

<b>SUBJECT:</b>	Career and Technical Education	<b>CORRELATION</b>
<b>GRADE LEVEL:</b>	9, 10, 11, 12	FLORIDA DEPARTMENT OF EDUCATION
<b>COURSE TITLE:</b>	Game & Simulations Foundations	INSTRUCTIONAL MATERIALS CORRELATION
<b>COURSE CODE:</b>	8208110	COURSE STANDARDS / BENCHMARKS
<b>SUBMISSION TITLE:</b>	<i>Video Game Design Foundations</i> © 2014	
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BENCHMARK CODE	BENCHMARK	LESSONS WHERE BENCHMARK IS DIRECTLY ADDRESSED IN-DEPTH IN MAJOR TOOL (include the student edition and teacher edition with the page numbers of lesson, a link to lesson, or other identifier for easy lookup by reviewers.)
	01.0 Create a game design production plan that describes the game play, outcomes, controls, interface and artistic style of a video game. – The student will be able to:	Text = Printed/Online Textbook, SDG = Printed/Online Software Design Guide
	01.01 Use industry standard game design production documents to create a game design production plan.	Text: 304, 320–327 SDG: 339–344
	02.0 Use information technology tools. – The student will be able to:	
	02.01 Use personal information management (PIM) application	Text: 320–327, 346, Apply Your STEM Knowledge activities at the end of each chapter SDG: 339–369
	02.02 Employ technological tools to expedite workflow including word processing, databases, reports, spreadsheets, multimedia presentations, electronic calendar, contacts, email, and internet applications.	Text: 320–327, 346, Apply Your STEM Knowledge activities at the end of each chapter SDG: 339–369
	03.0 Design and create a playable game. – The student will be able to:	
	03.01 Use a number of computer tools to enhance and ease game programming and artistry.	Text: 327–332 SDG: 29–41, 42–52, 63–73, 85–95, 109–113, 114–120, 129–145, 205–210, 233–237, 261–281, 345–359, 400–415
	03.02 Use a game engine to create a playable game.	SDG: 125–415

	03.03 Use animated objects.	SDG: 81–415
	03.04 Program sound and music to enhance the game experience.	SDG: 233–415
	03.05 Test and debug the completed game.	SDG: 125-415
	04.0 Categorize the different gaming genres.	
	04.01 Research, compare and categorize the different gaming	Text: 64–66 SDG: 29–52
	04.02 Analyze examples of different gaming genres.	Text: 64–66 SDG: 29–52
	04.03 Define and use the necessary vocabulary related to gam	Text: 64–66 SDG: 74–80
	05.0 Categorize different gaming platforms. – The student will be able to:	
	05.01 Research, compare and categorize different gaming plat	Text: 93–105,206–227
	05.02 Analyze the distinctive features of each system.	Text: 206–227

	05.03 Define the target audience for different systems based on	Text: 206–227
	05.04 Define and use the necessary vocabulary related to game	Text: 206–227 SDG: 201–204
	06.0 Understand the historical significance of electronic and non-electronic games. – The student will be able to:	
	06.01 Discuss the history of non-electronic games.	Text: 85–88
	06.02 Describe the history and theory of mainstream and exper	Text: 54–59
	06.03 Explain the historical timeline of electronic games, mark	Text: 60–64, 94–104 SDG: 60
	07.0 Describe the trends in current and next-generation game development. – The student will be able to:	
	07.01 Determine and analyze the significant trends in game de	Text: 100–105 SDG: 60
	07.02 Research and brainstorm the possibilities for the next ge	Text: 104 SDG: 60
	08.0 Understand the business model commonly used in the game development industry. – The student will be able to:	

	08.01 Identify, define and discuss the different ways games are distributed.	Text: 343–366
	08.02 Identify and describe licensing management for different platforms.	Text: 102, 105, 217
	08.03 Discuss the product value and business differences between free-to-play and premium models.	Text: 216–218, 220–221, 223, 224, 347–352, 362
	08.04 Identify successful business models and analyze various revenue streams.	Text: 66–70, 210–213, 218–219, 222–224, 346, 355,
	08.05 Discuss the opportunities available to independent game developers.	Text: 359–360, 361 Case Study
	09.0 Examine and categorize the significant processes in the production of interactive games. – The student will be able to:	
	09.01 Discuss the relationships between publishers, developers, and distributors.	Text: 343–364
	09.02 Identify processes of development including content creation, testing, and distribution.	Text: 32–44, 302–319
	09.03 Explore and describe the effects of globalization on the video game industry.	Text: 366–369 SDG: 377–380
	10.0 Understand the core tasks and challenges that face a video game design team. – The student will be able to:	

	10.01 Identify and define the roles and responsibilities of team	Text: 32–44 SDG:14–16, 27–41, 259–260, 399–415
	10.02 Describe the effects of group dynamics and the importance of communication	Text: 32–44 SDG: 27–41
	10.03 Explore and discuss methods of communications and social media	Text: 26–32 SDG: 21–22, 29–41, 399–415
	10.04 Describe the importance and interrelationship between communication and technology	Text: 302–303, 336 (#4)
	11.0 Identify legal issues that affect games, developers and players. – The student will be able to:	
	11.01 Define and discuss intellectual property and contract law	Text: 276–283
	11.02 Describe legal and liability issues that could affect online gaming	Text: 265–266
	11.03 Compare and contrast government and industry content	Text: 106–108
	12.0 Demonstrate the professional level of written and oral communication required in the game development industry. – The student will be able to:	
	12.01 Use listening, speaking, telecommunication and nonverbal communication	Text: 26–32 SDG: 14–16, 21–22

