

## ACC Video Game Program,

### Art Track,

#### Art Direction and Design Class: *Characters & Storyboarding*

Course: GAME 1029  
Number of Hours: 42  
Semester: Spring 2007  
Campus: Highland Business Center (HBC)  
Room #: 215  
Class meets: Monday 6pm – 9pm  
Prerequisites: 2D graphics experience  
Lab hours: As posted on classroom door

Instructor: Al Nelson  
Office Hours:  
Monday: TBD

Office Location: HBC Rm. 215  
Phone:  
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#### **Description [update]**

This course will explore designing characters and storyboards for 3D animations. Students will design and draw characters for animation using line to accurately delineate the form. Appropriate proportions and form for an animated character will be studied. A 3D character will be designed and storyboarded for an animation in a 3D scene. Other topics will include the various principles and formats of storyboards, basic cinematic terminology and concepts used in storyboarding.

**Prerequisites:** Design and Life Drawing courses (or Instructor's consent).

#### **Goals Learning Objectives [update]**

The key ~~goals~~ Learning Objectives for students will be:

1. To gain command of a set of methods that will allow them to solve design problems, refine and enhance preliminary design concepts, document these solutions and communicate complex design criteria and inspiration to both artists and non-artists ranging from technical to marketing people.
2. To apply these skills to a specific game concept and stand responsible for the production of materials to document the results. The documents will include pitch materials for promoting the game and design guidelines for implementation. The documents will then be evaluated for a major portion of the grade.
3. To leave the class with new skills and a set of portfolio work demonstrating each student's abilities.

To facilitate meeting our goals, the class will be tasked with frequent, smaller milestones leading to the larger goals. The milestones are listed below, in the class outline.

#### **Schedule**

The class will meet once per week on Mondays, from 6pm until 9pm. The class will begin on Jan 22 – May 7 for a total of 14 3-hour sessions.

#### **Grading**

##### *Grading Policies*

College work must exhibit higher order thinking skills including analysis, synthesis, and evaluation. Mere knowledge about a situation or demonstration of comprehension of the material is not sufficient to prepare you for employment consideration. As a Video Game Development student, you must consistently apply higher order thinking in order demonstrate mastery of the material covered in this course. Grades are given for results not for effort. Read the definitions for each grade noted below, as this is really how grades are determined.

Grading is based on an absolute scale - you are not competing with anyone else, but you will be challenging yourself. There are no distributions of grades; hence, all of you can

earn an A in this course. Note: Students earn grades, faculty members do not give them. Your final grade will be based on both individual and learning team performance. Your final grade will be based on the points that you earn during the course. You may receive “fractions” of points on some assignments. When calculating your final grade, I will use the standard rounding convention – meaning that scores with a fraction of ½ or greater will be rounded up, those with a score of less than ½ will be rounded down. I will use the following grading scale to calculate your letter grade.

The grading scale is based on a 100-point (or percentage) scale:

**How points and percentages equate to grades**

<b>A</b>	90 and above	<b>A</b> = Excellent performance. Work is exemplary and worthy of emulation by others. Student is in full attendance and constructively contributes to the learning environment.
<b>B</b>	80-89	<b>B</b> = Above average performance. All assignments are complete and exhibit a complete understanding and an ability to apply concepts.
<b>C</b>	70-79	<b>C</b> = Average performance. Accomplishes only the minimum requirements. Oral and written communication is at an acceptable level for a college student.
<b>D</b>	60-69	<b>D</b> = Demonstrates understanding at the most rudimentary level. Work is minimally passing.
<b>F</b>	< 59	<b>F</b> = Work is not passing, characterized by incompleteness, lateness, unsatisfactory demonstration of understanding and application.

**Need update?**

This class will be graded on a traditional 100-point scale. Each of the 8 milestone deliverables will count for a maximum of 10 points each. Up to 10 extra points will be awarded for each student’s presentation to the 3<sup>rd</sup> party review committee. 10 additional points can be earned for superior art and design talents as judged by the instructor. Incomplete or late deliverables will be graded as a 5. This methodology will simulate real industry pressures and time limits. Moderate participation will result in a mediocre grade. Only full effort, talent, timelines and successful presentations will insure a top grade.

**Class Syllabus Outline**

**Phase I Conceptualization**

- Class 1
- Intent of the class
- Materials needed
- Grading method
- Design goals IRAUBAI
- Gesture drawing
- Check silhouette
- Check reverse / mirror image
- Simplicity of color
- Simplicity of form
- Scale in heads

Color part 1  
Range of motion, emotion  
Hulk homework  
Class 2  
Costume design  
FMA example  
Team affiliation  
Finding key features  
Design for multiple mediums

### **Phase II Formalization**

Class 2 cont.  
Intro to character / model sheet  
Review examples  
Establish our format  
Intro to attitudes sheet  
Intro to expressions sheet  
Boxing Day exercise  
Boundary cases

Class 3  
Review character sheet examples  
Color theory  
Color in various mediums  
Digital color in bytes  
Specifying colors for characters

### **Phase III Implementation**

Class 3 cont.  
Intro to modeling  
Discuss geometry  
Spending polygons  
RT versus pre-rendered  
Texture mapping  
Discuss rigging

Class 4  
Robot design exercise  
    Make concept sketches  
    Validate / refine design  
    Produce character sheet  
Intro to Wings 3D  
Produce robot model in Wings 3D  
Review, discuss results

Class 5  
Adding motion  
Muybridge examples  
Keyframing  
Cycles of motion  
Animation physics  
Stick figure motion exercise  
Moving backgrounds  
Dogwaffle background exercise  
Composite in GifAni  
Review results

Class 6

Custom character project

Create concept drawings

Refine character with IRAUBAI

Produce Model sheet

Produce Attitudes sheet

Produce Expressions sheet

Specify colors

Class 7

Custom Character due

Review characters, discuss

### **Phase IV Visualization of Sequences**

Class 7 cont.

