Add Course Request

Submitted on: 2012-12-03 15:39:16

1. **COURSE SUBJECT**	DMD
2. **COURSE NUMBER** (OR PROPOSED NUMBER)	2500
3. **COURSE TITLE**	Introduction to Digital Game Design
4. **INITIATING DEPARTMENT or UNIT**	DIgital Media & Design
5. **NAME OF SUBMITTER**	Eva Gorbants
6. **PHONE of SUBMITTER**	Phone: +1 860 486 3016
7. **EMAIL of SUBMITTER**	Email: eva.gorbants@uconn.edu
8. **CONTACT PERSON**	Tim Hunter
9.**UNIT NUMBER of CONTACT PERSON** (U-BOX)	1041
10. **PHONE of contact person**	Phone: 6-2281/6-6765
11. **EMAIL of of contact person**	Email: tim.hunter@uconn.edu
12. Departmental Approval Date	11/05/2012
13. School/College Approval Date	12/03/2012
14. Names and Dates of additional Department and School/College approvals	
15. Proposed Implementation Date	Term: Fall, Year: 2013
16.Offered before next printed catalog is distributed?	Yes
17. **General Education Content Area**	
18. **General Education Skill Code (W/Q).** Any non-W section?	None
19. Terms Offered	Semester: Fall Spring Year: Every_Year
20. Sections	Sections Taught: 1-2
21. Student Number	Students/Sections: 16/section
22. Clarification: 1-2 sections, 16 student/section	
23. **Number of Credits**	03 if VAR Min: Max: credits each term
24. **INSTRUCTIONAL PATTERN** Two 3 hour studio/lab classes per week	
25. Will this course be taught in a language other than English?	No If yes, then name the language:

26. Please list any prerequisites, recommended preparation or suggested preparation: Prerequisites: DMD1000 Digital Foundation DMD1030 Animation Lab	
27. Is Instructor, Dept. Head or Unit **Consent Required**?	No
28. Permissions and Exclusions: Students should take this course in the in their 3rd or 4th semester term	
29. Is this course **repeatable for credit**?	No If yes, total credits allowed: Allow multiple enrollments in same term?
30. **Grading Basis**	Graded
31. If satisfactory/unsatisfactory grading is proposed, please provide **rationale**:	
32. Will the course or any sections of the course be taught as Honors? AsHonors	
33. Additional Details: Other (specify): offered at the Storrs Campus	
34. Special Attributes:	
35. **REGIONAL CAMPUS AVAILABILITY**: The Storrs Campus currently has the digital media faculty and studio/lab facilities available to offer this course. Expansion to Stamford is possible.	
36. PROVIDE THE PROPOSED TITLE AND COMPLETE CATALOG COPY: 2500. Introduction to Digital Game Design Three credits. Two 3-hour studio sessions. Prerequisites: DMD1000 & DMD1030. An introduction to the principles of game design and development. Explore the history of the industry, investigate story and game mechanics.	
37. **RATIONALE** FOR ACTION REQUESTED This course is being added as part of the new curriculum for the Digital Media & Design Department's Digital Game Design & Development track This course is also central to the curriculum of the new Department of Digital Media and Design and essential to creating the major and minor in this field. why the course is appropriate for the 1000 or 2000 level this is an introductory course for the DMD Game Design & Development track which applies basic fundamentals of game mechanics justification for enrollment restrictions the enrollment CAP of 16 is based on available studio/lab space. effects on the regional campuses Currently not offered at the regional campuses. Expansion to the Stamford Campus is planned for the near future.	
38. **SYLLABUS:**	

Online URL: (https://web2.uconn.edu/senateform/request/course_uploads/evg02003-1354312594-Syllabus DMD 2500 Intro_Game Design and Development.docx)

39. **Course Information: ALL General Education courses, including W and Q courses, MUST answer this question**

40. **Goals of General Education: All Courses Proposed for a Gen Ed Content Area MUST answer this question**

41. **Content Area and/or Competency Criteria: ALL General Education courses, including W and Q courses, MUST answer this question.:** Specific Criteria

a. **Arts and Humanities:**
b. **Social Sciences:**
c. **Science and Technology:**
   i. **Laboratory:**
d. **Diversity and Multiculturalism:**
   43. **International:**
e. **Q course:**
f. **W course:**

42. **RESOURCES:**

Does the department/school/program currently have resources to offer the course as proposed
YES
If NO, please explain why and what resources are required to offer the course.

