

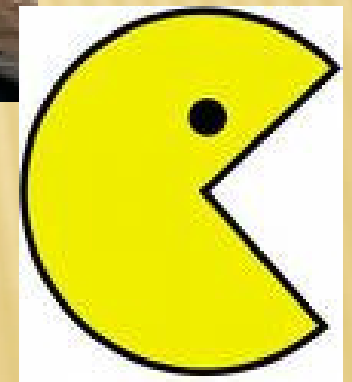
TEACHING VIDEO GAME DEVELOPMENT



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DO YOU KNOW THESE CHARACTERS?



WHY VIDEO GAMES?

- ✘ According to the Entertainment Software Association:
 - + U.S. computer and video game software sales grew 6% in 2007 to \$9.5 billion (tripling sales since 1996)
 - + 65% of American households play computer/video games
 - + The average game player is 35 years old and has been playing games for 13 years.
 - + The average age of the most frequent game purchaser is 40 years old
 - + 40% of all game players are women
 - + 85% of games sold in 2007 were rated E, T or E10+

HOW MUCH CAN I EARN?

| Job Title | Less than 3 yrs. Experience | 3-6 yrs. Experience | Over 6 yrs. Experience |
|-----------------|-----------------------------|---------------------|------------------------|
| Programmer | \$52,989 | \$73,618 | \$90,658 |
| Artist/Animator | \$45,675 | \$61,065 | \$69,457 |
| Designer | \$43,486 | \$54,777 | \$69,813 |
| Writer | \$51,944 | \$61,000 | N/A |
| Tester | \$24,797 | \$29,722 | N/A |

<http://www.allartschools.com/faqs/video-game-design.php>

WHAT WE'LL COVER TODAY

- × Course Summary
- × Where the course “fits in”
- × How to “sell it” – standards etc.
- × Curriculum overview
- × Projects to generate excitement and buzz
- × Potential Issues

VIDEO GAME DEVELOPMENT

During this course students will:

- ✘ Gain experience in many aspects of the growing video game industry
- ✘ Research potential career opportunities in the gaming field
- ✘ Learn to design, develop and market video games
- ✘ Learn the programming skills required to successfully develop a video game

WHERE DOES IT FIT?

- ✘ Can be a Computer course – focusing on the programming curriculum to code the games (Cathy’s focus)
- ✘ Can be a Business Analysis course – focusing on the “old BA/BCA” curriculum (Marla’s focus)
- ✘ Can be a Marketing course – focusing on the industry, careers, advertising and marketing aspects
- ✘ If it’s a full year course, can do it all!

HOW TO SELL IT

- ✘ Emphasize the focus on the learning opportunities provided by video games – “edutainment”
- ✘ Stress – non-violent games only
- ✘ Highlight the many core areas of learning this course covers ...teamwork, English, math and communication skills, problem solving, etc.

HOW TO SELL IT

- × Content addresses many standards - some examples:
 - + CDOS
 - × Investigate career opportunities and college requirements
 - × Describe skills needed for career in game industry
 - × Recognize impact of video game dev. on nat'l economy and opportunity to use video games for learning
 - + ELA
 - × Summarize, analyze, and evaluate, orally and in writing, passages of texts chosen for specific purposes
 - × Write explanations, directions, and essays for an intended audience
 - × Compile, organize and evaluate information, - communicating information designed to inform, explain, and persuade
 - × Demonstrate confidence and poise during presentations , interacting effectively with the audience

HOW TO SELL IT

+ MST Standards

- Math
 - × Read, interpret, and perform operations on rational and integral numbers
 - × Identify 3D shapes from 2D perspectives
 - × Locate objects using the rectangular coordinate system
 - × Organize and display data using appropriate tables, graphs or charts
- Science
 - × Use tools and techniques to gather, analyze, and interpret data
 - × Design a solution and evaluate completed technological designs
 - × Consider object speed, direction, trajectory, gravity and cause & effect relationships
- Technology
 - × Use and maintain technological products and systems
 - × Use computers, applications and programming languages to model a solution to a problem, test and evaluate it
 - × Understand information and communications systems

+ Art – Graphic images - creation and editing

CATHY'S COURSE SUMMARY

- ✘ Part I – The Industry
- ✘ Part II – Developing a Video Game
- ✘ Part III – Careers in the Video Game Industry

CATHY'S COURSE SUMMARY

✘ Part I – “The Industry”

