

## Computer Graphics 2016: Building an animation production course for university animation students- Sean McComber - University of Texas

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Preparing students for careers in the animation industry can be a challenge. Over the past three years, we have developed an Animation Production Studio course in which we strive to mimic a studio production environment. In this course, students have the opportunity to drive the entire production pipeline including story development, layout, modeling, texturing, rigging, animation, lighting, rendering/compositing, and sound design, as well as project planning and management. Students work in a collaborative environment and develop skills with specific production tasks in addition to gaining critical experience in working as part of a large, multi-disciplinary team with definite production goals and deadlines. The problem solving and time management skills developed in this course help prepare our students not only for the film and game industries, but also for the myriad new and emerging areas of animation and visualization. This lecture will discuss the structure of the course, what has and has not worked over the past three years, and how the evolution of this course has helped to prepare students for work after college, drive the growth and direction of the ATEC animation program, and create several award winning short films. Planning understudies for vocations in the liveliness business can be a test. In the course of recent years, we have built up an Animation Production Studio course in which we endeavor to copy a studio creation condition. In this course, understudies have the chance to drive the whole creation pipeline including story improvement, format, displaying, finishing, fixing, activity, lighting, rendering/compositing, and sound structure, just as task arranging and the board. Understudies work in a community situation and create abilities with explicit creation undertakings notwithstanding increasing basic involvement with filling in as a major aspect of a huge, multi-disciplinary group with unmistakable creation objectives and cutoff times. The critical thinking and time the executives aptitudes created in this course help set up our understudies for the film and game ventures, yet in addition for the heap new and rising regions of liveliness and perception. This talk will examine the structure of the course, what has and has not worked in

the course of recent years, and how the development of this course has assisted with getting ready understudies for work after school, drive the development and heading of the ATEC movement program, and make a few honor winning short movies. Activity is a strategy wherein figures are controlled to show up as moving pictures. In customary activity, pictures are drawn or painted by hand on straightforward celluloid sheets to be shot and shown on film. Today, most movements are made with PC created symbolism (CGI). PC activity can be extremely itemized 3D movement, while 2D PC liveliness can be utilized for elaborate reasons, low data transfer capacity or quicker constant renderings. Other regular movement strategies apply a stop movement method to two and three-dimensional articles like paper patterns, manikins or dirt figures. Generally the impact of movement is accomplished by a quick progression of successive pictures that negligibly vary from one another. The hallucination—as in movies when all is said in done—is thought to depend on the phi wonder and beta development, however the specific causes are as yet unsure. Simple mechanical liveliness media that depend on the quick presentation of successive pictures incorporate the phénakistiscope, zoetrope, flip book, praxinoscope and film. TV and video are mainstream electronic activity media that initially were simple and now work carefully. For show on the PC, methods like energized GIF and Flash liveliness were created. Movement is more inescapable than numerous individuals figure it out. Aside from short movies, include films, TV arrangement, vivified GIF's and other media committed to the showcase of moving pictures, liveliness is likewise pervasive in computer games, movement designs, UIs and enhanced visualizations. The physical development of picture parts through basic mechanics – in for example moving pictures in enchantment lamp appears – can likewise be viewed as activity. The mechanical control of three-dimensional manikins and articles to imitate living creatures has an exceptionally long history in automata. Electronic automata were promoted by Disney as animatronics.

## Biography

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Sean McComber is an Assistant Professor of Animation in Arts and Technology (ATEC) at the University of Texas at Dallas. He graduated from Savannah College of Art and Design with a BFA in Computer Art with an emphasis in Animation and received his MFA in ATEC from UTD. After graduating, he was accepted into the Internship Program at Rhythm & Hues Studios, a visual effects production company for film. He rose from Intern to Lead Animator and eventually traveled to Rhythm & Hues' Mumbai, India, facility as Supervising Animator. He is currently teaching classes in Character Animation. Eric Farrar is an Assistant Professor of 3D Computer Animation in Arts and Technology (ATEC). He graduated from The Ohio State University where he completed an MFA in Computer Animation and Visualization working through the Advanced Computing Center for Art and Design (ACCAD). He then went to work for the Los Angeles based visual-effects studio, Rhythm & Hues where he worked as a Character Rigger creating bone and muscle systems for digital characters for films such as *Night at the Museum* and *The Chronicles of Narnia: The Lion, Witch and the Wardrobe*. He is currently teaching classes in 3D animation including courses specifically focused on the more technical side of character rigging. Todd Fechter is an Associate Professor of Animation and current Interim Director of the school of Arts, Technology and Emerging Communication. He graduated with an MFA in Computer Animation and Visualization from The Ohio State University in 2002. He has worked in and around the animation industry for the past thirteen years, having worked as a Modeler, Rigger, and Modeling Supervisor for studios including DNA Productions and Reel FX. He currently teaches courses in modeling and pre-production. Kyoung Lee Swearingen is an Assistant Professor of Animation in Arts and Technology (ATEC) at the University of Texas at Dallas and has worked in the film industry for the last decade on a variety of features and shorts including *Ratatouille*, *Walle*, *UP*, *Cars 2*, *Toy Story 3*, *Brave*, *Monsters University*, *Presto*, *La Luna*, *The Blue Umbrella*, *Mater's Tall Tales*, *Partly Cloudy*, *Ant Bully*, and the *Jimmy Neutron* TV series as a Technical Director of Lighting at Pixar Animation Studios. Her work has claimed numerous awards from the Academy Awards, BAFTA, Visual Effects Society, The American Film Institute, as well as many others.