43. **SUPPLEMENTARY INFORMATION**:

ADMIN COMMENT:

Senate approved new course 12/10/12

Instructor: Matthew Worwood

Office Hours: xxxxxx

Office Location: xxxx

Matthew.worwood@uconn.edu

Pre-requisites: DMD1000 & DMD1030

Course#: 2500
Type: Studio

Introduction to Digital Game Design (3 Credits)

This course provides an introduction to the principals of video game design and development. Students will explore the history of the industry, investigate the theory of story, game mechanics and level progression, develop creativity skills that can be applied through an ideation process, and design and develop a 2D video game. Participation for this course will be conducted in a game-based environment.

Class Objectives: The student will be able...

- To reflect on the changes in the video game industry and what this means for the future of gaming.
- To produce a video game prototype.
- To create a video game design document that details an idea for a video game.
- To analyze a video game and recite terminology applied in the gaming world.
- To prepare and deliver pitches for a video game.
- To perform regular evaluations of game ideas and game prototypes, giving productive feedback, which improves an idea and moves a project forward?
- To explain a list of general functions and elements which make up a video game.
- To present a video game project to a panel of industry professionals and/or college faculty.
- To differentiate between an educational and non-educational video game.
- To define the elements which constitute a video game as opposed to an open sandbox.
- To apply ideation skills and problem-solving techniques in the development of an original idea for a video game.
- To achieve familiarity with the advanced principles, terminology, procedures, and practices of 2D game design and production.
- To provide peer-assessments and constructive feedback to follow students.
- To demonstrate a strong understanding for game mechanics and level design.
- To differentiate between genre and its impact in design and play mechanics.
- To analyze game flow and its impact on the level of engagement.
- To explain the function of narration and storytelling in video games.
- To design the game mechanics for a video game.
- To design and map level progression for a video game.

Suggested Course Reading

- Rogers, S. (2010) Level Up!: The Guide to Great Video Game Design. Hoboken, NJ: Wiley, John & Sons.

Course Challenge

Students in this course will be challenged to design and develop a serious video game in response to a ‘Request for Proposal’. As part of this project students will deliver a presentation, create a Game Design Document and produce a prototype (see appendix a).

Course Outline

1. An Introduction to Video Games
2. Story and Mechanics
3. Game Ideation and Production
4. Level Progression
5. Design and Development Analysis
6. Level Design and Game Testing

Assessment

Assessment in the course involves both formative and summative assessments. Formative assessments will be conducted throughout the year as self and peer evaluations. Participation in the course will be evaluated as part of a game-based environment. This includes the final project.

Game Overview

As participants in the video game design class you will assume the role of a game designer. In this role you will be expected to meet certain obligations and be compensated with imaginary gold coins. The goal of the game is to have a sufficient number of gold coins to purchase a final grade. The higher the grade, the more gold coins it will cost.

Classes will become design meetings with interactive and participatory components where you will have an opportunity to earn or lose gold coins as you progress in the course. Your participation and contribution is essential to your success in the game. You will be expected to participate in all design meetings, complete all assignments, meet deadlines, and respond to problems as they arise.

All students will begin with a specified number of gold coins (this amount will represent a maximum grade for participation). Failure to attend class means you are not fulfilling your obligation to participate in discussion and thus, contribute to the overall learning experience of all. Coins will be lost when you miss a deadline, or fail to fulfill one of the elements listed as participation (see appendix b). Additional coins can be earned throughout the length of the game.