One hour film school

Intro to cine lighting

Examine scripts

Class 8

Intro to storyboarding

Review examples

Establish rules

Breaking action into panels

Camera direction

Depicting action

Lighting notes

Presentation vs working boards

Review examples

Class 9

Planning a storyboard

Finding a script sequence

Breaking down sequence

Produce thumbnails

Checking pacing

Conforming to rules

Adding artistic touches

Class 10

Storyboard exercise

Create a 12 panel storyboard

Review and discuss results.

Class 11

Storyboard Variants

Presentation boards

Create a 4 panel presentation board

Interactive storyboards

Create a branching board

Class 12

Review all material

Prepare for test

Discuss job search and materials

Class 13

Exam  
Grading  
Review results  
Final business  
Class review and evaluation

Class 14  
???

### Example game concepts: [keep this?]

**Above and Below** - (Mad Max meets Tank Girl on the Boy and His Dog planet)  
When the world is covered in 60 feet of volcanic ash, you must dig for goods while fending off heavily armed scavengers, claim jumpers and robbers. It is just you, your machine gun, humvee and shovel. Can you survive to discover the ancient secret that could renew life on the barren land? The answer lies in the underground maze that was once the world.

**The Hidalgo Incident** - (Quake in buckskins, cowboys and aliens; spaghetti sci-fi)  
Many people wonder if a UFO fell to earth in Roswell, New Mexico in 1947. Few realize that 28 years earlier on a bleak Christmas Eve in Hidalgo, Texas an expeditionary force of aliens disturbed a dinner party hosted by famed Texas Ranger, Lone Wolf Gonzalles. Among the guests were the last gunfighting lawmen of the west. Though aging and outmoded, Jelly Brice, Col. Elmer Askins, Bill Jordan and Elmer Keith turned back the invaders with cool heads and hot lead.

**Powder Wagons** -(Console arcade – light cycles meets Rocketeer) Pilot your leaky truck full of gun powder, nitro or aircraft fuel through crowded city streets to the waiting defense plant, leaving a trail behind you all the way. Hurry Mack, we're at war. Avoid sparks, cigarette butts, downed power lines and anything else that could cause the dreaded fuse effect - KerPow! Drive over grates, puddles and other players' powder trails to break your own trail and prevent spectacular explosions. Deliver your cargo and collect money for upgrades.

**The Resistance** – (Sci-fi 3D Prince of Persia plus Delicatessen & the French underground of WWII) When a occupying army of killer robots sets down on your sleepy planet, your little band of flea-bitten circus performers are out of a job. Unless a strong man, an acrobat, a conjurer, a knife thrower and a clown can turn the tide. Use your team's unique skills to vex the enemy, run raids, set traps and finally defeat them.

**Book of the Dead** – (1<sup>st</sup> person, 3D, head-to-head, fantasy fighter) The Tibetan book of the dead perfectly describes a fighting game full of eye-popping boss monsters, minions and various levels of play. In this game, you are the ancient world's greatest hero, robbed of your life prematurely by an evil sorcerer. You are tasked with fighting your way through several cultures' underworlds (Egypt, Tibet, Norse, Greek, etc) to escape death, return to Earth and smite your killer.

### Video Game Development Program Philosophy

The Video Game Development Program has been designed, developed and implemented in partnership with leading video games studio managers and directors in Austin. The video games industry has undergone significant changes in how games are developed. They are rarely developed by few persons working in isolation. Today's games are often developed by teams of 50 to 200 on schedules from 2 to 3 years with budgets of \$10M to \$20M. The large publishers drive the game development funding and

schedules. Consequently, it is critical that personnel in the industry communicate and collaborate effectively.

This drove the certificate requirements definition. Students are required to successfully complete courses in four categories:

1. The base industry courses: Video Games Industry, Business of Video Games and Video Games Development.
  - a. Students will understand what drives the industry, why games are developed, what is needed for success and how to get from idea to delivery.
2. The course specialization courses: Video Game Programming, Video Game Art, Video Game Design and Video Game Production.
  - a. Students will understand the requirements, objectives, limitations and goals of the different disciplines in a studio. This is essential for communication and collaboration.
  - b. Students in these core courses will be cross-discipline in order to build an understanding and appreciation of how different discipline teams collaborate and contribute to the final product.
3. The five specialization electives.
  - a. Students will develop skills in the discipline in which the student will seek employment.
4. Non-specialization electives
  - a. These are optional courses that will give you a deeper understanding of what other disciplines do and how they function. They will help you understand how to work with others on the team and to get the 'big picture.' These courses do not count towards the Video Game development certificate.
5. Capstone Project
  - a. This multi-person team project will simulate the real video game development environment. Students will develop a concept, turn it into a design, implement the programming and art required and produce it on the committed schedule. Go/no go milestones and final "publisher" acceptance reviews will mimic the industry. The students will have a deliverable for their portfolio that can be used for employment purposes.

Throughout the program each course will focus on knowledge transfer, skill building and teamwork. There will be a heavy emphasis on projects that will broaden and deepen each student's portfolio development. Portfolios are critical to demonstrating an individual's capabilities. Some projects will individual, many will be team based. How much a student gets out of each course will largely be determined by how much the students puts into the course. Video game development is highly complex, difficult work. The courses are designed to prepare students for that environment. So, come expecting to work hard.

The program is designed to reinforce key concepts such as teamwork, collaboration, and cooperation across all disciplines in the games development and management process. Many concepts are repeated throughout the program because they are extremely important to successful game development.