- + History of the industry
- + \$\$ Business of Video Gaming
- + Game Genres – action, adventure, life simulation, role-playing, vehicle simulations, sports, puzzles, music
- + Critiquing Video Games
- + Game Rating System & other government regulations

CATHY'S COURSE SUMMARY

✘ More Part I – “The Industry”

- + Game Platforms – computers, portable, arcade, cell. phones, calculators, DVD, web sites etc...
- + Game Consoles – PlayStation, Wii etc.
- + Edutainment
- + Marketing a new game
- + Many other news topics: Use of Video Gaming in the Sports Industry, Video Games an Olympic Sport?, Professional Gaming Leagues

CATHY'S COURSE SUMMARY

× Part II – “Developing Video Games”

- + “The Development Process” : from idea to store shelf – how does it get there? Developers vs. publishers etc.
- + Intro to Game Programming
 - × Game Design Terminology – objects, sprites, events, actions, sound effects, levels
 - × Using the Internet to find free game “resources”
 - × Use GameMaker to begin programming simple games - GameMaker is a free, simple, graphical game development interface
 - × Build together, then have students “enhance” the game (game must include learning or skill building elements and no violence)
 - × Critique each other’s games, then go back and make adjustments and improvements, and finally present final versions to class
 - × Develop 4 or 5 games this way - increasing the difficulty

GAMEMAKER

The Interface – Click here to demo the
GameMaker interface

Click here to see some examples of games
we've created in class

CATHY'S COURSE SUMMARY

- ✘ Part III – Careers in the Video Game Industry
 - + Research web sites, articles and Internet to target one position and complete a project (ex. PowerPoint that covers the job responsibilities, skills, education required, college options, examples of current job openings)
 - + Guest Speaker or Field Trip – Video Game Dev. Company – ex. Vicarious Visions, Albany

CATHY'S COURSE SUMMARY

✘ Final Project Ideas

- + Students either create or enhance an “edutainment game” geared towards K-6 audience.
- + Students design a game – from concept to packaging, artwork, marketing etc. and present it to “investors”

✘ Time Permitting – isupportlearning.com offers an excellent self-paced game development application. Students acts as interns and learns DarkBasic programming skills.

MARLA'S COURSE SUMMARY

- ✘ Part I – “The Framework of Business”
 - + Evolution of the industry
 - + Purpose
 - + Kinds
 - + Features
 - + Systems Concept

MARLA'S COURSE SUMMARY

- ✘ Part 2 – Universal Activities
 - + Production
 - + Bridging Activities
 - + External Environmental Activities
 - + Finance
 - + Marketing

MARLA'S COURSE SUMMARY

- ✘ Part III - Careers
 - + Outlook
 - + Education
 - + Skills needed

OTHER IDEAS

- ✘ Work with K-6 teachers to “test” our Edutainment games – a Video Game Fair
- ✘ Team up with Marketing class to plan a “video game launch” or present ideas to “investors”
- ✘ Entrepreneurship class judges best presentation
- ✘ Team up with a local video game store – marketing project
- ✘ Team with Advanced Art class to create original graphics for game marketing materials
- ✘ Madden ‘08 tournament – management skills, fundraising, etc.
- ✘ Guest Speaker Ideas: Manager of local video game store, Member of Video Gaming Club, visit from local college that offers Game Design degree

INVALUABLE RESOURCES TO GET YOU GOING

✘ Books

- + "The Game Maker's Apprentice" Game Development for Beginners by Jacob Habgood and Mark Overmars. Excellent game examples.
- + "Game Plan" by Gershenfeld , Loparco & Barajas. It gives a nice overview of the industry and the game development process.
- + Amazon.com – more books than you'll ever need!!

✘ Some of the best Web Sites

- + Industry sites: Gamespot.com, gamasutra.com, cdga.org, ign.com, gamepro.com, nintendo.com, 1up.com, gamershell.com, xbox.com, playstation.com, games.rit.edu
- + Educator resources: www.texasgames.net, www.yoyogames.com
- + Children's web sites for Edutainment research: pbskids.org, nick.com, funschool.kaboose.com, learningplanet.com, thekidzpage.com

ISSUES

- ✘ Getting more girls to enroll in the class??
- ✘ HW/SW – no problem – large, hi-res monitors beneficial
- ✘ “Unblocking “ relevant game sites for our research
- ✘ Half-year course seems too short
- ✘ Legitimate content is covered
- ✘ Inexperienced gaming teachers

Bottom line: Kids love it, there is a ton of information available on the subject, and the career opportunities available in this field are growing rapidly !