Gold Coin Allocation (Grading):

Grades cost is based on the total number of gold coins earned from participation and the challenge project. For example, if the game has a maximum of 148 gold coins and the player earns 110 for their participation, and 20 for their final project. The total is 130 gold coins from an available 148.

130 divided into 148 = 0.88 or 88%. This would purchase an overall B based on the value below.

89-100% = A	88- 79% = B	78-69% = C	68-59% = D	58-49% = E

Scope and Sequence

Lesson	In Session (Class)	Assignment
Week 1	Theory Based • **Course orientation** Review course syllabus • **Review:** http://www.theesa.com/facts/index.asp • **Activity** What is a video game? • **Presentation** History of video games • **Activity** Analyze a selection of classic arcade video games Project Based • **March Mellow Challenge** Team building exercise • **Review Final Project**	**Read:** J. Rutter & J. Bryce. Understanding Digital Games. Ch. 2 History of Digital Games Assignment: Prepare a three-minute presentation about one of the classic arcade games played in class. **Watch:** So you want to be a game designer.
Week 2	Theory Based • **Student Presentations** History of video games • **Watch Video** Video Game Crash of 1983 • **Video Game Genre** Generate a mind map to illustrate video game genre • **Discuss Class Reading**	**Read:** L. Sheldon. Character Development and Storytelling. Ch. 15: Game Types Assignment: Prepare a mind map that illustrates your understanding of video game genres and how they are connected.

	Project Based • **Review Request for Proposal** • **Principals of Brainstorming** Divergent Thinking Technique	
Week 3	Theory Based • **Student Presentations** Video game genres • **Discuss Class Reading** • **What is a Story?** Examine the structure of a story Analyze a selection of story-based video games Project Based • **What Game Engine to Use (Video Presentation)?** • **Review Game Prototype Expectations**	**Read:** The Many Forms of Game Narrative Assignment: Set up a Bubbl.Us account and start a Mind Map of potential ideas for your final project (or establish alternative method of brainstorming).

Week 4	Theory Based • **Student Presentations** • Role-playing video game • **Discuss Class Reading** • **Introduction to Game Mechanics** • **Activity** Present an idea for a video game based on a fairytale Share story and game mechanics • **Introduce Challenge Project** • Discuss Request for Proposal Project Based • **Game Engine Workshop** Introduction to Scratch (2D Game Development)	**Read:** S. Rogers. Ch. 12: The Nuts and Bolts of Game Mechanics Assignment: Write a Game Review Assignment: 2D Video Game Challenge: Create a video game using Scratch.
Week 5	Theory Based • **Discuss Class Reading** • **Introduce Game Design Document (GDD)** What elements are included in a GDD? • **What is level progression?** What is level progression? Create a chart that illustrates the expectations of game flow. Analyze level progression in Call of Duty Project Based • **Elevator Pitch**	**Read:** Level Design: Games Within Games Assignment: Write a Game Review.

	Present initial ideas to group in under two-minutes Share Mind Maps as part of a creativity date	
Week 6	<u>Theory Based</u> • **Discuss Class Reading** • **Self-Assessment** Game Review • **Share Mind Map with Creativity Buddy** • **Level Design Document** Examine level progression in Portal. <u>Project Based</u> • **Game Engine Workshop** Introduction to Game Salad **<u>SUBMIT: Scratch Video Game</u>**	**Review:** Game Design Document **Watch:** Tom Chatfield: 7 Ways games reward the brain. <u>Assignment:</u> Write a one-page overview of your video game idea. <u>Assignment:</u> 2D Video Game Challenge: Create a video game using Scratch.
Week 7	<u>Theory Based</u> • **Discuss Class Reading (Game Design Document)** • **Discuss Class Video** • **Share Mind Map with Creativity Buddy** • **What is level progression?** Analyze level progression in Portal.	**Watch**: Jane McGonigal: Gaming can make a better world. <u>Assignment:</u> Add physics and game controls to an object in Blender.

