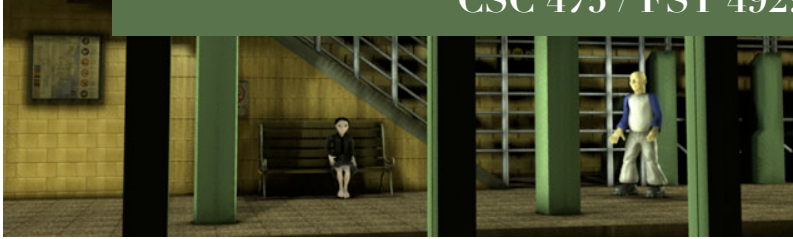


CSC 475 / FST 492: Digital Special Effects



2:00-3:15 p.m.
Mondays and Wednesdays
CIS 1018 (Digital Arts Lab)

Eric Patterson, Ph.D.

<http://people.uncw.edu/patterson/e/dsfx>

BR 114, Office Hours 10:00-11:00 a.m. MWF, 3:15-4:30 p.m. MW, or by appointment.

(910) 962-7701

patterson@uncw.edu

Course Description:

Interdisciplinary class covers aspects of manipulating digital imagery and video for special effects. Student teams of computer-science and film-studies majors will work together to learn and apply theoretical and practical issues. Topics include image and video representation, digital workflow, lighting, rendering, compositing mixed environments (live and CG), morphing, particle effects, dynamics, camera properties, match-moving, filters, and virtual cinematography. Film-studies majors concentrate on planning, story-boarding, and producing short movies that apply special effects, while computer-science students focus on programming and technical implementation issues of special effects.
(Prerequisites for CSC: 121, 220 / Prerequisites for FST: 201, 220)

Required Texts:

Learning Maya: The Special Effects Handbook by Doug Walker.

The Art and Science of Digital Compositing by Ron Brinkmann.

Optional:

Matchmoving: The Invisible Art of Camera Tracking by Tim Dobbert.

Reference:

Creating Motion Graphics with After Effects by Trish and Chris Meyer.

Digital Image Warping by George Wolberg.

Adobe Photoshop for VFX Artists by Lopsie Schwartz.

Cinefex (Journal for Visual Effects in Film).

Maya Resources housed in the Randall Library, including:

The Art of Maya

Maya Cloth Courseware

MEL Fundamentals Courseware

Learning Maya: Dynamics

Learning Maya: Rendering

Maya Techniques: Patch Modeling for Visual Effects

Maya Techniques: Rendering 2D Effects in a 3D Environment

Maya Techniques: Particles for Visual Effects

Maya Techniques: Understanding Maya Shading Networks

Maya Techniques: Exploring Advanced Shading Networks

Maya Techniques: MELBot Wars: Virtual Fighting Robots

Maya Techniques: RigidBody Simulations for Visual Effects

Maya Techniques: Polygon Texturing, Lighting, and Shading

Maya Techniques: Inside the Maya Architecture

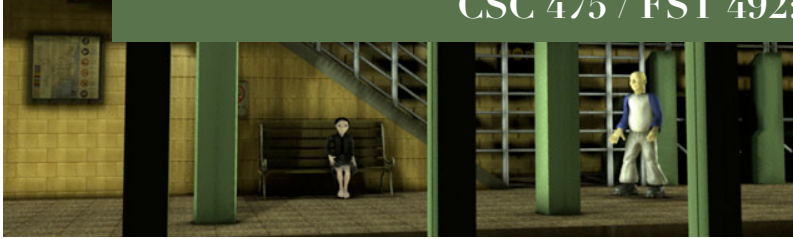
Software:

Maya, After Effects, Shake, Final Cut Pro, Photoshop-- installed on computers in BR 202.

MEL, PERL, Visual Studio (C++), Apple FXScript, Adobe After Effects SDK.

Tentative Grades:

Project 1: Basic 2-D compositing.	5%
Project 2: Match-moving and 3-D compositing.	15%
Project 3: Programmed effect of choice.	15%
Project 4: Final project chosen with instructor approval.	20%
Homework including exercises, screenings, and papers.	20%
Quizzes based on readings and class material.	20%
Class participation, discussion, and presentations.	5%



Tentative Project Description Summaries:

1. Still photo and CG elements are composited to create informative or entertaining compositions.
2. Using match-moving and HDRI rendering, 3-D CG elements and live video plates are composited to create a short movie.
3. Project involves use of a chosen effect, implemented by group using MEL, FXScript, AfterEffects SDK, etc. Examples include particle effects, crowds, morphing, etc.
4. Teams complete short narrative films that incorporate digital special effects crucial for the story. Films are scripted, story-boarded, produced, and edited with effects in mind. Effects will be completed from a variety of methods covered in the course. Proposals must be submitted and approved for final projects.

**CSC majors will implement advanced image and video manipulation and/or manipulation of 3-D elements using MEL, FXScript, the After Effects SDK, or other programming language.*

**FST majors will follow production principles to plan, storyboard, produce, photograph, model, animate, and edit film or video associated with projects.*

Class Policies

Quizzes will cover materials presented in class, whether lecture, video, tutorial, etc., as well as material from the required texts. Quizzes may include written questions and/or practicum.

3-D graphics work is very time-consuming. Plan carefully to complete projects in a timely manner. Late work will be reduced in grade by 5 points each day. There are no make-up quizzes. Please contact me in advance, if possible, if you must miss any graded work.

Attendance is required and will both directly and indirectly affect grades -- covered material is very pertinent to completing homework and projects effectively. Unless special circumstances are involved, more than three absences will result in class failure. Students are individually responsible for keeping current with course material and assignments.

Class announcements supersede posted material.

Academic honesty in all your work is required for a passing grade.

This syllabus may be subject to change with reasonable notice.