integrated into VR. From the beginning, each new technological innovation in animation extended the creative possibilities for storytelling (animation was the first to use color film, sound etc.). This course reveals what goes on behind the scenes of the animation industry and the similarities of that process to other disciplines.

Animation previously was the domain of large studios with an army of artists; today we have access to more power on home computers than was used to make *Jurassic World*. This class will demystify the process so students to understand the creative and technical priorities behind the work, how to utilize animation in their own future presentations, or even the option to begin animating on their own.

Course Methodology

Fundamental concepts and components of animation will be covered in lectures, clips of animation examples, viewings, and a discussion. A series of presentations, demonstrations will explain how animation is created and how the animation pipeline for brings all the parts together. CANVAS contains the full syllabus, articles and references for this course. CANVAS links with readings, animation clips, lectures, discussion, quizzes and final.

Instructor Bio

Craig Caldwell, USTAR Professor, Digital Media Cluster, University of Utah. Co-founder of the UofU Masters in Games Program Entertainment Arts & Engineering. Industry experience: Head of Creative Training at Electronic Arts, Tiburon Studio, Orlando, FL, and 3D Technology Specialist, Walt Disney Feature Animation (*Mulan, Tarzan, Chicken Little, Bolt, Meet the Robinsons*), Burbank, CA. Academic background includes Head of the largest Film School in Australia at Griffith University. The Griffith Film School is known for its interdisciplinary program in Film, Animation, and Games. Previously was Chair of the Media Arts Department at University of Arizona and Associate Director, New Media Center. Conference presentations include Comic Con '18, SXSW '18, Mundos Digitales '13-'18, SIGGRAPH-Asia '14-'16, SIGGRAPH '14, '16, '18, FMX '13-'18, GAFX '17 (Bengaluru), Kre8tif! '17 (Kuala Lumpur, Malaysia), and IS3 '17 (Seoul, Korea). He has presented his story workshop at Electronic Arts Studio, Salt Lake City, and Disney Interactive Studio. His book *Story Structure and Development – A Guide for Animators, VFX Artists, Game Designers, and Virtual Reality*; published 2017, CRC Publishers.

Course Organization – weekly modules

Module 1

General introduction - What is Animation; technically, culturally, historically, artistically?

- ✓ Content draft: Directors: Chuck Jones, Walt Disney, Clips from WB Studio, Disney Studio, Pixar Studio. Readings – “The Future of Character Animation” by Frank Thomas

Module 2

Introduction to the Animation Process. Drawing versus 3D Modeling, Timing - Keyframes versus Dynamics... How has the process changed and what are the tradeoffs between techniques in the Animation Process?

- ✓ Early Animation before Disney, Disney in the 30s and 40s, WB animation, TV Animation in the 50s and 60s, Pixar, DreamWorks. Reading TBD

Module 3

The Performance of Animation (Principles: Timing versus Posing) - What makes animation convincing? The audience knows it's not real but when done right we go along for the ride. For example, *timing* is critical, it determines the weight, size, and speed of an object while the pose of the human body communicates a character's emotional state: this is fundamental.

- ✓ Content: Screenings - Luxo Jr., Rabbit Seasoning (directed by Chuck Jones), etc.

Module 4

Skills of an Animator: (1) Story teller, (2) Graphic artist, (3) Cinematographer (composition and staging), (4) Acting.

- ✓ Content draft: *Hold the Lion, Please* (Bugs, Lion/WB), *My Favorite Duck* (Porky/Daffy/WB), *Toy Story* (Disney/Pixar). Reading – “Acting for Animators”

Module 5

Story - It's all about story. What it always has been and always will be about. What are the most primary, elemental aspects of engaging an audience with story-telling? Story principles: Basic ideas. Finding stories. Testing stories. Story structure. Formulas to test; Field, McKee, *Save the Cat*, etc.

- ✓ Content Draft: Screenings - Readings TBD

Module 6

Film Structure in Animation: Discussion of staging, composition, rhythm, and continuity. This information is fundamental to the storyboarding process in animation. Storyboarding is a means of telling story, visually.

- ✓ Content draft - *Three Little Pigs, Incredibles, Up, Bambi, Cinderella, The Little Whirlwind* (Mickey/Disney), *Out-Foxed* (Droopy/MGM)

Module 7

Visual Concept Development (Pre-Production) Influence of Art and Theatre (i.e. Lighting, Color, Shading...) Most animation starts with concept art that is based on influences from either the cultural themes within the subject or traditional art styles that shapes the genre and final look of the film.

Module 8

Types and Techniques: Each technique lends itself to certain storytelling concepts: TV animation is primarily a verbal/oral storytelling format that permits outrageous scenarios while feature animation lends itself to more visual stories that permit deeper exploration of character and story. 2D Animation, Motion Graphics, Stop Motion

Module 9

Animation Genres and Studio Styles - Anime, Nickelodeon, Disney, WB, APA, Eastern Europe etc. Each culture selects animation styles that best suit their ideas they best embody their values.

- ✓ Content Draft: Screenings: Early Animation Techniques, Disney Full Style, Limited Style (Hanna Barbera) Anime Graphic Style, *Akira, Spirited Away, Ghost in the Shell, Princess Mononoke, Perfect Blue, My Neighbor Totoro, Metropolis*, etc.

Module 10

Sound in Animation: Dialogue, Sound Effects, and Music: Each component brings a different added layer of information that enhances the experience. Music shapes the emotion and mood. There are 3 sources: sound effects, music, and dialogue (spoken language).

Module 11

VFX (Visual Effects) and Compositing: Post-Production/VFX expands story possibilities.

- ✓ Content draft: Screen samples: *Batman, Spiderman, Mummy, Men in Black, Jurassic Park*, Clips from films on how compositing is achieved and the creative purposes to which it has been used:

Module 12

Scientific Visualization (visualization or simulation of 3D phenomena, such as architectural, meteorological, medical, or biological systems) requires the creative insights of perception to clearly communicate.

- ✓ Content draft: Screenings: Siggraph visualizations.

Module 13

Games and Real-Time Technology - What are the basic technologies of real-time imagery, and how are they evolving? Using gaming assets and technology for "machinima" productions: Exactly how big is the game industry? How is this industry changing? What's it like to work in a game studio?

Module 14

The Industry: then and now. The studios; who's making animation and VFX? The production companies: large and small; Worldwide production; ready to travel?; Academia - it's role, future, impact; The professional organizations: Visual Effects Society, ASIFA-Hollywood, SIGGRAPH, etc.; Marketing, Distribution, Agents, and hucksters.