# Description: OSPI logo for white bground

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| **Course: Game Design & Programming 1** | | **Total Framework Hours up to: 90** |
| **CIP Code:** | **Exploratory Preparatory** | **Date Last Modified:** |
| **Career Cluster:** | | **Cluster Pathway:** |

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| **Unit:** | |
| **COMPONENTS AND ASSESSMENTS** | |
| **Performance Assessments:** | |
| **Leadership Alignment:** | |
| ***Standards and Competencies*** | |
| **Standard/Unit:** | |
| **Competencies** | **Total Learning Hours for Unit: 9** |
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| **Unit:** | |
| **COMPONENTS AND ASSESSMENTS** | |
| **Performance Assessments:** | |
| **Leadership Alignment:** | |
| ***Standards and Competencies*** | |
| **Standard/Unit:** | |
| **Competencies** | **Total Learning Hours for Unit: 18** |
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| **Unit:** | |
| **COMPONENTS AND ASSESSMENTS** | |
| **Performance Assessments:** | |
| **Leadership Alignment:** | |
| ***Standards and Competencies*** | |
| **Standard/Unit:** | |
| **Competencies** | **Total Learning Hours for Unit: 18** |
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| **Unit:** | |
| **COMPONENTS AND ASSESSMENTS** | |
| **Performance Assessments:** | |
| **Leadership Alignment:** | |
| ***Standards and Competencies*** | |
| **Standard/Unit:** | |
| **Competencies** | **Total Learning Hours for Unit: 18** |
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| **Unit:** | |
| **COMPONENTS AND ASSESSMENTS** | |
| **Performance Assessments:** | |
| **Leadership Alignment:** | |
| ***Standards and Competencies*** | |
| **Standard/Unit:** | |
| **Competencies** | **Total Learning Hours for Unit: 27** |
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| ***Aligned Washington State Standards*** | | | |
| **Arts** |  | | |
| **Computer Science** |  | | |
| **Educational Technology** |  | | |
| **Health and Fitness** |  | | |
| **Language** |  | | |
| **Math** |  | | |
| **Reading** |  | | |
| **Science** |  | | |
| **Social Studies** |  | | |
| **Speaking and Listening** |  | | |
| **Writing** |  | | |
| ***21st Century Skills*** | | | |
| Check those that students will demonstrate in this course: | | | |
| **LEARNING & INNOVATION**  **Creativity and Innovation**  Think Creatively  Work Creatively with Others  Implement Innovations  **Critical Thinking and Problem Solving**  Reason Effectively  **U**se Systems Thinking  Make Judgments and Decisions  Solve Problems  **Communication and Collaboration**  Communicate Clearly  Collaborate with Others | | **INFORMATION, MEDIA & TECHNOLOGY SKILLS**  **Information Literacy**  Access and Evaluate Information  Use and Manage Information  **Media Literacy**  Analyze Media  Create Media Products  **Information, Communications and Technology  (ICT Literacy)**  Apply Technology Effectively | **LIFE & CAREER SKILLS**  **Flexibility and Adaptability**  Adapt to Change  Be Flexible  **Initiative and Self-Direction**  Manage Goals and Time  Work Independently  Be Self-Directed Learners  **Social and Cross-Cultural**  Interact Effectively with Others  Work Effectively in Diverse Teams  **Productivity and Accountability**  Manage Projects  Produce Results  **Leadership and Responsibility**  Guide and Lead Others  Be Responsible to Others |

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|  | **Hours** | **Summative Assessments** | **Design** | **Development** | **Collaboration** |
| Unit 1 | 6:50 / 10 | Critique / review of a good but simple existing game using industry accepted evaluative tools (Gibson’s Layered Tetrad and Formal Elements). | Elements of Games  Playtesting  Theory – what are games for, why are they important. |  | Team roles  Managing time  Listening |
| Unit 2 | 13:40 / 20 | Paper prototype of a game that tries to “change the world” (given a general problem as a prompt). | Design cycle  Third layer of layered tetrad – social layer, designer’s powers and responsibility. | Paper prototypes |  |
| Unit 3 | 13:40 / 20 | Document a game mechanic in an algorithm.  Annotated code from a simple game built in class.  Design and pseudocode for an enhancement to the game. | Design & develop a mechanic | Algorithms  Pseudocode  Block based programming  Intro to C# / Rider | Pair programming |
| Unit 4 | 13:40 / 20 | Create a simple animated sprite (about at the level of the characters in Pac-Man) from a concept.  In a small team, develop a character concept. Then either create the animation art or design (with pseudocode) a Unity script to implement the core mechanics related to the character. |  | Intro to sprite creation tools  Intro to Git and GitHub | Time management  Work division  Accountability to team |
| Unit 5 | 20:30 / 30 | Team project to produce a digital prototype of an engaging set of mechanics for a game concept developed by the team – with at least two playtest iterations. |  | Documentation | Project assessment |