

## Hanyang University • Course Syllabus

**Course Title:** Motion Graphics 1  
**Department:** Interactive & Multimedia Design  
**Term:** Spring/2012  
**Course Credits:** 3  
**Level:** Undergraduate  
**Professor:** Don Ritter  
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**Office Location:** 3<sup>rd</sup> floor of Design building  
**Syllabus Version:** 2012.5.2

*This document and all support documentation is online at <http://aesthetic-machinery.com/classes.html>*

### Course Description

This class is an introduction to the creation of motion graphics using digital video, computer graphic and digital photo technologies. The course will discuss cinematic, video, photo and computer technologies, and how they are used in the creation of motion graphics. The class is primarily a project-based class. Students are required to create 3 motion graphic assignments.

### Goals of the Course

Students will learn and have experience with the major aspects of creating full screen motion graphics.

### Course Requirements

1. Assignments: Students will complete three assignments over the semester. Descriptions of assignments are provided within this document. All assignments must be submitted on a USB stick on the due date. The percentage following the assignment name indicates a project's contribution to your final grade:

- Assignment 1: Animated Graphics and Text (30%)
- Assignment 2: Video Layering, Masks, and Keying (30%)
- Assignment 3: Video and Graphics (40%)

2. INDIVIDUAL REVIEW OF STUDENT ASSIGNMENTS: one week prior to due dates for assignments, students must present their work to date. This review will contribute 10% towards the grade of an assignment.

3. ATTENDANCE: students are required to attend every class. 5% will be deducted from a student's final grade for every class that is missed without an appropriate excuse. 5% of the final grade will be deducted from arriving late to class more than 3 times.

4. GRADING of ASSIGNMENTS: marking of individual assignments will be determined according to the following:

- individual review:* grade assigned 1 week prior to due date (10%)
- use of materials:* using the hardware and software in a competent manner(30%)
- addressing objectives:* incorporating a assignment's objectives (30%)
- creativity:* creating a unique solution to a assignment's objectives(30%)

5. SUBMISSION OF PROJECTS: all projects(1, 2 and 3) must be uploaded to <http://vimeo.com>  
After you project is uploaded, send the url link with your name to dr@amachinery.net

6. LATE ASSIGNMENTS: assignments: 10% will be deducted from an assignment for each week it is submitted late. Assignments late by more than 2 weeks will not be accepted.

**MATERIALS:** bring your project files to every class.

**NOTES:** Notes on various topics related to motion graphics will be distributed throughout the semester on as pdf files.

## **TOPICS COVERED IN THE CLASS**

animated properties: position, scale orientation, shape, masks  
animating text and graphics  
stop motion animation  
cinematic terminology  
video and photo cameras  
digital video terminology  
digital video formats and compression  
compositing  
layering  
keying  
using masks  
color correction

## **ASSIGNMENT DESCRIPTIONS**

*File format:* all assignments must be in the 720p format using H264 codec and MP4 file type.

Assignments should be named in the following format: Proj#\_LastName\_Firstname.mp4

example: *Proj1\_Lee\_Eunmi.mp4*

*source footage:* all photographic, video, and computer graphic imagery used within your projects must be created by yourself. *Found footage, images from the Internet or other sources cannot be used within your projects.*

### **Assignment 1: Animation of Graphics and Text**

resolution: 1280x720(720p) codec: H.264 container: MP4 duration: 40 seconds, fps: 25 or 30

• Create a video clip that contains animation of graphical objects and text. Objects must be animated in position, scale, orientation and shape.

### **Assignment 2: Video Layering, Masks and Keying**

resolution: 1280x720(720p) codec: H.264 container: MP4 duration: 40 seconds, fps: 25 or 30

• Create a video clip that demonstrates at least 4 types of video compositing: size, transparency, masking, blending, alpha channel, luma keying or chroma keying. Source footage for this assignment must come from a video camera.

