

Game Design and Development (8400/ 36 weeks)

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A Demonstrating Personal Qualities and Abilities GDD.1

- 1 Demonstrate creativity and innovation. GDD.1.1
 - 2 Demonstrate critical thinking and problem solving. GDD.1.2
 - 3 Demonstrate initiative and self-direction. GDD.1.3
 - 4 Demonstrate integrity. GDD.1.4
 - 5 Demonstrate work ethic. GDD.1.5
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B Demonstrating Interpersonal Skills GDD.2

- 6 Demonstrate conflict-resolution skills. GDD.2.6
 - 7 Demonstrate listening and speaking skills. GDD.2.7
 - 8 Demonstrate respect for diversity. GDD.2.8
 - 9 Demonstrate customer service skills. GDD.2.9
 - 10 Collaborate with team members. GDD.2.10
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C Demonstrating Professional Competencies GDD.3

- 11 Demonstrate big-picture thinking. GDD.3.11
- 12 Demonstrate career- and life-management skills. GDD.3.12
- 13 Demonstrate continuous learning and adaptability. GDD.3.13
- 14 Manage time and resources. GDD.3.14
- 15 Demonstrate information-literacy skills. GDD.3.15
- 16 Demonstrate an understanding of information security. GDD.3.16
- 17 Maintain working knowledge of current information-technology (IT) systems. GDD.3.17
- 18 Demonstrate proficiency with technologies, tools, and machines common to a specific occupation. GDD.3.18
- 19 Apply mathematical skills to job-specific tasks. GDD.3.19
- 20 Demonstrate professionalism. GDD.3.20
- 21 Demonstrate reading and writing skills. GDD.3.21
- 22 Demonstrate workplace safety. GDD.3.22

D Examining All Aspects of an Industry GDD.4

- 23 Examine aspects of planning within an industry/organization. GDD.4.23
- 24 Examine aspects of management within an industry/organization. GDD.4.24
- 25 Examine aspects of financial responsibility within an industry/organization. GDD.4.25
- 26 Examine technical and production skills required of workers within an industry/organization. GDD.4.26
- 27 Examine principles of technology that underlie an industry/organization. GDD.4.27
- 28 Examine labor issues related to an industry/organization. GDD.4.28
- 29 Examine community issues related to an industry/organization. GDD.4.29
- 30 Examine health, safety, and environmental issues related to an industry/organization. GDD.4.30

E Addressing Elements of Student Life GDD.5

- 31 Identify the purposes and goals of the student organization. GDD.5.31
- 32 Explain the benefits and responsibilities of membership in the student organization as a student and in professional/civic organizations as an adult. GDD.5.32
- 33 Demonstrate leadership skills through participation in student organization activities, such as meetings, programs, and projects. GDD.5.33
- 34 Identify Internet safety issues and procedures for complying with acceptable use standards. GDD.5.34

F Exploring Work-Based Learning GDD.6

- 36 Reflect on lessons learned during the WBL experience. GDD.6.35
- 37 Explore career opportunities related to the WBL experience. GDD.6.36
- 38 Participate in a WBL experience, when appropriate. GDD.6.37

G Exploring the History, Culture, and Purpose of Games GDD.7

- 39 Define a <i>game</i>. GDD.7.39
- 40 Differentiate between entertainment, serious games, and simulation. GDD.7.40
- 41 Define terms associated with the game industry. GDD.7.41
- 42 Examine the cultural connections and/or sensitivities of games. GDD.7.42
- 43 Analyze the influence of the game industry and serious games on society. GDD.7.43
- 44 Summarize the history of game development. GDD.7.44
- 45 Interpret the significant role of controversy in the development of games. GDD.7.45

H Identifying Ethical Concerns in Game Design GDD.8

- 46 Differentiate between public domain and intellectual property. GDD.8.46
- 47 Adhere to intellectual property laws. GDD.8.47
- 48 Describe ethical issues related to the game industry. GDD.8.48
- 49 Analyze the implications of ethical and unethical behavior. GDD.8.49

I Exploring Game Industry Fundamentals GDD.9

- 50 Identify game genres. GDD.9.50
- 51 Differentiate among the classifications of games. GDD.9.51
- 52 Describe trends in the gaming industry. GDD.9.52
- 53 Describe gaming hardware. GDD.9.53
- 54 Identify organizational components associated with game design. GDD.9.54

J Introducing Games GDD.10

- 55 Explain the foundations of a successful game. GDD.10.55
- 56 Describe the components of game design. GDD.10.56
- 57 Design a game prototype. GDD.10.57
- 58 Create a physical model/mock-up of a game. GDD.10.58
- 59 Develop a production plan for the game design. GDD.10.59
- 60 Perform quality assurance (QA). GDD.10.60
- 61 Examine a game for accessibility. GDD.10.61
- 62 Create user documentation. GDD.10.62

K Examining Narrative Design GDD.11

- 63 Define <i>narrative design</i>. GDD.11.63
- 64 Identify the components of storytelling. GDD.11.64
- 65 Explain perspective. GDD.11.65
- 66 Plan the setting. GDD.11.66
- 67 Evaluate game assets. GDD.11.67
- 68 Design game assets. GDD.11.68
- 69 Analyze a storyboard. GDD.11.69

L Creating Game Art GDD.12

- 70 Animate game assets. GDD.12.70
- 71 Create art for a game. GDD.12.71
- 72 Create a sprite. GDD.12.72
- 73 Edit an image using image editing software. GDD.12.73
- 74 Apply the elements of design. GDD.12.74
- 75 Apply the principles of design. GDD.12.75
- 76 Describe the components of 3D images. GDD.12.76
- 77 Create visual effects (VFX) for games. GDD.12.77

M Incorporating Audio Components in Game Design GDD.13

- 78 Manipulate sounds. GDD.13.78
- 79 Incorporate sounds appropriate to a particular game scenario. GDD.13.79
- 80 Evaluate the role of sound and music. GDD.13.80

N Utilizing Logic and Programming GDD.14

- 81 Identify types of game engines. GDD.14.81
- 82 Identify game engines. GDD.14.82
- 83 Identify game development techniques. GDD.14.83
- 84 Describe different platforms for game development. GDD.14.84
- 85 Apply a script. GDD.14.85

O Building a Game GDD.15

- 86 Complete a game design document. GDD.15.86
- 87 Develop storyboards. GDD.15.87
- 88 Create games. GDD.15.88

P Examining Marketing Strategies GDD.16

- 89 Explain how market segmentation is used to identify a target market. GDD.16.89
- 90 Examine marketing strategies and their importance. GDD.16.90

Q Preparing for Career Opportunities GDD.17

- 91 Compile a multimedia portfolio. GDD.17.91
- 92 Explore careers associated with game design. GDD.17.92