

Pellissippi State Community College
Master Syllabus

**INTRODUCTION TO GAMING AND SIMULATION PROGRAMMING
CSIT 1620**

Class Hours: 3.0
Laboratory Hours: 3.0
Credit Hours: 4.0
Revised: June 2009

Instructor:
Office:
Phone:
Email:

Course Description:

An introduction to the field of game development using programming languages, 2D and 3D development tools, online resources, language structures and syntax, use of game development techniques and application of scripting in a virtual world will be explored.

Entry Level Standards:

Students will use online interactive tutorials in class and as homework assignments, so usage of a home computer with internet access and/or use of open lab systems will be required outside of the allocated and scheduled lab times. Students must be able to read, write, speak and reason at the college level.

Co-requisite(s): MDT 1600

Prerequisites: None

Textbooks and Other Reference Materials:

Extensive online tutorials, handouts in-class presentations and virtual world resources will be provided. **2GB (minimum) Flash/Pen/Jump USB Storage Drive**, Notebook

Suggested Optional Supplementals:

Web site material will be used to supplement this course.

I. WEEK / UNIT / TOPIC BASIS:

Week	Topic
1	The Gaming arena; incentives to program in this emerging job sector
2-3	Introduction to 2D programming structures.
4-5	Introduction to 3D programming structures.
6-10	C++ as a Game platform language, structures and syntax
10	Midterm Test
11-14	Virtual World programming; introduction to scripting language usage
15	Final comprehensive test / project / product completion and notebook presentations

II. COURSE OBJECTIVES:

The student should be able to:

- A. Discuss the need for game programming today, (including aspects beyond traditional game play development). I, II, III, IV, XI
- B. Demonstrate an understanding of the primary concepts of game play and animated 2D motion and interaction. I, II, III, IV, XI
- C. Demonstrate an understanding of the primary concepts of game play and animated 3D motion and interaction. I, II, III, IV, XI
- D. Demonstrate use of algorithms and data structures as applied to game development. I, II, III, V, IX, XI, XII
- E. Recognize and demonstrate proper syntax, code structure and working game-based programming and scripting products. I, III, X, XI
- F. Generate a set of tutorial resources for continued use of the products presented. V, VI, VII, IX, XI, XII
- G. Demonstrate logic, use of resources and tools to develop a working set of game products. I, II, III, X, XI, XII

III. INSTRUCTIONAL PROCESSES:

Student will:

1. Acquire and/or write documents to be used as a future resource for game development and share resources with other students. (Active Learning Strategies, Communications Outcome)
2. Work to deadlines and schedules, and be encouraged to improve study and learning skills (Active Learning Strategies)
3. Learn and apply game development techniques, apply these skills to novel problem situations, and participate in a team project and individual projects. (Active Learning Strategies, Social/Behavioral Sciences Outcome)
4. Learn about the hardware, language, tutorial and software implementations used for game generation, including those used in class and others found through handouts and research. (Technological Literacy Outcome)
5. Effectively utilize the resources provided and other sources of research to create a base-line set of resources that can be used beyond the scope of this course. (Technological Literacy Outcome)

IV. EXPECTATIONS FOR STUDENT PERFORMANCE:

1. Demonstrate knowledge of game usage and development. (A, F, G)
2. List, discuss and use 2D products. (B, D, E)
3. List, discuss and use 3D products. (C, D, E)
4. Generate working code that will demonstrate game play actions and outcomes. (B, C, D, E, F, G)
5. Find and use tutorial resources. (B, C, D, E, F, G)
6. Create computer programs that utilize Blitz. (B, C, D, G, E)
7. Create computer programs that utilize C++. (B, C, D, G, E)

8. Create computer controlled (scripted) objects in a 3D virtual environment. (B, C, D, G, E)
9. Maintain a detailed course notebook or presentation product representing the completed coursework. (A, B, C, D, E, F)
10. Present or demonstrate a final product for class review. (A, B, C, D, F)

V. **EVALUATION:**

A. Testing Procedures:

Students are evaluated primarily on the basis of tests and laboratory assignments. The instructor will provide full details the first week of class via a syllabus supplement.

B. Laboratory Expectations:

Lab is part of this lecture/lab course, and attendance is required. This is a hybrid course requiring home and online additional resource discovery and independent lab based work. Assignments and projects will be given and must be completed and handed in at the designated date. The student is expected to turn in all required documentation for each lab.

C. Field Work: See Laboratory Expectations.

D. Other Evaluation Methods:

Class participation and online activities/homework will also comprise the final grade for the course.

E. Grading Scale:

93 – 100	A
88 – 92	B+
83 – 87	B
78 – 82	C+
73 – 77	C
65 – 72	D
Below 65	F

VI. **POLICIES:**

A. Attendance Policy:

Pellissippi State Community College expects students to attend all scheduled instructional activities. As a minimum, students in all courses must be present for at least 75 percent of their scheduled class and laboratory meetings in order to receive credit for the course. (*Pellissippi State Online Catalog*)

B. Academic Dishonesty:

Plagiarism, cheating and other forms of academic dishonesty are prohibited. A student guilty of academic misconduct, either directly or indirectly through participation or assistance, is immediately responsible to the instructor of the class.

In addition to other possible disciplinary sanctions that may be imposed through the regular Pellissippi State procedures as a result of academic misconduct, the instructor has the authority to assign an F or a zero for the exercise or examination or to assign an F in the course. (*Pellissippi State Online Catalog*)

C. Computer Usage Guidelines:

College-owned or –operated computing resources are provided for use by students of Pellissippi State. All students are responsible for the usage of Pellissippi State's computing resources in an effective, efficient, ethical and lawful manner. (*Pellissippi State Online Catalog*)

D. Accommodation for Disabilities:

Students who need accommodations because of a disability, have emergency medical information to share, or need special arrangements in case the building must be evacuated should inform the instructor immediately, privately after class or in her or his office. Students must present a current accommodation plan from a staff member in Services for Students with Disabilities (SSWD) in order to receive accommodations in this course. Services for Students with Disabilities may be contacted by going to Goins134 or 126 or by phone: 694-6751(Voice/TTY) or 539-7153. More information is available at www.pstcc.edu/departments/swd/.