I. CATALOG INFORMATION

A. Discipline: GAME DESIGN

B. Subject Code and Number: GAME M110

C. Course Title: Game Theory and Mechanics

D. Credit Course units:

   Units: 3

   Lecture Hours per week: 2

   Lab Hours per week : 3

   Variable Units : No

E. Student Learning Hours:

   Lecture Hours:

   Classroom hours: 35 - 35

   Laboratory/Activity Hours:

   Laboratory/Activity Hours 52.5 - 52.5

   Total Combined Hours in a 17.5 week term: 87.5 - 87.5

F. Non-Credit Course hours per week

G. May be taken a total of: [X] 1 [ ] 2 [ ] 3 [ ] 4 time(s) for credit

H. Is the course co-designated (same as) another course: No [X] Yes [ ]
   If YES, designate course Subject Code & Number:

I. Course Description:

   Covers the "rules of play" for game design. Applies the principles of theory and mechanics, as well as contemporary design techniques within the domain of analog game design.

J. Entrance Skills

   *Prerequisite: No [ ] Yes [X] Course(s)
      GAME M101

   *Corequisite: No [X] Yes [ ] Course(s)

   Limitation on Enrollment: No [X] Yes [ ]

   Recommended Preparation: No [ ] Yes [X] Course(s)
      MM M10

   Other: No [X] Yes [ ]

K. Other Catalog Information:

II. COURSE OBJECTIVES

Upon successful completion of the course, a student will be able to:

		Methods of evaluation will be consistent with, but not limited by, the following types or examples.
1	identify and define the basics of game theory as applied to game design.	essays, quizzes, presentations, and critique using program rubric
2	identify and define the basics of game mechanics.	essays, quizzes, presentations, and critique using program rubric
3	employ game mechanics and theory to design, schedule, and construct completed playable analog games.	essays, quizzes, presentations, and critique using program rubric
4	assess digital games and interpret them in analog form.	essays, quizzes, presentations, and critique using program rubric
5	analyze analog and digital games and recognize how they utilized game mechanics and theory.	essays, quizzes, presentations, and critique using program rubric
6	solve common game design issues by employing the appropriate game mechanics and theory.	essays, quizzes, presentations, and critique using program rubric

III. COURSE CONTENT

Estimated %	Topic	Learning Outcomes
Lecture (must total 100%)		
5.00%	Puzzle Design: - Puzzle types and characteristics - Level design in puzzles	1, 2, 3, 4, 5, 6
5.00%	Defining Game Design: - What game design is and is not - Meaningful play - Types of design - Terms in game design - Iterative design	1, 2, 3, 4, 5, 6

	- Ideation	
10.00%	Dissecting Game Design: - Game states - Game views - Players - Avatars - Mechanics - Dynamics - Theme	1, 2, 3, 4, 5, 6
5.00%	Chance and Skill: - The role of chance in games - Mechanics of chance - Balancing probability	1, 2, 3, 4, 5, 6
5.00%	Elements of "Strategic" Skill: - The role of skill in games - Types of decisions - Frequency or anticipation of decisions - Strategy and tactics - Mechanics of skill - Strategic evaluation	1, 2, 3, 4, 5, 6
5.00%	Elements of "Twitch" Skill: - Twitch decision-making - Twitch mechanics	1, 2, 3, 4, 5, 6
5.00%	Balancing Chance and Skill: - Target audience - Play Testing for luck and skill - Exchanging luck and skill - Combining luck and skill	1, 2, 3, 4, 5, 6
20.00%	Game Genres: - Casual games - Serious games - Social Games - Art games - Puzzle games - Card games, etc.	1, 2, 3, 4, 5, 6
5.00%	Narrative Games: - Writer/designers - Story arcs - Narratology and ludology - Types of stories in games - Storytelling methods - Setting and character - Story mechanics	1, 2, 3, 4, 5, 6
5.00%	Adding and Subtracting Mechanics	1, 2, 3, 4, 5, 6
5.00%	Cybernetic Systems and Feedback: - Systems adjustment - Positive and negative feedback	1, 2, 3, 4, 5, 6
5.00%	Multiplayer Mechanics: - Types of multiplayer games - Issues in multiplayer game design	1, 2, 3, 4, 5, 6
	Theory Systems: - Decision trees - Rationality	

10.00%	- Strategies - Exploits - Payoff matrixes - Saddle points - Zero and non-zero sum	1, 2, 3, 4, 5, 6
10.00%	Defining The "Magic Circle": - Games as cultural rhetoric - Games as open culture - Games as cultural resistance - Games as cultural environment	1, 2, 3, 4, 5, 6

Lab (must total 100%)

50.00%	Discussion of game mechanics and theory	1, 2, 3, 4, 5, 6
20.00%	Hands-on creation of analog games	1, 2, 3, 4, 5, 6
20.00%	Exercises related to course content	1, 2, 3, 4, 5, 6
10.00%	Critiques related to projects	1, 2, 3, 4, 5, 6

IV. TYPICAL ASSIGNMENTS
A. Writing assignments

Writing assignments are required. Possible assignments may include, but are not limited to:	
1	write critiques of existing games.
2	play games and evaluate what mechanics and theories were utilized within the game design.
3	create a game design brief which incorporates definitions and examples from lecture and textbook.
4	write critiques and post-mortems on games created in class.

