



Board/Authority Authorized Course Game Design 10

School District/Independent School Authority Name: Kwátsktnéws ne Secwepemcúl'ecw	School District/Independent School Authority Number (e.g. SD43, Authority #432): School District No. 83
Developed by: Brad Hampel	Date Developed: April 15, 2025
School Name: Salmon Arm Secondary School	Principal's Name: Mr. Rob Cadden
Superintendent Approval Date (for School Districts only):	Superintendent Signature (for School Districts only):
Board/Authority Approval Date:	Board/Authority Chair Signature:
Course Name: Game Design 10	Grade Level of Course: 10
Number of Course Credits: 4	Number of Hours of Instruction: 120

Board/Authority Prerequisite(s):

None

Special Training, Facilities or Equipment Required:

none - our computer room 261 is fully equipped to run this course

Course Synopsis:

Game Design 10 introduces students to the foundational principles and practices of the game development process, providing a strong educational platform for further study or career exploration in this dynamic, fast-growing field. Through hands-on learning and project-based

activities, students will explore both the artistic and programming sides of game creation. They will engage in tasks such as research, digital art and design, animation, coding, and interface development while examining what makes a game engaging and successful.

Throughout the course, students will work collaboratively to conceptualize, design, and build a basic game, applying principles of design thinking, problem-solving, and creative expression. They will gain proficiency in industry-relevant tools and software, including Adobe Photoshop, Illustrator, Character Animator, Clickteam Fusion, Blender, Unity, C#, Godot, Visual Studio, JavaScript, HTML, and related technologies. By the end of the course, students will have developed a foundational understanding of game development workflows and essential technical and creative skills to support their continued learning in digital media and computer science. This course will students with the skills and abilities necessary for success in Game Design 11 and 12.

Goals and Rationale:

Goals

- Develop an understanding of the game development process from conception to creation
- Develop skills specific to the art and science behind game development including content creation, graphic and art design, computer programming, editing and publishing
- Develop the understanding and skills to design personal and culturally expressive art and programming
- Develop competencies such as creative thinking, design and communication
 - Develop students social and academic skills
 - Develop and help students become creators NOT just consumers of interesting and exciting things
 - Provides opportunities for high-level problem solving, conflict resolution and strategic thinking skills

Rationale

Game Design 11 and 12 have been a success at our school, and we would like to offer a grade 10 level of this course. The proposal is that game design 10 would be a STEM course that allows students an opportunity to develop skills in the science, technology, engineering, mathematics and arts spheres in our school, using the existing resources of our school. This course has the unique ability to lay the foundation of game design concepts with programming and design. It is in essence, it could be considered the perfect blend of design and creation, and gives SAS the ability to offer a series of courses that focuses students on the concepts of **creation** over consumption.

But why is this important? The gaming industry in the world is expected to be a 500+ billion dollar industry by 2030, and game designers and their related fields have starting salaries of 100K+. We want to give the students at SAS an opportunity to experience the excitement and passion of game creation that has the potential to ignite a flame for a future career in this art. The video game industry is massive – with jobs all across the globe, and there are so many universities and colleges running programs to help students build the skills necessary in this exciting and developing field.

Indigenous Worldviews and Perspectives:

Declaration of First Peoples Principles of Learning

- Learning is holistic, reflexive, reflective, experiential, and relational (focused on connectedness, on reciprocal relationships, and a sense of place). Game Design 10 will help students focus on a collaborative learning environment.
- Learning ultimately supports the well-being of the self, the family, the community, the land, the spirits, and the ancestors – Game Design 10 students will gain confidence, and become more aware and involved members of our community
- Learning involves patience and time. Game Design 10 students will be allowed to make mistakes, and learn from them as well as support each other in finding solutions to their challenges

Declaration of Indigenous Worldviews and Perspectives

The Power of Story

Implications for Educational Practice

Learn some of the traditional stories told within the local Aboriginal community. Then use them as a touchstone for students when applicable “teachable moments” arise. Give students opportunities to apply and demonstrate the skills associated with oral storytelling: memorize, internalize, and present (re-tell exactly). During game design 10, students benefit from opportunities to tell their own experiential stories and listen and respond to those of peers. Metaphor, analogy, example, allusion, humour, surprise, formulaic phrasing, etc. are storytelling devices that can be applied when explaining almost any non-fiction concept. We will make an effort to use devices of this sort in all subject areas and to draw upon stories of the local Aboriginal community

