

Week 2 **Lecture Outline**

- I. Animation - the creation of an illusion of movement by assembling a sequence of still images.
 - A. The quality of the sequence is more important than the quality of the individual images.
 - B. Animation consists of imagining and representing action.
 - C. Animation is drawing movement. - Norman McLaren

- II. The Mechanics of Animation
 - A. Persistence of Vision
 1. A physiological characteristic, resulting in a slight after image left on the retina when the human eye is stimulated.
 2. Roughly 1/12th of a second for a bright light source.
 3. This characteristic allows the eye to see 24 individual frames per second as if they were continuous motion.
 - B. Frame Rate
 1. Video - NTSC
 - a. 30 frames per second
 - b. 2 interlaced fields per frame
 - c. Interlacing of two video fields per second allow for seamless flipping between each frame.
 - d. Also causes motion to be more smooth across frames.
 2. Motion Picture
 - a. 24 frames per second.
 - b. Projector shutter hides the change between frames.
 - c. The shutter speed and the frame rate are longer then the refresh rate of the retina.

- III. The Animation Production Process
 - A. Pre-production
 1. The Idea - Treatment
 2. Budgeting and Scheduling
 3. The Script
 4. The Storyboards
 - a. Preparation
 - b. Presentation
 5. Production Designing
 - a. Character Design
 - b. Modeling
 - c. Set Construction
 - B. Production
 1. Casting
 2. Sound Production
 - a. Dialog Recording
 - b. Sound Effects Recording
 - c. Dialog Editing
 - d. Track Reading
 - e. Dope Sheet Preparation
 3. Animation Production
 - a. Story Reel
 - b. Animatics
 - c. Extreme Animations
 - d. Refinement
 4. Shading and Texturing
 5. Lighting

Week 2

Lecture Outline

- C. Post-production
 - 1. Rendering
 - 2. Picture Editing
 - 3. Sound Mixing

IV. Alias Interface

- A. The Time Slider - a time based control window that lets you setup and playback animation.
 - 1. Frame Range - Determines the range of frames for an animation.
 - a. Start/End setting determines the absolute length of the animation.
 - b. Min/Max playback animation that fall between the first and last keyframes.
 - 2. Playback Controls - let you preview animation in the modeling windows.
 - a. Current Frame Indicator - shows the current frame, can also be used to go to a frame by inputting a frame number.
 - b. VCR-like controls - allow for jumping to the start or end of the time slider, or stepping from frame to frame, and playing forward and backward.
 - c. Frames per second indicator - informs you of how many fps you are getting during playback.
 - 3. Slider - Gives you a means of dragging a handle through the frame range to preview motion interactively.
- B. Parameter Control Window - is used to determine which parameters of an object, light, or shader are animated.
 - 1. Global - under which can be found all active objects that are animatable.
 - a. Apply - applies all global parameters to local parameters on all active animatable objects.
 - 2. Local - under which can be found all active objects that are animatable.
- C. Action Window - a graphical description of your animation.
 - 1. Charts animated parameters over time.
 - 2. Used to apply and edit keyframes to parameters
 - 3. Used to change Tangent Types of action curves.