	Project Based • **Game Engine Workshop** Introduction to Blender (3D Modeling and Game Engine) **SUBMIT: Game Salad Video Game**	
Week 8	Theory Based • **Discuss Class Video** • Analyze a selection of educational video games. • **Creativity Workshop** Convergent Thinking Technique • **Information about individual game pitch** Project Based • **Game Engine Workshop** Introduction to Unity (Skybox and Terrain) **SUBMIT: One Pager** **SUBMIT: Mind Map**	Assignment: Prepare a five-minute presentation of your game idea in response to the RFP.
Week 9	Theory Based • **Individual Pitch** Student pitches individual game ideas. • **Peer-Assessment** The Pitch • **Design Meeting** Organize into design teams.	Assignment: Use fantasy to generate a sun set on Planet Katalina using Blender or Unity.

	• **Roles and Responsibilities** Mind map roles and responsibilities in game design. <u>Project Based</u> • **SKYPE: Video Game Designer** • **Select Group Projects** • **Review Expectations of Production Process**	
Week 10	• **Present Design Team Overview** • **Independent Study Period**	
Week 11	• **Progress Report** • **Independent Study Period**	**Watch:** Game Testing
Week 12	• **Progress Report** • **Independent Study Period** **<u>SUBMIT: Final Mind Map</u>**	
Week 13	• **Progress Report** • **Test Game Prototypes** Play and analyze a game prototype. Provide feedback.	
Week 14	• **Final Presentation** • **Self-Assessment of Final Project** **<u>SUBMIT: Prototype</u>** **<u>SUBMIT: Game Design Document</u>** **<u>SUBMIT: Self-Evaluation</u>**	

Appendix A
(Challenge Rubric)

REQUEST FOR PROPOSAL

Program Area: Science

Proposal: The Digital Media Center at the University of Connecticut is requesting proposals for a video game that promotes a science topic relevant to elementary, middle, or high school students. Projects must identity a topic referenced in the Connecticut State Science Standards.

Program Information: The Digital Media Center at the University of Connecticut is dedicated to advancing and promoting programs of trans-disciplinary instruction and research in the areas of digital media, animation, visualization, and technology as they relate to the areas of engineering, science, business, entertainment and the arts. We are committed to facilitating collaborations and partnerships between students, faculty, industry and government leading to the creation of unique visualizations and digital communications solutions.

Submission: Proposals will be presented on T.B.D via the following components:

- Elevator Pitch
- Game Design Document
- Game Prototype

All proposals will be evaluated using the rubric below.

	Above Expectations (10– 8)	Expectations (7 – 5)	Below Expectations (4 – 1)
Theme	The details outlined in the RFP are an integral component of the story and game mechanics.	The details outlined in the RFP are integrated into the story and play some part in the game mechanics.	The details outlined in the RFP are only mildly referenced in the story and have little integration in the game mechanics.
Game Design Document	The GDD is well organized and visually appealing. The writing is concise and creative with no obvious spelling or grammatical errors. Its front page contains a title and company logo. Detailed images and graphics help illustrate game elements. All the items listed below are included in detail. • Concept Statement, • Game Overview, • Story and Mechanics, • Control Map • Game Progression (level design document), • Concept Art, • Bibliography of science theme.	The GDD is well organized. The writing is concise, but includes some repetition. Its front page contains a title and company logo. Images and graphics are included. All the elements listed below are preset in the document. • Concept Statement, • Game Overview, • Story and Mechanics, • Control Map • Game Progression (level design document), • Concept Art, • Bibliography of science theme.	The GDD is poorly organized. The writing is weak and includes obvious spelling and grammatical errors. A title and company logo is absent from the front page. Little or no images or graphics are used. The document lacks some of the elements listed below. • Concept Statement, • Game Overview, • Story and Mechanics, • Control Map • Game Progression (level design document), • Concept Art, • Bibliography of science theme.
Prototype	The game prototype is in working order. A player is able to experience at least one level, with game mechanics functioning as designed. The game controls are well mapped and provide ease of use for the player. Sound is included and the artwork is advanced for a prototype.	The game prototype is in working order. A player is able to experience at least one level, with the majority of game mechanics functioning as designed. Sound is included.	The game prototype is not working as designed. The game is absent of sound and a player is unable to experience one level.
The Pitch	The student is confident and articulate. They deliver a presentation that excites the audience, identifies a target audience, and demonstrates an understanding for the game	The student is confident. They deliver a presentation that identifies a target audience, demonstrates an understanding for the game industry, but fails to appeal to a publisher because of a weakness,	The student is lacking in confidence and appears disorganized. The presentation fails to identify a target audience, and suggests a lack in understanding for the game industry. No information is included that

