#### The Art Institute of California - Orange County

#### Course Syllabus

**Course Number:** GA3331

**Course Title:** Game Prototyping

**Class Meetings:** Saturday 12:00 PM to 4:00 PM

**Session/Year:** Winter 2014

**Instructor Name:** Keith Miron

**Email Address:** [kmiron@gmail.com](mailto:kmiron@gmail.com)

**Website:** <http://gameprototyping.acousticgames.com>

**Phone:** (814) 883-9786

**Instructor Availability Outside of Class:** Saturday 11AM to 12PM

## **Game Prototyping**

**Course Description:**

In this course, the student learns to analyze the game-play needs of the overall game project and creates specific-level designs accordingly. After a brief introduction of the game development process, the course turns to processes of determining game-level needs and creating content for the predetermined levels.

# Course Length: 11 Weeks

### Contact Hours: 44 Hours

**Lecture:** 22Hours

**Lab**: 22 Hours

**Credit Values:** 3 Credits

**Course Competencies:**

Upon successful completion of this course, the student should be able to:

* Create a game back story, character biographies, and concept bible.
* *Demonstrate critical thinking and creative writing skills in the production of a standardized document describing the game in detail.*
* Conceptualize, develop, and produce a game document.
* *Exercise planning and organization skills in the production of a written and oral description .of the scope and sequence of the game development life-cycle.*
* *Create and document a marketing plan for an interactive concept and design .*
* *Write a proposal for the development of this game.*
* Critically evaluate video games.
* *Discuss and evaluate the strengths and weaknesses of various games, and draw market-relevant conclusions for the production of the student project.*
* *Observe and document code errors in video games.*
* *Identify program problem issues.*
* Create playable demo-grade games.
* *Produce a computer game prototype using appropriate interactive computer gaming or multimedia software.*
* *Apply scripting and programming techniques for optimized play of the tool used.*
* *Design and de-bug games.*
* Analyze project art needs and control all files and assets.
* *Collect, create, synthesize and optimize audio, video and graphic elements needed for the production of the game.*

**Course Prerequisite(s):** GA3312 Level Design

**Required Text: None**

**Materials and Supplies:** Students will need a copy of Unity (Free edition), as well as a copy of [**Unity Playmaker**](http://www.hutonggames.com/) ($45 with student discount). Students will need a portable computer media storage device (e.g., a ‘thumb drive’). *You won’t need a lot of capacity in it, as the files are small, but you will need to maintain your files between class sessions and be able to work on them at home.*

**Estimated Homework Hours:** 2-6 hours per week.

**Technology Needed:** PC Lab with adequate table space for analog game prototypes.

**Assessment Criteria & Methods of Evaluation:**

### Evaluation of Student Performance

|  |  |
| --- | --- |
| Analog Prototype | 10 points 1 |
| Game Prototype #1 | 10 points |
| Game Prototype #2 | 10 points |
| Game Prototype #3 | 10 points |
| Homework (4) | 20 points |
| Final Prototype | 20 points |
| Attendance 2 | 20 points 2 |
|  |  |
| Total 3 | 100 points 4 |

1. This is the only non-digital homework that will be due

2. Missing 4 or more classes results in an automatic failure of the course. Every class missed after the second absence will result 10 points deducted..

3. Note that extra credit assignments are usually provided during the course and extra credit points might also be awarded for class participation. Students may voluntarily participate in extra credit assignments but are not required to do so. Points earned for extra credit are **in addition to** the above schedule.

4. A student’s final score may also including extra credit, as earned through homework and lab work.

All assignments must have clear criteria and objectives to meet. All students shall be treated equitably. It will be that student’s right to know his/her grade at any reasonable point that information is requested by that student. The criteria for determining a student’s grade shall be as follows (on a percentage of total points basis):