### **Assignment 3: Video and Graphics**

resolution: 1280x720(720p) codec: H.264 container: MP4 duration: 90 seconds, fps: 25 or 30

• create a video uses the motion graphic techniques covered in assignments 1 and 2(animation of graphical objects and text; layering, masks and keying). The purpose of the project can be: informative, documentary, instructive, entertainment, promotional, or experimental. You have the option of using sound, but it is not required. You will be graded according to the creativity of your idea and the quality and complexity of the motion graphics.

## **MOTION GRAPHIC NOTES**

**definition:** motion graphics is the artificial depiction of objects in motion. This motion is not created by shooting actual objects in motion with a video or film camera, but is created through various techniques including stop motion animation, traditional 2D animation, 2D animation software, 3D animation software, compositing software, video editing software, or special effects software.

### **General process for creating motion graphics:**

1. create concept: what is the primary idea of the project
2. select the purpose of the project:
  - a. informative: informs audience about something, but not for commercial reasons  
example: explaining a new method of creating electricity
  - b. documentary: provides information about something that exists in the real world  
example: interviewing a film director about her life
  - c. instructive: informs audience how to accomplish something  
example: how to use a video camera
  - d. entertainment: provides audience with entertainment  
example: narrative about one cowboys on the planet Mars
  - e. promotion of product or service: encourages audience to purchase promoted item  
example: advertisement for a green tea company
  - f. experimental: purpose is the work itself
3. develop storyboard: create drawings of major events with text descriptions
4. develop production strategy: determine the details of how the project will be created
5. create source material: create source footage, photographs, drawings, music, sound, etc.
6. production: edit source material and create final media files
7. distribution: distribute final media

### **Potential source material:**

- digital video footage
- analog video footage that has been digitized
- film footage that has been digitized
- digital photographic images
- scanned images of hand drawn imagery, painted imagery, or photographs
- graphical shapes as bitmap graphics or vector graphics
- text as bitmap graphics or vector graphics
- 3D animated footage or individual frames
- audio files

### **Methods of compositing:**

- size: smaller layer/object on top of another layer
- transparency: transparent layer on top of another layer
- masking: manually outline an alpha channel area
- blending: interaction between layer properties, such as hue, value, etc
- alpha channel: using clips with imbedded an alpha channel, such as such as 3D animation
- luminance keying: range of values becomes transparent
- chroma keying: range of hues become transparent

### **Characteristics capable of being animated:**

- point of view
- focal length of camera lens
- presence of an object
- position of an object
- scale of an object
- rotation of an object (X, Y and Z)
- shape of an object: transformation
- opacity/transparency of an object
- hue, saturation, value of an object
- property of an effect

**WEEKLY SCHEDULE Course:** Motion Graphics 1 Spring 2012: Monday 10am-1pm Room: Y23-0204

3.5 • Week 1 • introduction to motion graphics and digital video

3.12 • Week 2 • motion graphics and digital video  
• After Effects: overview, animation basics

3.19 • Week 3 • animating text and graphical shapes

3.26 • Week 4 • animating text and graphical shapes, puppet tool

4.2 • Week 5 • compositing, color basics, color correction

**4.9 • Week 6 • individual review** for Assignment 1

4.16 • Week 7 • **Assignment 1 due: Animation of Graphics and Text**

4.23 • Week 8 • video and DSLR photo cameras; cinematic concepts

4.30 • Week 9 • After Effects: compositing with masks, keying and alpha channels  
• stop motion animation

5.7 • Week 10 • After Effects: compositing with masks, keying and alpha channels  
• stop motion animation

5.14 • Week 11 • **individual review** for Assignment 2

**5.21 • Week 12 • Assignment 2 due: Layering, Masks and Keying**

5.28 • holiday, no class

6.4 • Week 13 • **individual review** for Assignment 3

**6.11 • Week 14 • Assignment 3 due: Video and Motion Graphics**