	industry, and appeals to a potential publisher by including attractive comparisons to competitive products.	or lack of information in the comparison of competitive products.	would appeal to a potential publisher.

Appendix B
(Participation Check List)

Participation Checklist	Total
• Student presentation of 'Classic' video game was informative and provided a historical perspective of the game.	10 GC
• Student submitted a game review that met the assigned criteria (see game review rubric).	16 GC
• Student submitted a mind map that met the assigned criteria (see mind map rubric).	16 GC
• Student 'played' with a game engine and successfully programmed at least one mesh object.	10 GC
• Student delivered a three-minute elevator pitch that met the assigned criteria (see pitch rubric).	16 GC
• Student was active in class discussions, having watched or read assigned material.	10 GC
• Student met submission deadlines agreed prior to assignment.	10 GC
• Student submitted a one-pager that met the assigned criteria (see one-pager rubric).	10 GC
• Student provided informative progress updates. Sharing what they had learned and any challenges they have overcome.	20 GC

Appendix C
(Video Game Review)

Statements to Consider 1 = Strongly Disagree, 2 = Disagree, 3 = Agree, 4 = Strongly Agree	**Total**
• The review identified the game genre and provided comparisons to similar games.	
• The review was professionally written, describing in detail the mechanics and any story.	
• The review included specifics in the strengths and weakness of the game, offering suggestions for improvement where possible.	
• The review demonstrated an understanding of design principals and applied industry terminology to describe game elements.	

Appendix D
(Mind Map/Creative Thinking)

Statements to Consider 1 = Strongly Disagree, 2 = Disagree, 3 = Agree, 4 = Strongly Agree	**Total**
• The mind maps contained a variety of ideas that indicated the students had focused on quantity as opposed to quality during the early stages of ideation.	
• The mind map contained wild and whacky ideas that indicated the student had welcomed unusual ideas during the early stages of ideation.	
• The mind map made connections, combining and synthesizing existing ideas to produce new ones.	
• The mind map contained ideas related to the science theme	

Appendix E
(One-Pager)

Statements to Consider 1 = Strongly Disagree, 2 = Disagree, 3 = Agree, 4 = Strongly Agree	**Total**
• The one-pager was clear, concise, and contained no spelling mistakes or obvious grammatical errors.	
• The one-pager included information about the target audience and provided a comparison to competitive products indicating the 'potential' success of the project.	
• The one-pager established information about the science topic, how it will be incorporated in the game and what the player will learn.	
• The one-pager provides information about the mechanics, controls and any narration included as a backdrop to the game.	

Appendix F
(Individual Pitch)

Statements to Consider 1 = Strongly Disagree, 2 = Disagree, 3 = Agree, 4 = Strongly Agree	**Total**
• The student demonstrated confidence and comfort in their project idea.	
• The student engaged the audience in their game idea. Delivering a well-prepared performance.	
• The student provided a detailed overview of their game project, including information about the story, mechanics, target audience, and science topic.	
• The student was prepared to answer questions and responded well to feedback and suggestions from peers.	