**ESSEX COUNTY COLLEGE**

**Humanities Division**

**NMT 202 Game Design and Application**

**Course Outline**

**Course Number & Name:**  NMT 202 Game Design and Application

**Credit Hours:**  4 .0 **Contact Hours:**  5.0 **Lecture:** N/A **Lab:**  4.0 **Other:**  N/A

**Prerequisites**:  Grade of “C” or better in NMT 201 Flash and Actionscripting or ART 171 Cyberspace Graphics and Beginning Animation

**Co-requisites:** None **Concurrent Courses:** None

**Course Outline Revision Date:**  Fall 2010

**Course Description**: This course introduces the student to the principles of game design, including imagining the game, defining the way it will work, describing the elements of the game and transmitting the information to the team which will build the game. The student will learn to create interactive games for different platforms. Storyboarding, character development, interactivity and introductory scripting will be covered.

**Course Goals:** Upon successful completion of this course, students should be able to do the following:

1. demonstrate knowledge of storyboarding, character development, interactivity and introductory scripting using various computer software platforms;

2.   utilize various problem-solving software techniques to create interactive games; and

3.    communicate information accurately to the team building the game.

**Measurable Course Performance Objectives (MPOs)**: Upon successful completion of this course, students should specifically be able to do the following:

1. Demonstrate knowledge of storyboarding, character development, interactivity and introductory scripting using various computer software platforms:

* 1. *translate software platforms into game characters and introductory scripting*;and
	2. *perform basic operations involved in storyboarding and interactivity*

2. Utilize various problem-solving software techniques to create interactive games:

2.1 *apply various problem-solving methods to solve game interactivity using different platforms*

3. Communicate information accurately to the team building the game:

3.1   *write and explain character development, storyboarding, script development and interactivity to the other students’ game building on their own computers*

**Methods of Instruction**: Instruction will consist of lectures, demonstrations, and individual creative work.

**Outcomes Assessment:** Rubrics are used to evaluate the projects, which are blueprinted to the objectives of the course, for the presence and mastery of course objectives. Data is collected and analyzed, and findings are used for pedagogical and/or curricular improvement.

**Course Requirements:** All students are required to:

1. Maintain regular attendance.

2. Complete all assigned projects.

**Methods of Evaluation:** Final course grades will be computed as follows:

 **% of**

**Grading Components final course grade**

* **Attendance 0 – 20%**

Students must be present to benefit from the instructor’s expertise.

* **Assigned Project**  **20 – 100%**

Students must complete an interactive game design. In doing so, they will be required to apply and synthesize content learned in the course. Projects will be assessed for the presence of course objectives.

Note: The instructor will provide specific weights, which lie in the above-given ranges, for each of the grading components at the beginning of the semester.

**Academic Integrity:** Dishonesty disrupts the search for truth that is inherent in the learning process and so devalues the purpose and the mission of the College. Academic dishonesty includes, but is not limited to, the following:

* plagiarism – the failure to acknowledge another writer’s words or ideas or to give proper credit to sources of information;
* cheating – knowingly obtaining or giving unauthorized information on any test/exam or any other academic assignment;
* interference – any interruption of the academic process that prevents others from the proper engagement in learning or teaching; and
* fraud – any act or instance of willful deceit or trickery.

Violations of academic integrity will be dealt with by imposing appropriate sanctions. Sanctions for acts of academic dishonesty could include the resubmission of an assignment, failure of the test/exam, failure in the course, probation, suspension from the College, and even expulsion from the College.

**Student Code of Conduct:** All students are expected to conduct themselves as responsible and considerate adults who respect the rights of others. Disruptive behavior will not be tolerated. All students are also expected to attend and be on time for all class meetings. No cell phones or similar electronic devices are permitted in class. Please refer to the Essex County College student handbook, *Lifeline*, for more specific information about the College’s Code of Conduct and attendance requirements.

**Course Content Outline:** based on the text by[Rex van der Spuy](http://www.amazon.com/s/ref%3Drdr_ext_aut?_encoding=UTF8&index=books&field-author=Rex%20van%20der%20Spuy). *Foundation Game Design with Flash.* Friends of ED; 1st edition; copyright 2009.

**Week Topic**

1 Overview of Class Syllabus/Introduction to Game Design

2 Programming Foundations: How to Make a Video Game

3 Understanding Interactive Objects

4 Programming Objects

5 Controlling Movie Clip Objects

6 Decision Making: Setting up Project Files

7 Controlling a Player Character

8 Trial and Error: Setting the Game Design

9 Object-Oriented Game Design

10 Platform Game: Physics and Data Management

 Begin Project preparation

11 Advanced Object and Character Control

 Continue Work on the Project

12 Continue Work on the Project

13 Continue Work on the Project

14 Continue Work on the Project

15 **Final projects are due**/Individual conferences

Note: The above weekly schedule is subject to changes based on the explanatory circumstances of the needs of the class.