B. Appropriate outside assignments

Appropriate outside assignments are required. Possible assignments may include, but are not limited to:	
1	playtest games and game rules.
2	research commercial games in regards to their game mechanics and theories.
3	participate in optional field trips.
4	produce at least one project towards a portfolio during the course of the semester.

C. Critical thinking assignments

Critical thinking assignments are required. Possible assignments may include, but are not limited to:	
1	compose gameplay critiques.
2	compare and contrast students' work.
3	analyze students' work in the context of game mechanics and theory.
4	schedule and plan for game design production.

V. METHODS OF INSTRUCTION

Methods of instruction may include, but are not limited to:

[X] Distance Education – When any portion of class contact hours is replaced by distance education delivery mode (Complete DE Addendum, Section XV)

[X] Lecture/Discussion

[X] Laboratory/Activity

[X] Other (Specify)
Group work, one-on-one instruction, handouts and written tutorials providing step-by-step project guidelines.

[ ] Optional Field Trips

[ ] Required Field Trips

VI. METHODS OF EVALUATION
Methods of evaluation may include, but are not limited to:

[X] Essay Exam	[X] Classroom Discussion	[X] Skill Demonstration
[X] Problem Solving Exam	[X] Reports/Papers/ Journals	[X] Participation
[X] Objective Exams	[X] Projects	[X] Other (specify)

Detailed project guidelines and Game Design Program rubric.

VII. REPRESENTATIVE TEXTS AND OTHER COURSE MATERIALS

Fullerton, Tracy. Game Design Workshop: A Playcentric Approach to Creating Innovative Games. 3rd ed.   A K Peters/CRC, 2014.

Salen, Katie, and Eric Zimmerman. Rules of Play: Game Design Fundamentals.   MIT, 2003.

Adams, Ernest, and Joris Dormans. Game Mechanics: Advanced Game Design.   New Riders, 2012.

Burgun, Keith. Game Design Theory: A New Philosophy for Understanding Games.   A K Peters/CRC, 2012.

Rouse III, Richard. Game Design: Theory and Practice. 2nd ed.   Jones & Bartlett Learning, 2004.

Brathwaite, Brenda, and Ian Schreiber. Challenges for Game Designers.   Charles River Media, 2008.

VIII. STUDENT MATERIALS FEES

[X] No   [ ] Yes

IX. PARALLEL COURSES

College	Course Number	Course Title	Units
no comparable course found at a CCC, CSU or UC			

X. MINIMUM QUALIFICATIONS

Courses in Disciplines in which Masters Degrees are not expected:
Any bachelor's degree and two years of experience, or an associate degree and six years of experience in Game Design.

XI. ARTICULATION INFORMATION

    A.   Title V Course Classification:

        1. This course is designed to be taken either:

           ☐ Pass/No Pass only (no letter grade possible); or

           [X] Letter grade (P/NP possible at student option)

        2. Degree status:
           Either [X] Associate Degree Applicable; or ☐ Non-associate Degree Applicable

    B.   Moorpark College General Education:

        1. Do you recommend this course for inclusion on the Associate Degree General Education list?
           Yes: ☐ No: [X] If YES, what section(s)?

           ☐ A1 - Natural Sciences - Biological Science

           ☐ A2 - Natural Sciences - Physical Science

           ☐ B1 - Social and Behavioral Sciences - American History/Institutions

           ☐ B2 - Social and Behavioral Sciences - Other Social Behavioral Science

           ☐ C1 - Humanities - Fine or Performing Arts

           ☐ C2 - Humanities - Other Humanities

           ☐ D1 - Language and Rationality - English Composition

           ☐ D2 - Language and Rationality - Communication and Analytical Thinking

           ☐ E1 - Health/Physical Education

           ☐ E2 - PE or Dance

           ☐ F - Ethnic/Gender Studies

    C.   California State University(CSU) Articulation:

        1. Do you recommend this course for transfer credit to CSU?   Yes: [X] No: ☐

        2. If YES do you recommend this course for inclusion on the CSU General Education list?
           Yes: ☐ No: [X] If YES, which area(s)?

