Provincial Skills Canada Competition 2025

Contest Description
Edmonton Expo Centre, Edmonton
May 7 & May 8, 2025

EVENT: 3D Digital Game Art	**LEVEL:** Post Secondary / Secondary
EQUIPMENT DROP OFF, SET-UP AND TESTING **MAY 6:** 4:00PM – 5:30PM	**LOCATION:** Hall B Edmonton Expo Centre, Edmonton
COMPETITION START & END TIMES: **MAY 7:** 8:00 AM – 5:00 PM **MAY 8:** 8:00 AM – 12:30PM (Detailed schedule below)	**REGIONALIZED:** NO
DURATION: 13.5 hrs. (over 2 days)	**WORLD SKILLS TRADE #:** 50

Please Note: This document is subject to change as competition information is updated. Competitors are responsible for staying up to date with the most recent information. Check the footer for last updated date. Changes will be highlighted in yellow.

GENERAL DESCRIPTION
https://www.skillscompetencescanada.com/en/skill_area/3d-digital-game-art-technology-careers-skills-competences-canada/.
3D Digital Game Art is a post-secondary competition only Nationally. The competitor that moves onto Team Alberta, will be competing at a post-secondary level including post-secondary level projects.

Purpose of the Challenge:
To provide competitors an opportunity to demonstrate their knowledge of 3D Digital Game Art. This competition simulates real world production from concept to delivery.

Skills and Knowledge to be Tested:
- Interpretation of Design Brief
- Concept Art
- 3D Modelling – Hard Surface and Sculpting
- UV Unwrapping & Texturing Objects of a Variety of Detail Levels
- Scene Composition and Lighting
- Rigging and Animation of Assets
- Importing Assets and Testing Functionality in Game Engine

- Organization & File Management
- Exporting & Uploading Files

Project:
To reflect the process used in the 3D digital art industry, the project will be structured in duration and required form. Examples of forms might include gaming, animation, movies, instruction, advertising, business, re-enactments, or simulations. The competition is completed as an individual. The final project files must be submitted and remain with Skills Canada Alberta, but students are allowed to take their completed project files at the end of the event. All project submissions are owned by the competitors, but the competitor acknowledges that submissions can be used to publicize and raise awareness of the Skills movement through Skills Canada Alberta media platforms.

Days of Competition - You are asked to complete the Concept Art module prior to the contest and arrive with a completed file in the requested format. The two days of competition will be broken into modules for a total of 13.5 hours. Day 1 will start with the submission of your concept art prepared prior to competition. Once your art is submitted you will begin the modelling module, which will include hard surface modelling and sculpting tasks, followed by the UV unwrapping & texturing module. Day 2 will begin with the animation module and end with the game engine module.

Additional Competition Information and Expectations:

1. Nowhere within the models or rendering should the name of the students, or their school brand be present. *Competitors must be able to export their models with animations to be placed within their game engine of choice within the time allowed* so that final judging can commence at 12:30 pm on Day 2 of competition.
2. The competitor will work independently. Instructors and/or observers will give no assistance and are not allowed in the competition area except with the permission of the Provincial Technical Committee (PTC). **This also means that AI is not to be used for any module of the competition.**
3. Judging will begin during Day 1 for the concept art module, after Day 1 for the modelling, uv, and texturing modules, and at the conclusion of the competition on Day 2. Judges, where possible, will prepare brief reflective comments that may be shared with teams via email after the competition. This feedback is not guaranteed as judges return to very busy work schedules after the competition concludes and judging is a very time-consuming task.
4. While this is an extremely safe working environment, there are environmental stresses. Students should bring layered clothing to allow for heat or cold, earbuds or headphones that allow for quiet or for the playing of music, and anything else they may feel will help them to sit for two days at a computer, in a folding chair, in a 'large hall' environment.