Engagement with the Land, Nature, the Outdoors

Implications for Educational Practice

Students in game design 10 will have opportunities to get interested and engaged with the natural world immediately available (place-based education in the area near our school). Illustrations using locally observable examples and phenomena, physical education activities, homework assignments, and student projects are examples of opportunities to promote this type of engagement. Plan and organize to take instruction and learning outdoors where possible, organizing instructional planning to facilitate this. Explore team leadership and the use of resources such as skilled Aboriginal community members and third-party outdoor education specialists to facilitate and help deal with the challenges associated with leaving the confines of the school (e.g., the need for equipment, expertise in outdoor environments, risk management, transportation).

Assessment and Evaluation

Formative Assessment:

- Tutorials and practice exercises
- Journals used to document experiential learning
- Self-reporting
- Peer and self-assessment

Summative Assessment:

- Student teacher conferencing and feedback

Student demonstrations of ability which can show evidence of knowledge and understanding.

BIG IDEAS

The [design cycle](#) is an ongoing reflective process.

Personal design choices require self-exploration, collaboration, and evaluation and refinement of skills.

Tools and technologies can be adapted for specific purposes.

Learning Standards

Curricular Competencies	Content
<i>Students are expected to do the following:</i> Applied Design <i>Understanding context</i> - Conduct user-centred research to understand design opportunities and barriers <i>Defining</i> - Establish a point of view for a chosen design opportunity - Identify potential users, intended impact, and possible unintended negative consequences - Make inferences about premises and constraints that define the design space <i>Ideating</i> - Identify gaps to explore a design space - Generate ideas and add to others' ideas to create possibilities, and prioritize them for prototyping	<i>Students are expected to know the following:</i> - develop entry-level pathways for exploring game design - incorporate, understand, and use the elements & principles of design - appreciate the ethical, moral, and legal considerations associated with using game development technology for image, video, and sound development - establish basic, fundamental skills in game theory, pre-production techniques, and storytelling - shape a foundational 2D or 3D model and incorporate it into a game - using a hands-on experience to create a video game - create front-end game interfaces and begin specialized coding, game art or level design. - establish playtesting of a designed game - design game environments and characters

• Critically analyze how competing social, ethical, and sustainability considerations impact designed solutions to meet global needs for preferred futures • Work with users throughout the design process <i>Prototyping</i> • Identify and apply sources of inspiration and information • Choose an appropriate form, scale, and level of detail for prototyping, and plan procedures for prototyping multiple ideas • Analyze the design for the life cycle and evaluate its impacts • Construct prototypes, making changes to tools, materials, and procedures as needed • Record iterations of prototyping <i>Testing</i> • Identify feedback most needed and possible sources of feedback • Develop an appropriate test of the prototype • Collect feedback to critically evaluate design and make changes to product design or processes • Iterate the prototype or abandon the design idea <i>Making</i> • Identify appropriate tools, technologies, materials, processes, and time needed for production • Use project management processes when working individually or collaboratively to coordinate production <i>Sharing</i> • Share progress while creating to increase opportunities for feedback • Decide on how and with whom to share or promote their product, creativity, and, if applicable, intellectual property • Consider how others might build upon the design concept	• develop a storyboard and create art • apply critical thinking and creative expression techniques • learn and apply fundamental programming skills • appreciate key characteristics and artistic styling in media artworks to explore multiple viewpoints and to explore the First Peoples perspectives in Canada • understand game design presentation skills for potential clients
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- Critically reflect on their design thinking and processes, and identify new design goals
- Assess ability to work effectively both as individuals and collaboratively while implementing project management processes

Applied Skills

Apply safety procedures for themselves, co-workers, and users in both physical and digital environments

Identify and assess skills needed for design interests, and develop specific plans to learn or refine them over time

Applied Technologies

Explore existing, new, and emerging tools, [technologies](#), and systems to evaluate their suitability for their design interests

Evaluate impacts, including unintended negative consequences, of choices made about technology use

Analyze the role technologies play in societal change

Examine how cultural beliefs, values, and ethical positions affect the development and use of technologies