           A1 ☐   A2 ☐   A3 ☐   B1 ☐   B2 ☐   B3 ☐   B4 ☐

           C1 ☐   C2 ☐   D1 ☐   D2 ☐   D3 ☐   D4 ☐   D5

☐

D6 ☐   D7 ☐   D8 ☐   D9 ☐   D10 ☐   E ☐

D.   University of California (UC) Articulation:

1. Do you recommend this course for transfer to the UC?   Yes: ☐ No: ☒

2. If YES do you recommend this course for the Intersegmental General
    Education Transfer Curriculum (IGETC)?   Yes: ☐ No: ☒

IGETC Area 1: English Communication

☐   English Composition

☐   Critical Thinking-English Composition

☐   Oral Communication

IGETC Area 2: Mathematical Concepts and Quantitative Reasoning

☐   Mathematical Concepts

IGETC Area 3: Arts and Humanities

☐   Arts

☐   Humanities

IGETC Area 4: Social and Behavioral Sciences

☐   Anthropology and Archaeology

☐   Economics

☐   Ethnic Studies

☐   Gender Studies

☐   Geography

☐   History

☐   Interdisciplinary, Social & Behavioral Sciences

☐   Political Science, Government & Legal Institutions

☐   Psychology

☐   Sociology & Criminology

IGETC Area 5: Physical and Biological Sciences (mark all that apply)

☐   Physical Science Lab or Physical Science Lab only (none-sequence)

☐   Physical Science Lecture only (non-sequence)

☐   Biological Science

☐   Physical Science Courses

☐   Physical Science Lab or Biological Science Lab Only (non-sequence)

☐   Biological Science Courses

☐   Biological Science Lab course

☐   First Science course in a Special sequence

☐ Second Science course in a Special Sequence

☐ Laboratory Activity

☐ Physical Sciences

<u>IGETC Area 6: Language other than English</u>

☐ Languages other than English (UC Requirement Only)

☐ U.S. History, Constitution, and American Ideals (CSU Requirement ONLY)

☐ U.S. History, Constitution, and American Ideals (CSU Requirement ONLY)

XII. REVIEW OF LIBRARY RESOURCES

A. What planned assignment(s) will require library resources and use?

The following assignments require library resources:
Research, using the Library's print and online resources, on such topics as current video games industry trends, techniques, and best practices.

B. Are the currently held library resources sufficient to support the course assignment?

YES: ☒ NO: ☐

If NO, please list additional library resources needed to support this course.

XIII. PREREQUISITE AND/OR COREQUISITE JUSTIFICATION

Requisite Justification for GAME M101

☒ A. Sequential course within a discipline.

1. discuss and define game design and development terms and principles.

2. relate key developments in the history and theory of game design.

3. explore and describe various game genres and game development tools.

4. participate in game-oriented user groups and communities that discuss game design and development issues.

5. draft design plans, character sketches, documentation, and storyboards for proposed games.

6. discuss business standards, market research and outlook, legal principles, ethical concerns, and development processes in the game design and development industry.

7. test and analyze games to determine the quality of rules, interfaces, navigation, performance, play, artistry, and longevity in design and structure.

8. create a specification document that analyzes the audience and sets minimum hardware and software requirements.

9. create basic prototypes of game ideas.

10. evaluate selected commercial game designs, addressing game design and theory, social content, historical significance, and artistic technique.

☐   B. Standard Prerequisite or Corequisite required by universities.

☐   C. Corequisite is linked to companion lecture course.

☐   D. Prerequisite or Corequisite is authorized by legal statute or regulation. Code Section: _____

☐   E. Prerequisite or Corequisite is necessary to protect the students' health and safety.

☐   F. Computation or communication skill is needed.

☐   G. Performance courses: Audition, portfolio, tryouts, etc. needed.

XIV.   WORKPLACE PREPARATION

Required for career technical courses only. A career technical course/program is one with the primary goal to prepare students for employment immediately upon course/program completion, and/or upgrading employment skills.

Detail how the course meets the Secretary of Labors Commission on the Achievement of Necessary Skills (SCANS) areas. (For a description of the competencies and skills with a listing of what students should be able to do, go to: http://www.ncrel.org/sdrs/areas/issues/methods/assment/as7scans.htm)

The course will address the SCANS competency areas:

1. Resources: the students will learn to set goals and time manage those goals to completion; learn what is required in a game design production so that they can plan to allocate resources.

2. Interpersonal: the students will instruct each other about those areas in which they are proficient and assess each other's skills in order to collaborate.

3. Information: the students will organize, interpret and communicate information acquired about game design technologies.

4. Systems: the students will understand the systems, and monitor and correct performance.

5. Technology: the students will choose visual technologies and perform proper procedures in the design production process.