SCHEDULE

Day 1

8:00 AM – 8:15 AM	Project details provided and Concept Art submitted.
8:15 AM – 12:00 PM	Production Time
12:00 PM – 12:45 PM	Lunch
12:45 PM – 5:00 PM	Production Time

Day 2

8:00 AM – 12:30 PM	Production Time
12:30 PM	Competition ends and students submit their final products. Game engine submissions will be judged on your workstation. You will leave for lunch and come back to clear your space when judging is done. Judging is anticipated to take 1 hour. In the case you return, and judging is not complete you will be granted entrance to the space when game engine scores are finalized.

Equipment and Materials

Equipment and Materials supplied by the Committee:

- Table and Chair
- Secondary monitor for showcasing your work

Equipment and Materials Competitors Must Supply:

- *Competitors are required to bring their own device and software for the competition*. Each competitor can choose their own device and software, so their workflow and process are what they are familiar with.
- If competitors are bringing a computer or laptop from their school (instead of their personal computer), please ensure that the computer is unlocked so documents and possibly software

can be saved/installed to the hard drive and technology support can be provided onsite. This may require access to CMOS settings.

- Students may bring one computer and one spare machine. Your spare machine is only to be used in case of primary device failure!
- Competitors must provide their own power bar and extension cords. Spares **may** be available but cannot be relied upon.

Recommended Minimum Hardware Requirements:

- Intel i7 CPU (10 series or higher) or AMD Ryzen 5 CPU (5000 series or higher)
- 1 TB HD
- 16GB RAM (DDR4 or higher)
- Dedicated video card (recommended RTX20-series or above / ray tracing compatible) **with multiple monitor capabilities. We are showcasing your work through a secondary external monitor. Your machine must be capable of connecting to the provided monitor. Cables to connect to the external display for showcasing your work will be provided. (HDMI or DisplayPort)**
- Flat Panel Display 1920 X 1080
- Operating System – Windows 10 or 11 64 Bit
- Wi-Fi enabled computer system

Suggested software (recommended versions in brackets)**:**

- 3D Software : 3D Studio Max (2023+), Maya (2023+), Blender (4.2+), Zbrush (2022+)
- Texturing Software: Substance Painter, Marmoset Toolbag (4+)
- Concept Art: Krita, Adobe Photoshop, Ibis Paint, Procreate
- Game Engine: Unreal Engine (5.4+), Unity (2023+)

Additional Equipment and material suggested:

- Tablet (Driver compatible with your system already installed)
- Headphones
- Pencils and erasers

Competitors are required to contact the technical chair by **April 21, 2025**, at david.brown@grasslands.ab.ca to advise the Committee what software they will be using if it is not listed above. Competitors should be prepared to use the software provided by the committee if installing their desired software is unsuccessful.

Bring Your Own Device (BYOD) Information

IMPORTANT: Competitors are required to bring their own device and software that meets or exceeds the stated requirements for their competition. Each competitor can choose their own device and software, so their workflow and process are what they are familiar with. If competitors are bringing a computer or laptop from their school (instead of their personal computer), please ensure that the computer is unlocked allowing for USB sticks, documents and possibly software to be saved/installed to the hard drive and IT support can be properly provided onsite. This may require administrator privileges to access the CMOS settings. All USB sticks provided for competition use will be cleared and inspected prior to being used.

Note: Computers must remain inside the competition area for the duration of the competition from the time of equipment drop-off to when the competition ends on Day 2 (including overnight). Competitors may supply their own locking cables if they wish.

Equipment Set-up and Testing (for BYOD events)

Before the Opening Ceremonies and registration, students who are competing in technology-based events that are a BYOD event will be given an opportunity to set up and test their equipment to ensure their equipment is fully functional and networked (where required) prior to the start of the competition. Only accredited students and educators will be permitted into the competition site for equipment drop off and testing.

Equipment Set-Up and Testing will be held on Tuesday May 6, 2025, at 4:00pm.

Students who miss the equipment and setup testing opportunity will need to set up their equipment AFTER the mandatory COMPETITOR ORIENTATION time on the day of competition. Any time that is required to set up and test their equipment on the competition day will be part of their overall competition time. The competition time for these competitors will NOT be extended.

Example Project

An example project will be provided to help competitors understand the requirements of the competition test project allowing for practice of the necessary skills needed for the event. Alongside the practice project, competitors will also be given the test project theme, and concept art requirements (to be done before competition start) in the form of a design brief. The example project and design brief will be a separate document posted at least 3 months before the competition begins.

