

Bossier Parish Community College
Master Syllabus

Course Prefix and Number: CTEC 260

Credit Hours: 3-3-0

Course Title: Interactive Program Design

Course Prerequisite: CTEC 151

Required Textbook: *Unity in Action: Multiplatform game development in C# 2nd Ed.* Joe Hocking, ISBN-13: 978-1617294969

Course Description: This course is an introduction to the design of programs that involve real-time user interaction with an emphasis on graphical computer game design. Topics in the course will include displaying graphics, event management, basic game architecture, maintaining program state and game design strategy.

Learning Outcomes:

At the end of this course, the student will:

- A. create a graphical interactive program;
- B. implement methods that manage user input in real-time;
- C. manage program state via Object Oriented architecture;
- D. implement movement programmatically; and
- E. implement basic AI behavior.

To achieve the learning outcomes, the student will or will be able to:

(The letter designations at the end of each statement refer to the learning outcome(s).)

- 1. Create a user interface using predefined libraries; (A)
- 2. Implement event handlers that respond to user input; (B)
- 3. Create classes to define basic player and enemy behavior; (C, E)
- 4. Design algorithms to maintain the state of program objects in real-time; (C)
- 5. Design and create graphical objects that can move in the user interface; and (D)
- 6. Design algorithms to control non-player object movements and actions. (E)

Course Requirements:

- 1. A student must successfully complete the course with an average of 70% or above on the combined learning outcomes.
- 2. Each student is expected to attend classes regularly; excessive unexcused absences constitute grounds for suspension (refer to the student handbook for attendance policies).

Course Grading Scale:

A = 90 - 100

B = 80 - 89

C = 70 - 79

D = 60 - 69

F = 0 - 59

Course Fees: This course is accompanied with an additional non-refundable fee for supplemental materials, laboratory supplies, software licenses, certification exams, and/or clinical fees.

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