CSC 378 – Interactive Entertainment Engineering

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2. credit units 4  contact hours 6

3. Course Coordinator: Foaad Khosmood

4. Textbook (or other required material): Aaron A. Reed, Creating Interactive Fiction with Inform 7, CENGAGE, 2011.
   a. References: Inform 7 references (inform7 free application), Greenfoot / Java documentation, HTML 5 / Enchant.JS / Javascript documents

5. a. Course Description:
   Project-based, software oriented, introductory study of interactive entertainment. Discussion and evaluation of classic and historically influential games. Exploration of concepts in game design and development. Topics may include interactive storytelling, game physics, game AI, character development, animation, and development of virtual worlds. Projects require significant programming. 3 lectures, 1 laboratory.

   b. Prerequisite: CPE/CSC 102 and CPE/CSC 103, or CPE/CSC 202 and junior standing.

   c. Required/Elective/Selective Elective for CPE, CSC, EE, SE


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6. a. Course Learning Objectives
The student will be able to:
   • Design and develop works of interactive fiction and 2D graphical computer games
   • Articulate the importance of game narrative, game AI and user experience
   • Discuss the game design and development process for independent digital games
   • Use critical vocabulary in the evaluation and criticism of interactive entertainment experiences
   • Work in groups to develop and play test a digital entertainment product
   • Discuss a number of classic games of historical importance
   • Develop games on a variety of platforms using multiple tools

   b. Level at which Student Outcomes are addressed
   (“B” = Basic level, “I” = Intermediate level, “A” = Advanced level)


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7. **Major Topics Covered: (number of lecture hours per)**

- Narrative design in games (3 hours)
- Development of interactive fiction experiences using a high-level programming language (6 hours)
- Game design principles and practices (4 hours)
- Understanding and practice developing for multiple game development environments and transferring projects between them (3 hours)
- Development of games in graphical environments (6 hours)
- User interaction, game packaging and promotion practices (2 hours)
- Classic games (3 hours)