The course also addresses the SCANS skills and personal qualities:

1. Basic Skills: the students will read and write documents, read textbooks, and listen and speak clearly.

2. Thinking Skills: the students will generate creative ideas, make decisions, and reason through and solve problems.

3. Personal Qualities: the students will be responsible, sociable, self-disciplined, honest, and will maintain integrity.

XV. DISTANCE LEARNING COURSE OUTLINE ADDENDUM

1. Mode of Delivery

    [X] Online (course will be delivered 100% online)

    [X] Online with onsite examinations (100% of the instruction will occur online, but examinations and an orientation will be scheduled onsite)

    [X] Online/Hybrid (a percentage of instruction will be held online and the remaining percentage of instruction will be held onsite)
    [ ] Lab activities will be conducted onsite

    [ ] Televideo (Examinations and an orientation will be held onsite)

    [ ] Teleconference

    [ ] Other

2. Need/Justification

    Improve general student access.

3. Describe how instructors teaching this course will ensure regular, effective contact with and among students.

    The instructor will communicate with students through the course management system, using both synchronous tools (such as chat) and asynchronous tools (such as email and discussions).

    Email is a tool primarily used for course-wide updates and individual student contact. Students and the instructor can privately contact each other with questions, concerns, etc. Discussion Forums will be used to disseminate course-wide information and facilitate ongoing collaborative course work. Students may also use the Discussion Forums to solicit help from the instructor and other students. Discussions may also be graded encouraging students to participate in the class. The Calendar and Announcement tools will be used to keep students informed of important events, deadlines, etc. Additional collaborative learning involves using software that allows students and the instructor to collaborate in real-time. These sessions may also be recorded and archived so that students who were not able to participate can also benefit from them. The instructor may talk with individual students or with student groups. Students may also collaborate with each other without the instructor.

4. Describe how instructors teaching this course will involve students in active learning.

    All course materials will be available online. Students will be able to download files and view them offline. Instructor may also provide course content within the

course management system as well as provide links to supplemental publications, articles, and websites.

Quizzes may be issued (using a course-specific timeline) in which students will be tested on their knowledge of the material. Assignments may include exercises through which students explore course concepts using a textbook and/or additional research. Students can submit their assignments online and get feedback from the instructor and/or other students as determined per assignment. This can be an iterative process in that students can receive feedback and then be able to improve their submittal if necessary. Email is a tool primarily used for course-wide updates and individual student contact. Students and the instructor can privately contact each other with questions, concerns, etc. Discussion Forums will be used to disseminate course-wide information and facilitate ongoing collaborative course work. Students may also use the Discussion Forums to solicit help from the instructor and other students. Discussions may also be graded encouraging students to participate in the class. Additional collaborative learning involves using software that allows students and the instructor to collaborate in real-time. These sessions may also be recorded and archived so that students who were not able to participate can also benefit from them. The instructor may talk with individual students or with student groups. Students may also collaborate with each other without the instructor.

5. Explain how instructors teaching this course will provide multiple methods of content representation.

   The instructor can provide text, presentation slides, audio/visual material, assignment examples, tutorials (which may be live or recorded), and links to supplemental publications, articles, and websites.

6. Describe how instructors teaching this course will evaluate student performance.

   Student evaluation will occur via standard techniques such as exercises, projects, quizzes, and a program rubric. The online environment will allow the exercises and projects to be iterative so that students may submit their work online and receive feedback from the instructor. The instructor can then communicate critique and/or solutions to students by posting them online. Additionally, graded discussions can be used to provide additional means of assessment.

XVI. GENERAL EDUCATION COURSE OUTLINE ADDENDUM

GAME M110: Not Applicable

XVII. STUDENT MATERIALS FEE ADDENDUM

GAME M110: Not Applicable

XVIII. REPEATABILITY JUSTIFICATION TITLE 5, SECTION 55041

GAME M110: Not Applicable

XIX. CURRICULUM APPROVAL

Course Information:
   Discipline: GAME DESIGN

   Discipline Code and Number: GAME M110

   Course Revision Category: New Course

Course Proposed By:
    Originating Faculty Tim Samoff 06/18/2015

    Faculty Peer: Svetlana Kasalovic 07/14/2015

    Curriculum Rep: Tim Samoff 06/18/2015

    Department Chair: Lydia Etman 06/30/2015

    Division Dean: Lisa Putnam 08/09/2015

Approved By:
    Curriculum Chair: Jerry Mansfield 09/03/2015

    Executive Vice President: Lori Bennett 10/21/2015

    Articulation Officer: Letrisha Mai 08/19/2015

    Librarian: Mary LaBarge 08/19/2015

Implementation Term and Year: Fall 2016

Approval Dates:
    Approved by Moorpark College Curriculum Committee: 09/01/2015

    Approved by Board of Trustees (if applicable): 10/13/2015

    Approved by State (if applicable): 11/17/2015