GAME 470 Emerging Gaming Applications

Created by: Qi Zhang
Updated by: Kathleen Mahoney
A. **TITLE:** Emerging Gaming Applications

B. **COURSE NUMBER:** GAME 470

C. **CREDIT HOURS:** (Hours of Lecture, Laboratory, Recitation, Tutorial, Activity)

   # Credit Hours: 3
   # Lecture Hours: 2 per week
   # Lab Hours: per week
   Other: (1) two-hour recitation per week

   Course Length: 15 Weeks

D. **WRITING INTENSIVE COURSE:** No

E. **GER CATEGORY:**

F. **SEMESTER(S) OFFERED:** Spring

G. **COURSE DESCRIPTION:**
This course explores features of the future of gaming, such as immersive gaming, virtual reality, computer graphics, real-time visualization, secondary screens for gaming, smart-glass, cross-play, open-source gaming, game development, augmented reality, as well as mobile gaming and cloud gaming. Through learning the course, the students will have a big picture of the features of the future gaming and the trend of gaming industry development.

H. **PRE-REQUISITES/CO-REQUISITES:**
   a. Pre-requisite(s): Junior/Senior level in GAME Design Program
   b. Co-requisite(s):
   c. Pre- or co-requisite(s):

I. **STUDENT LEARNING OUTCOMES:**

<table>
<thead>
<tr>
<th>Course Student Learning Outcome [SLO]</th>
<th>PSLO</th>
<th>GER</th>
<th>ISLO</th>
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<tbody>
<tr>
<td>a. Demonstrate knowledge of new digital technology development in the gaming industry.</td>
<td>PSLO 5 Synthesize trends, theories, movements and advancements in technology in the development of new ideas. <strong>PSLO 4</strong> Recognize the underlying principles guiding the relevant visual, audio, interactive, and narrative aesthetics of an animation or a game.</td>
<td>2</td>
<td>2[A]</td>
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<tr>
<td>b. Create new gaming features, such as immersive gaming, smart-glass and cloud gaming</td>
<td>PSLO 8 Demonstrate an understanding of recent principles of game design, including, programming, narrative, character and level design.</td>
<td>5</td>
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<tr>
<td>c. Apply advanced technologies of future gaming development</td>
<td>PSLO 8 Demonstrate an understanding of recent principles of game design, including, programming, narrative, character and level design.</td>
<td>5</td>
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**KEY**

<table>
<thead>
<tr>
<th>Institutional Student Learning Outcomes [ISLO]</th>
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<tbody>
<tr>
<td>1 – 5</td>
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<tr>
<td>ISLO #</td>
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| 1      | Communication Skills  
Oral [O], Written [W] |
| 2      | Critical Thinking  
Critical Analysis [CA], Inquiry & Analysis [IA], Problem Solving [PS] |
| 3      | Foundational Skills  
Information Management [IM], Quantitative Lit./Reasoning [QTR] |
| 4      | Social Responsibility  
Ethical Reasoning [ER], Global Learning [GL], Intercultural Knowledge [IK], Teamwork [T] |
| 5      | Industry, Professional, Discipline Specific Knowledge and Skills |

J. **APPLIED LEARNING COMPONENT:** Yes ___ X ___ No ______

K. **TEXTS:** None

L. **REFERENCES:**

M. **EQUIPMENT:**
L. Mac or PC Computer Lab with Microsoft Office, Unity, Visual Studio, and NVidia graphics hardware installed.

N. **GRADING METHOD:** A-F

O. **SUGGESTED MEASUREMENT CRITERIA/METHODS:**
- Assignments
- Projects
- Quizzes
- Participation

P. **DETAILED COURSE OUTLINE:**
1. ! Introduction
   - a. ! Introduction to the high-level overview of future gaming as well as related hardware and software
   - b. ! Introduction to the Computer Lab and related computer graphics support equipment
   - c. ! Syllabus
2. ! Introduce the speedy advancement of digital technology, especially in gaming industry
3. ! Explore features of the future of gaming
4. ! Immersive gaming and virtual reality
5. ! Secondary screens for gaming
6. ! Smart-glass
7. ! Cross-play
8. ! Open-source gaming
9. ! Game development
10. ! Augmented reality
11. ! Cloud gaming
12. The features of the future gaming
13. Trends of gaming industry development
14. Gaming software package review
15. Final Project Due

Q. **LABORATORY OUTLINE:**
   None