

NEW COURSE PROPOSAL

DATE: NOVEMBER 1, 2005

PROGRAM AREA COMPUTER SCIENCE

1. Catalog Description of the Course. *[Follow accepted catalog format.]*

Prefix COMP **Course#** 337 **Title** PERSPECTIVES IN COMPUTER GAMING **Units** (3)

3 hours Lecture per week

☐ **Prerequisites** none

☐ **Corequisites** none

Description This course provides the student with a broad understanding of the world of computer gaming. This includes the evaluation and analysis of the cultural, historical, literary, psychological, and technological impact of computer gaming on society. The course will survey the different types of computer games such as educational, sports, first person shooter, adventure, and strategy, along with an overview of the design, implementation, and testing issues that confront game developers. The student will construct, submit and evaluate several written reports during the semester.

☒ **Gen Ed**

Categories

☐ **Lab Fee Required**

Graded

☐ **CR/NC**

☐ **Repeatable for up to** units

☐ **A - F**

☐ **Optional** (Student's choice)

Total Completions Allowed

☐ **Multiple Enrollment in same semester**

2. Mode of Instruction.

	Units	Hours per Unit	Benchmark Enrollment	Graded Component	CS # (filled in by Dean)
Lecture	3	1	24	<input type="checkbox"/>	
Seminar				<input type="checkbox"/>	
Laboratory				<input type="checkbox"/>	
Activity				<input type="checkbox"/>	

3. Justification and Learning Objectives for the Course. (Indicate whether required or elective, and whether it meets University Writing, and/or Language requirements) *[Use as much space as necessary]*

Justification: Computer gaming is a rapidly growing academic area. It is highly interdisciplinary. This course integrates a wide range of academic areas, such as Art, Business, Mathematics, Psychology and Computer Science. This course is meant to meet the needs of an interdisciplinary curriculum that prepares students with a working knowledge of the different types of computer games and their impact on technology and society. As such it is consistent with the interdisciplinary mission of CSUCI. Throughout the semester the student will construct, submit and evaluate several written reports. This course is an elective and does not meet the University Writing and/or Language requirements.

Learning Objectives:

Upon completion of this course students will be able to:

(Press enter for the next bulleted item)

- Evaluate the purpose of a computer game.
- Evaluate the content and use of a computer game.
- Distinguish the many types and levels of computer games.
- Evaluate the educational value of computer game.
- Sketch the major components of a computer game.
- Explain the importance and role of each component of a computer game.
- Explain how the game "concept" becomes a final product
- Explain and analyze the main principles of computer game design.
- Describe the roles of each of the members of a game design team.
- Explain the impact of computer gaming on society.
- Construct, submit and evaluate written reports on related technical topics.

4. Is this a General Education Course YES ☒ NO ☐

If Yes, indicate GE category and attach GE Criteria Form:

A (English Language, Communication, Critical Thinking)

A-1 Oral Communication ☐

A-2 English Writing ☐

A-3 Critical Thinking ☐

B (Mathematics, Sciences & Technology)

B-1 Physical Sciences ☐

B-2 Life Sciences – Biology ☐

B-3 Mathematics – Mathematics and Applications ☒

B-4 Computers and Information Technology ☒

C (Fine Arts, Literature, Languages & Cultures)

C-1 Art ☐

C-2 Literature Courses ☐

C-3a Language ☐

C-3b Multicultural ☐

D (Social Perspectives)

E (Human Psychological and Physiological Perspectives) ☐

UD Interdisciplinary ☒

5. **Course Content in Outline Form.** *[Be as brief as possible, but use as much space as necessary]*
(Press enter for the next bulleted item)

- History of Games
- Principles of Game Design.
- Game Genres.
- Strategy Games and Adventure Games
- Simulations.
- Sports Games.
- Online Games.
- Level Design and Storytelling.
- Designing the Puzzle.
- The Development Team.
- Educational Impact.
- Societal Issues.
- Psychological Issues.
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Does this course overlap a course offered in your academic program? YES ☐ NO ☒

If YES, what course(s) and provide a justification of the overlap?

Does this course overlap a course offered in another academic area? YES ☐ NO ☒

If YES, what course(s) and provide a justification of the overlap?

Signature of Academic Chair of the other academic area is required on the consultation sheet below.

6. **Cross-listed Courses (Please fill out separate form for each PREFIX)**

List Cross-listed Courses

Signature of Academic Chair(s) of the other academic area(s) is required on the consultation sheet below

Department responsible for staffing:

7. **References.** *[Provide 3 - 5 references on which this course is based and/or support it.]*

(Press enter for the next number)

1. Computer Game Design: Theory and Practice, by Richard Rouse III
Publisher: Wordware Publishing, Inc.; 2nd edition (February 25, 2001)
ISBN: 1556229127.

