

## **COURSE DESCRIPTION**

*Animation Appreciation* is a show and tell introductory course on computer animation. The various stages of the animation process will be discussed, and all terminology will be defined.

### **1. The Process /Yaeger**

A general overview of the entire computer graphics animation process, from creative concept to finished film or tape, will be described. The speaker will show examples of the development process and intermediate steps using recent commercial and feature film footage.

### **2. How to Build and Render Objects and Scenes /Joblove, Kay**

How are scenes described to a computer? How are scenes represented inside a computer? How are images of a scene created? The speaker will describe the modeling process, from the various types of geometries one can use to define object shapes, to surface characteristics, lighting and view angles.

Once objects and scenes are described, they need to be rendered, or colored, realistically. The speaker will describe vector and raster rendering techniques, as well as anti-aliasing, ray tracing, motion blur and texture mapping.

### **3. Animating Objects and Scenes /Entis**

Mathematically, motion defines the location of objects or object parts at points in time. One can move objects through space, or one can move object color, light sources or surface properties to produce special effects. The speaker will show what effects can be achieved when various motion techniques are used, as well as discuss various techniques for specifying motion, including scripting languages, interactive input and AI techniques.

### **4. Computer Graphics Animation for Science and Education /Rueff**

For nearly ten years the Jet Propulsion Laboratory Computer Graphics Lab has been devoted to developing new ways to look at our scientific knowledge of space, physics, mathematics and biology. Using computers to represent accurate models can be difficult at times, but images of otherwise unviewable realities carry with them a special energy. This speaker will present the extent of JPL's computer graphics work in science education.

**5. Selling Computer Graphics to the Film Industry /Kleiser**

In commercial animation applications, someone works with both the film production house and the computer animation company. How do you sell computer animation to the film industry? How do you decide when to use computer graphics and when to use traditional special effects? How do you decide what machines are best for what effects? How do you get the most bang for the buck? This speaker will draw on his experience with commercials and feature films to explain how to stick with time constraints and budgets, and instill confidence in computer graphics to solve effects problems.

**6. So, you want to do computer graphics? /Herr**

Herr will survey commercially available hardware, software and systems for doing computer graphics animation. Attendees get an excellent overview of the costs associated with doing in-house animation, and get a preview of the equipment that will be available on the ACM SIGGRAPH '87 exhibit floor.