

PELLISSIPPI STATE TECHNICAL COMMUNITY COLLEGE
MASTER SYLLABUS

**GAME & SIMULATION DESIGN & DEVELOPMENT INTRO
MDT 1600**

Class Hours: 3.0

Credit Hours: 3.0

Laboratory Hours: 0.0

Revised: Fall 2010

Catalog Course Description:

Overview course for design and development of video game systems. Topics include game theory, asset management, game production techniques and “game engine” use. Students will create a game demo presentation for analysis. Designed for anyone interested in pursuing further training in either game/simulation design or development or both.

Entry Level Standards:

College level reading and writing, plus adequate planning and logic capabilities are expected. Students will be required to read handouts and online material and be ready to discuss the material in class. In addition, students will be expected to do independent research on the topics.

Prerequisites:

None

Textbook(s) and Other Course Materials:

Game Development Essentials by Jeannie Novak.

Access to Gamasutra.com (create an online account). An approved Second Life account for class use. Extensive online tutorials, handouts in-class presentations and virtual world resources will be provided.

I. Week/Unit/Topic Basis:

Website material will be used to supplement this course.

Week	Topic
1	History of video games
2	Game genres
3	Interactive storytelling
4	Creating and managing digital assets (2D, 3D, audio, script code, animation)
5	Gameplay and game balance, game theory
6	Gameplay and game balance, game theory
7	Project planning and management for games

- 8 Business concepts in game industry
- 9 Game engines and prototyping
- 10 Programming games
- 11 Motivation in gaming
- 12 Future of gaming and alternate platforms
- 13 Using Second Life as a platform for prototyping
- 14 Documentation and analysis of demo presentations
- 15 Final Comprehensive test / Project / Product Completion

II. Course Objectives*:

- A. Develop a fundamental understanding of modern video game design and development through directed study, lectures, demonstrations and projects. I, II, III, IV
- B. Develop participatory competence in a specialized field (germane to game design) which will be applicable to production and/or conceptualization of a modern video game or simulation. I, II, III, IV
- C. Develop an understanding of the interrelationship(s) between technological advances and game and simulation design tools and businesses. I, II, III
- D. Demonstrate by participation, the ability to collaborate as a team member in the creation of a complex project. I, II, III
- E. Apply known game and simulation strategies to a new product. I, II, III, V
- F. Discuss a variety of game and simulation genres and how they apply to modern products. I
- G. Discuss and critique current game ethics and how they influence products. I

*Roman numerals after course objectives reference goals of the Media Technologies program.

III. Instructional Processes*:

Students will:

- 1. Demonstrate ability to apply aesthetic conventions to design of game and simulation products. (*Active learning Strategies, Transitional Strategies*)
- 2. Work together as a team. (*Active Learning Strategies*)
- 3. Demonstrate willingness and ability to meet deadline requirements. (*Transitional Strategy*)
- 4. Explore general field of game and simulation design to discover their major area(s) of interest. (*Transitional Strategies*)
- 5. Utilize and refine technical skills and knowledge. (*Active Learning Strategies, Technological Literacy Outcome*)
- 6. Apply leadership and teamwork skills in carrying out team assignments. (*Active Learning*)

Strategy, Transitional Strategy)

7. Be able to work in development of advanced skills. (*Technological Literacy Outcome*)

*Strategies and outcomes listed after instructional processes reference TBR's goals for strengthening general education knowledge and skills, connecting course work to experiences beyond the classroom, and encouraging students to take active and responsible roles in the educational process.

IV. Expectations for Student Performance*:

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

1. Demonstrate an awareness of the application of the specific field of study within the video game industry. (A)
2. Apply concepts learned to design work in other classes and in the professional field. (A, C)
3. Exhibit knowledge of the basic game design concepts. (A)
4. Appreciate and apply of the concepts presented in game design. (A, C)
5. Complete at least one major game design project and be able to constructively criticize the work of oneself and one's peers. (A, B)
6. Write insightful, appropriately developed answers to essay questions concerning the works studied. (B, C)
7. Articulate the value and application of game design to the broader form of media production. (A, B, C)

*Letters after performance expectations reference the course objectives listed above.

V. Evaluation:

A. Testing Procedures:

The specific evaluation methods will vary according to the course content. However, attendance, tests, participation in class activities, and at least one production project will all be part of the evaluation process.

1. Quizzes and tests will comprise: 30% of grade
2. Laboratory Expectations: 30% of grade
3. Projects will account for remaining 40% of grade.

Note: Production projects will vary with course topic and individual and group projects may be assigned. Group projects will be joint decision of students working in-group with the approval by instructor.

B. Other Evaluation Methods:

Class participation and online activities/homework will also be weighed in the final grade for the course.

C. Grading Scale:

90 – 100	A
85 – 89	B+
80 – 84	B
76 – 79	C+
70 – 75	C
65 – 69	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. [NOTE: No differentiation is noted for excused/unexcused absences. These will be treated as an absence.] (*Pellissippi State Online Catalog*)

B. Academic Dishonesty:

Plagiarism, cheating, and other forms of academic dishonesty are prohibited. Students guilty of academic misconduct, either directly or indirectly through participation or assistance, are immediately responsible to the instructor of the class. In addition to other possible disciplinary sanctions which 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. Accommodations 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 Goins 127, 132, 134, 135, 131 or by phone: 539-7153 or TTY 694-6429. More information is available at www.pstcc.edu/departments/swd/.

D. Other Policies:

Use of Equipment:

Any act of misuse, vandalism, malicious or unwarranted damage or destruction, defacing, disfiguring, or unauthorized use of property/equipment belonging to Pellissippi State is subject to disciplinary sanction.