2. "Introduction to Game Development" by Steve Rabin, published by Charles River Media in June 2005. ISBN: 1584503777

3. Ultimate Game Design: Building Game Worlds, by Tom Meigs; Publisher: McGraw-Hill Osborne Media; 1 edition (May 27, 2003); ISBN: 0072228997

4. Title: The killing zone; As a Sarasota business, the computer gaming is fast, furious and face-to-face.(BUSINESS & MONEY)
Publication: Sarasota Herald Tribune (Newspaper)
Date: September 5, 2004
Publisher: Sarasota Herald-Tribune

5. Dungeons and Dreamers: The Rise of Computer Game Culture from Geek to Chic (Hardcover)
by Brad King, John Borland; Publisher: McGraw-Hill Osborne Media; 1 edition (August 19, 2003); ISBN: 0072228881

8. List Faculty Qualified to Teach This Course.

William Wolfe, Peter Smith, Ivona Grzegorzcyk, AJ Bieszczad, Anna Bieszczad.

9. Frequency.

a. Projected semesters to be offered: Fall ☒ Spring ☒ Summer ☐

10. New Resources Required. YES ☐ NO ☒

If YES, list the resources needed and obtain signatures from the appropriate programs/units on the consultation sheet below.

a. Computer (data processing), audio visual, broadcasting needs, other equipment)

b. Library needs

c. Facility/space needs

11. Will this new course alter any degree, credential, certificate, or minor in your program? YES ☐ NO ☒

If, YES attach a program modification form for all programs affected.

William Wolfe, Peter Smith, AJ Bieszczad
Proposer of Course

9/2/2005
Date

Approvals

Program Chair

Date

General Education Committee Chair

Date

Curriculum Committee Chair

Date

Dean

Date

GE CRITERIA APPROVAL FORM

Course Number and Title: COMP337 Perspectives in Computer Gaming

Faculty member(s) proposing Course: William J. Wolfe

Indicate which of the following GE would be satisfied by this course by marking an “X” on the appropriate lines. Courses may be placed in up to *two* GE categories as appropriate. Upper Division Interdisciplinary GE courses (UDIGE) may be placed in two GE categories in addition to the UDIGE category.

GE Category	
<input type="checkbox"/>	A1: Oral Communication
<input type="checkbox"/>	A2: English Writing
<input type="checkbox"/>	A3: Critical Thinking
<input type="checkbox"/>	B1: Physical Sciences—Chemistry, Physics, Geology, and Earth Sciences
<input type="checkbox"/>	B2: Life Sciences—Biology
<input type="checkbox"/>	B3: Mathematics—Mathematics and Applications
<input checked="" type="checkbox"/>	B4: Computers and Information Technology
<input type="checkbox"/>	C1: Art
<input type="checkbox"/>	C2: Literature
<input type="checkbox"/>	C3a: Language
<input type="checkbox"/>	C3b: Multicultural
<input type="checkbox"/>	D: Social Perspectives
<input type="checkbox"/>	E: Human Physiological and Psychological Perspectives
<input checked="" type="checkbox"/>	Upper Division Interdisciplinary GE
Lab Included? Yes _____ No <u> X </u>	

Please provide a brief explanation of how the proposed course meets each of the criteria for the selected General Education categories.

All Category B Courses:

Criteria B.a. promote the understanding and appreciation of the methodologies of math or science as investigative tools and the limitations of mathematical or scientific endeavors.

This course will promote an appreciation of the science and mathematics required to develop computer games. This involves the statistical issues associated with randomness in game behavior, the logical structure of strategy games, geometric issues in 2-D and 3-D game design, the effects of rendering 3-D objects on a 2-D screen, and the analysis of realistic object interactions in space.

Criteria B.b. present mathematical or scientific knowledge in a historical perspective and the influences of math or science on the development of world civilizations, both past and present.

This course will present the historical context of game development, from simple board games to today's advanced video and internet technology. It will present the historical impact of games, their impact on education, child development and on culture.

Criteria B.c. apply inductive and deductive reasoning processes and explore fallacies and misconceptions in the mathematical or scientific areas.

This course will help students apply inductive and deductive reasoning processes in the context of evaluating the design of computer games. This includes the logic of sequential play, multiplayer actions, interaction with a simulated 3-D world, and various deductive processes that make a game easy or hard to play.

Category B-4 Courses:

Criteria B4: Computers and Information Technology courses shall include use of computers or information technology to solve problems as appropriate.

This course will use computers to demonstrate and analyze various games and related human-computer interaction components. Students will use computers to evaluate the level, genre and purpose of selected computer games.

Category Upper Division Interdisciplinary Requirement

Criteria UDL.a: Emphasize interdisciplinarity by integrating content, ideas, and approaches from two or more disciplines.

This course integrates content, ideas and approaches from computer science, psychology and mathematics, including aspects of Multimedia Art and Design. The students will evaluate the logical design, purpose, and effect of a variety of game genres, including educational games, strategy games, single-person-shooter games, and adventure games. This requires the integration of mathematical reasoning that helps understand the structure of most games, along with the psychological effects that make a game interesting and appealing. It also includes an analysis of the limitations of games because of inherent computer processing limitations, including an appreciation of why some game vendors must build custom designed computers (X-Box, GameBoy, etc.) to accommodate the need for real time interaction.

Criteria UDL.b: Include substantive written work consisting of in-class writing as well as outside class writing of revised prose.

This course requires students to hand in a short essay, that answers specific questions about the assignment, each week for approximately the first 10 weeks of the semester. In addition, there will be a final report that will be assigned in the latter half of the semester which will require submission of a first draft for review by the instructor before the final draft is due.