A 100-93

A- 92-90

B+ 89-87

B 86-83

B- 82-80

C+ 79-77

C 76-73

C- 72-70

D+ 69-67

D 66-65

F 64 or below

**Classroom Policies:**

* Class time will be spent in a productive manner.
* All work must be received by the set deadlines.
* On-time projects may be redone with instructor approval.
* No food allowed in computer labs at any time. Drinks in recloseable bottles allowed in classroom.
* If student elects to eat/drink outside class or lab door, missed time is recorded as absent.
* Attendance is taken on a regular basis. Tardiness or absence is recorded in 15-minute increments.
* Break times are scheduled by the instructor at appropriate intervals.
* No private software is to be brought to lab or loaded onto school computers.
* No software games are allowed in lab (unless in course curriculum).
* Headphones are required if listening to music in computer labs. No headphones are allowed during lecture.
* To receive special accommodations for a documented disability, the student must present their letter of accommodation to the instructor by the end of the first day of class. This letter should be obtained each quarter from the Student Affairs department. Any resulting class performance problems that may arise for those who do not identify their needs will not receive any special grading considerations.
* ID Badges must be visible at all times on campus.
* Grading will be done on a point system.
* Points for individual activities will be announced.
* **Negative points** are scored for absenteeism. The penalty of -1 point is assessed per tardy (with attendance taken twice per session) and -3 points for a complete absence.
* You must turn in assignments at the **beginning** of class. If you must miss a class meeting, please contact me in advance to make alternative arrangements for submitting that week’s homework.
* No late homework assignment will be accepted after **one** week. All late homework assignments are worth *one* less point for being late regardless of the reason.
* If you miss an exam, attend **the next class session 1/2 hour early**. You will be given a special make-up exam **at that time only.** Any other special arrangements for making up exams or homework will be made entirely at the instructor’s discretion.
* ABSOLUTELY NO WORK WILL BE ACCEPTED AFTER THE FINAL CLASS MEETS WEEK 11.

**Students with Disabilities:**

The Art Institute of California – Orange County is committed to providing qualified students with a disability an equal opportunity to access the benefits, rights and privileges of school services, programs and activities. The Art Institute of California – Orange County provides reasonable accommodations to students with documented disabilities.

Accommodation requests should be submitted as far in advance as possible. It is the responsibility of the student to contact the Student Services Department to initiate this process (714-830-0239). The Student Services Department will assist qualified students with disabilities in acquiring reasonable and appropriate accommodations.

**Attendance Policy:**

Successful completion of a course is dependent upon regular attendance in the classroom. Critical information is delivered through lecture, critique and student interaction. Missing more than 20% of the course hours (or 2 weeks) is fundamentally prohibitive to student success.

It is strongly recommended that any student who – for ANY reason – misses more than 2 weeks worth of instructional hours meet with their instructor for an evaluation. The instructor reserves the right to determine the feasibility of the student potential for avoiding a failing grade and successfully demonstrating all of the gradable course competencies within the class time remaining. If the instructor determines that the student still retains the potential to demonstrate all of the gradable course competencies then the student will be granted the option of attempting a passing grade. If an evaluation meeting has not taken place before 30% or 3 weeks of absence, the student can receive a failing grade for the course.

|  |  |  |  |
| --- | --- | --- | --- |
| Classes Missed | **Hours missed** | **% Class time** | **Effect on finalgrade** |
| 2 | 8 | 18 | Reduction by one letter grade |
| 3 | 12 | 27 | Reduction by two letter grades |
| More than 3 | More than 12 | More than 27 | F Grade |

**Student Conduct Policy:**

The Art Institute of California – Orange County expects its students and employees to conduct themselves in a professional manner at all times. In addition, the Art Institute has a strict policy which disallows sexual harassment of either students or employees. All students or employeesare encouraged to report any professional or sexual misconduct to the Director of Student Services.

**Academic Dishonesty:**

Students are expected to maintain the highest standards of academic honesty while pursuing their studies at The Art Institute. Academic dishonesty includes but is not limited to: plagiarism and cheating, misuse of academic resources or facilities, and misuse of computer software, data, equipment or networks.

Plagiarism is the use (copying) of another person’s ideas, words, visual images, or audio samples, presented in a manner that makes the work appear to be the student’s original creation. All work that is not the student’s original creation, or any idea or fact that is not “common knowledge,” must be documented properly to avoid even accidental infractions of the honor code.

Cheating is to gain an unfair advantage on a grade by deception, fraud, or breaking the rules set forth by the instructor of the class. Cheating may include but is not limited to: copying the work of others; using notes or other materials when unauthorized; communicating to others during an exam; and any other unfair advantage as determined by the instructor.