Clothing Requirement
Appropriate work clothing must be worn to compete. All clothing must be neat and clean and free of rips and tears. Casual wear such as shorts will not be permitted. Close Toed Shoes must be worn. **No** visible school name or logo on any clothing worn during the competition.

SAFETY
The health, safety, and welfare of all individuals involved with Skills Canada Alberta are of vital importance. Safety is a condition of participation with Skills Canada Alberta and shall not be sacrificed for the sake of expediency. At the discretion of the judges and technical committees, any competitor can be denied the right to participate should they not have the required proper safety equipment and/or act in an unsafe manner that can cause harm to themselves or others.

JUDGING CRITERIA

Point Breakdown: Total / 100%
The final engine submission, texture maps, and models from each competitor will be viewed and assessed individually by the judges. Tabulation sheets will be given to the members of the PTC for verification of scores. In the event of a tie, judges will be asked to confer and come to a consensus on the winners. Judges will direct any questions to members of the PTC only.

NOTE: AI cannot be used to support any of the work to be completed in this competition. Also, any references used for your work must be properly credited in your submissions. Using AI or failing to credit your references could result in disqualification.

Task Breakdown:
Concept Art (12%)
3D Modelling (30% total)
- Hard Surface Models (18%)
- Sculpted Model (12%)

UV Mapping & Texturing (23% total)
- UV Maps (8%)
- Textures (15%)

Animation & Rigging (13%)
Exporting Models & Importing into Game Engine (12%)
Work Organization & Management (proper naming, hierarchy organization, etc.) (5%)
Communication (completion of the module work log using the provided template) (5%)
Total: 100%

Ties

Tiebreaker #1: The individual with the highest score in the hard surface modelling task Criteria will be declared the winner.

Tiebreaker #2: If there is also a tie in the hard surface modelling task, then the highest score in the texturing task will be declared the winner.

Tiebreaker #3: If there is also a tie in the texturing task then the highest score in the animation and rigging task will be declared the winner.

Rubric

Marks for each assessed objective are shown in brackets.

Module 1 – Concept Art	12%
• Concept art is in the style of the design brief. (2) • Concept art is clearly labelled and illustrated in 3 views as requested in the brief. (3) • Concept art demonstrates proper proportions. (2) • The final concept features shading techniques to represent form of the object. (2) • Color has been employed to denote potential materials used in the scene. (3)	1__ 2__ 3__ 4__ 5__
Module 2 - Modelling	30%
Hard Surface • Use of hard surface modelling techniques to achieve results. (Proper use of edge loops, edge flow is consistent, topology makes sense for the asset created, extends into game optimization techniques to manage poly count) (10) • Appropriate distribution of polys under provided triangle count (ex: uses more polygons where details are required) (2)	1__2__3__4__5__

● No Ngons, clean unified geometry, mesh intersections are kept to a minimum (2) ● Designs conform to the design brief (2) ● Uses provided references to remain consistent to the provided brief (2) Sculpting ● Uses digital sculpting techniques to achieve required results. (5) ● Low poly version of the sculpt produced (Retopology) (5) ● Designs conform to the design brief (2)	
Module 3 – UV unwrapping	8%
● The UV islands are proportional to the corresponding areas on the model. (2) ● Map distortions are managed and kept to a minimum. (2) ● Seams are kept to a minimum and hidden as much as possible on the object. (2) ● Texel density is even across the UV space and only scaled when necessary (2)	1__ 2__ 3__ 4__5__