	12.02 Organize ideas and communicate oral and written messages	Text: 26–29, 320–328, 346 SDG: 399–415
	12.03 Identify, define, and discuss terminology appropriate for	Text: 26–32, 320–328 SDG: 293–297, 339–344, 377–380, 399–415
	12.04 Compose electronic documents used to facilitate formal	Text: 320–327 SDG: 339–369, 399–413
13.0 Investigate career opportunities in the game industry. – The student will be able to:		
	13.01 Use personal assessment tools to identify personal strengths	SDG: 11–13, 399–415
	13.02 Analyze job and career requirements and relate career interests	Text: 19–32, 369–371
	13.03 Describe job requirements for a variety of occupations with	Text: 369–371, 374
	13.04 Identify current employment trends and career opportunities	Text: 369–371, 374
	13.05 Evaluate personal aptitude and skills to match specific educational	Text: 19–32, 369–371, 374 SDG: 11–13, 399–415
	13.06 Develop an educational plan to acquire the skills and resources	Text: 369–371, Gamer Portfolio activity at end of each chapter

14.0 Demonstrate an understanding of the vocabulary for discussing games and play. – The student will be able to:	
14.01 Identify, define, and discuss professional game design and development.	Text: 286–294, 302–319, 378–392
14.02 Identify and define the vocabulary used by game players.	Text: 258–263
15.0 Demonstrate research and information fluency. – The student will be able to:	
15.01 Locate, analyze, process, and organize data from multiple sources.	Text: Apply Your STEM Knowledge activities at the end of each chapter
15.02 Play games to research and collect game play data.	Text: 286–294, 315–318
15.03 Evaluate, analyze and document game styles and playability.	Text: 315–318
15.04 Determine the dramatic elements in games, including character, plot, and setting.	Text: 80–90, 250–257, 313 Case Study,
16.0 Demonstrate an understanding of the techniques used to evaluate game mechanics, game play, flow and game design. – The student will be able to:	
16.01 Test and analyze games to determine the quality of rules and mechanics.	SDG: 14–16, 29–41, 74–80, 136–146, 169–170, 211–232, 238–252, 282–283, 286–288, 316–331, 370–372, 396–415

	16.02 Research and evaluate the game analysis techniques used	Text: 284–294 SDG: 293–297
	16.03 Identify the key elements in a game and make intelligent	Text: 286–294 SDG: 293
	16.04 Evaluate professional reviews and write a critical analysis	Text: 284–285 SDG: 293
17.0 Identify popular games and identify commonality between them. – The student will be able to:		
	17.01 Analyze and deconstruct game environments and interactions	Text: 177–193, 274–275 SDG: 294–295
	17.02 Compare and contrast the top selling video games in terms of	SDG: 293, 297–297
	17.03 Categorize gameplay elements by player type. (killer, tank, support)	Text: 291, 292
18.0 Understand the general procedure and requirements of game design. – The student will be able to:		
	18.01 Describe the design process from conception to production	Text: 302–332 SDG: 396–415
	18.02 Discuss the iterative nature of game and simulation design	Text: 302–319

	18.03 Develop design plans, character sketches, documentation	SDG: 335–415
	19.0 Explore the methods used to create and sustain player immersion. – The student will be able to:	
	19.01 Research and define the term “player immersion”.	Text: 38, 89 SDG: 57–59
	19.02 Explore and explain the factors that create player immersion	Text: 38, 89, 246–250 SDG: 61–62
	19.03 Examine popular games and explain the methods each game uses	SDG: 61–62, 296–297
	20.0 Become familiar with popular game tools such as DirectX, 3DMAX, and different gaming engines. – The student will be able to:	
	20.01 Identify and discuss the popular game development tools	Text: 327–332
	20.02 Identify and discuss popular gaming engines.	Text: 327–332
	20.03 Research and analyze the uses for different game development engines	Text: 327–332
	21.0 Demonstrate language arts knowledge and skills. – The student will be able to:	

	21.01 Locate, comprehend and evaluate key elements of oral a	Text: 26–28
	21.02 Draft, revise, and edit written documents using correct g	Text: 26–28
	21.03 Present information formally and informally for specific	Text: 28
22.0 Demonstrate mathematics knowledge and skills. – The student will be able to:		
	22.01 Demonstrate knowledge of arithmetic operations.	Text: 24, 49 (#3), 75 (#5), 112–113 (#2), 164–165 (#4, 5), 201 (#2, 5), 237 (#3), 269 (#2), 270 (#5), 297 (#3), 336 (#4), 374 (#3)
	22.02 Analyze and apply data and measurements to solve prob	Text: 49 (#3), 112–113 (#2), 162 (#1), 164 (#4), 201 (#2, 5), 270 (#5), 374 (#3)
	22.03 Construct charts/tables/graphs using functions and data	Text: 75 (#5), 112–113 (#2), 165 (#5), 237 (#3), 269 (#2), 297 (#3), 336 (#4),
23.0 Demonstrate science knowledge and skills. – The student will be able to:		
	23.01 Discuss the role of creativity in constructing scientific qu	Text: 274–283
	23.02 Formulate scientifically investigable questions, construct	Text: 74 (#2, 3), 112–113 (#1, 3), 163 (#3), 201 (#3), 237 (#1, 5), 269 (#1), 297 (#5), 336 (#2)