**Student Success Center:**

Faculty will be available during office hours to share knowledge, engage in dialogue and/or give advice and guidance to our student body in the Student Success Center located in Building C (Room C226).

Students may meet with faculty during their office hours by scheduling an appointment with the faculty member, or by consulting the SSC schedule posted outside of Room C226.

**Commitment to Excellence – Reading/Writing/Comprehension:**

While the principal goal of this course is the acquisition of knowledge in the subject area, students should be aware that The Art Institute of California – Orange County requires that research on a particular topic, and clear and effective writing be an integral part of the learning process.

**Library Assignment:**

All students will need to utilize the Library for research and reference throughout the quarter. The Library is a valuable source for finding design ideas that will be needed for this course, i.e.: inspiration and design fundamentals for mid-term and final projects; locating popular trends in design, illustration and photography; referencing past award winning designs which may be used as a guide; identifying benchmarks or referencing competent design works.

Library Web URL: <http://stu.aii.edu/~gwd301/library.html>

**Student Art Work:**

All student work, which has not already been returned during the quarter, will be available for pickup no later than 5:00 pm, Monday of the first week of break. Any work NOT picked up by that date and time will be discarded unless other arrangements have been made. Students must take responsibility for their art work.

##### **Course Outline**

**Week 1: Lecture:** Explain course subject and methodologies; Personal background; Q&A questions; Analog Games; Prototyping in the game industry; Design docs

**Lab:** Analog prototype and modding "War"

**Homework:** Do research; create complete analog game prototype as demonstrated in class.

**Week 2: Lecture:** Iterative Game Design; The publisher/developer cycle; “Perfect” Gameplay vs “Great” gameplay;

**Lab:** Analog prototype and modding Diablo (RPG) and Starcraft (RTS). **Homework**: Complete Paper Prototype #1. Mod the game of war with additional rules, dice and tokens.

**Week 3:** **Lecture:** Unity, Playmaker and usefulness of scripting in the game industry. Why Unity + Playmaker? Learning Source Control.

**Lab:** Unity Tutorial #1

**Homework:** Finish Unity Tutorial #1

**Week 4: Lecture:** Making the most out of your game prototype, practical examples.

**Lab:** Complete Unity + Playmaker Tutorial #2

**Homework:** Complete Game prototype #1

**Week 5: Lecture:** Designing for different player types (Mass Market, Hardcore, Casual). Rewards instead of punishments.

**Lab:** Unity + Playmaker Tutorial 3

**Homework:** Complete Unity + Playmaker Tutorial 3

**Week 6: Lecture:** Designing and creating multiplayer games

**Lab:** Unity + Playmaker Tutorial 4

**Homework:** Complete Game prototype #2

**Week 7: Lecture:** Rules and constraints, Game intensity, “The Learning Curve”, Fulfillment and Rewards, The “Farmville” effect

**Lab:** Unity + Playmaker Tutorial 5

**Homework:** Finish Unity + Playmaker Tutorial 5

**Week 8: Lecture:** Saves - then and now; interface design.

**Lab:** Unity + Playmaker Tutorial 6

**Homework:** Complete Game prototype #3

**Extra Credit:** Make a presentation to the class teaching us something new about Unity + Playmaker to help us create games with it.

**Week 9: Lecture:** Presentations for extra credit (if any), *Concept documents and expectations for the final Unity + Playmaker Game prototype*

**Lab:** Work on final Unity + Playmaker game documentation and prototype. Playtest student game projects (round 1) for extra credit.

**Homework:** Concept document for Unity + Playmaker game and an improved version of the Unity + Playmaker mod.

**Extra Credit:** Make a presentation to the class teaching us something new about Unity + Playmaker to help us create games with it.

**Week 10: Lecture:** Presentations for extra credit (if any)

**Lab:** Final projects, Playtest student game projects (round 2) for extra credit.

**Homework:** **1)** Create final version of the Unity + Playmaker game and bring it to class for evaluation.

**2)** Write a review/analysis of the class and suggest improvements.

**Week 11: Lecture:** Course project game presentations.

**Homework:** None.