Module 4 - Textures	15%
• Textures created accurately depict the story behind the asset (ex: asset is usually found in a wet cave, so moisture buildup is shown, plant growth, shiny vs matte areas, wear on edges, use of maps to generate breaks and cracks) (6) • Textures describe materials correctly. (Wood looks like wood, etc.) (2) • Texture looks seamless on model, no obvious joins or break in texture. (2) • Texture is consistent with design specifications and conform to the overall art style of the project. (2) • A variety of physical materials have been represented, e.g., wood, plastic, metal, fabric, skin, hair. (2) • Multiple maps have been used, Normal, transparency, etc. (1)	1__ 2__ 3__ 4__ 5__
Module 5 - Rigging & Animation	13%
• The model has been rigged for animation, including proper controls to be used by the animator. (5) • Joints are placed in appropriate positions for topology of object. (1) • Proper use of the principles of animation (2) • The animation adheres to the design brief and supports the story of the asset (ex: chain swings believably as it drapes from a statue perched on a roof) (3) • The animation must loop. The loop is continuous with no breaks. (2)	1__ 2__3__4__5__

Module 6 – Exporting Models and Importing to Game Engine	12%
• Models open and view without errors in game engine (materials are set up properly, models have no odd shading artifacts, etc.) (4) • Animations are properly exported from animation software and imported into game engine. (3) • Animation plays when play in editor mode is started. (1) • Final scene uses lighting to enhance features of the required scene. (4)	1__ 2__ 3__4__5__
Work Organization & Management	5%
• Proper naming conventions are used in all submissions provided. (ex: mesh names usually end with _geo, textures use _tx, materials are tagged with _M or M_ or _mat or mat_ or _shd) (2) NOTE: These vary by studio, instructor, etc. Therefore what you choose to use is up to you, but all things must be tagged appropriately • Naming style provided is used to submit assets (usually competitor name_modulenumber_assetname.fileext) (1) • Asset list is provided for each module using the template provided. (2)	
Communication	5%
• Module work logs are completed and provided for each module submission using the template provided. (1 for each module completed onsite)	
TOTAL	**100%**

ADDITIONAL INFORMATION

Skills Canada Alberta Regional and Provincial Rules and Regulations
Regional and Provincial Rules and Regulations

Project Change at the Competition
Where a Test Project has been circulated to competitors in advance, the PTC can change the project up to a maximum of 30% of the work content for the competition.

Competitor Registration
Registration for Provincial Skills Canada Competition (PSCC) will open online on January 15, 2025 @8:30 AM. Please refer to this competitions event page for additional registration and competition information: https://skillsalberta.com/competition/

Lunch
Lunch for accredited competitors will be provided by Skills Canada Alberta.

Parking & Venue Maps
Parking is FREE for all attendees.
http://edmontonexpocentre.com/attend/parking/

Opening Ceremonies / Competitor Registration
Opening Ceremonies for the PSCC will take place on Tuesday May 6, 2025, at 6:00 pm in Hall D of the Edmonton EXPO Centre. Admission is free, and everyone is welcome to attend. It is important to note that competitor registration will open immediately following the Opening Ceremonies.

Awards Ceremony
The Awards Ceremony will take place on Thursday May 8, 2025, at 6:30 pm in Hall D of the Edmonton EXPO Centre. Admission is free and everyone is welcome to attend. The Awards Ceremony will be shown live at http://skillsalberta.com/

Team Alberta Information
Team Alberta will be selected at the PSCC Awards Ceremony. Gold medalists will then be eligible to participate at the Skills Canada National Competition (SCNC) on May 28- May 31, 2025, in Regina, SK. It is recommended that competitors review the SCNC contest description to be familiar with the national contest description and project at
https://www.skillscompetencescanada.com/en/calendars/category/skills-canada-national-competition/

During the PSCC Awards Ceremony on Thursday May 8, 2025, gold medalists will be given their Team Alberta information package and will confirm their participation in the SCNC. Students must be present at the Awards Ceremony to claim their position on Team Alberta. If the Gold medalist is not able to attend SCNC, the next top ranking individual will be asked to participate. If a student is not able to attend the Awards Ceremony a letter confirming the student's interest in Team Alberta participation must be emailed to javierad@skillsalberta.com prior to the start of competition on May 7, 2025.

Please prepare your students in advance to accept a position on Team Alberta and review how your school will support their participation.

Please see this link for additional Team Alberta information:
https://skillsalberta.com/team- alberta/

Questions?
Please contact Mike Sury MikeS@SkillAlberta.com

COMMITTEE MEMBERS
Chair - David Brown
Member – Ethan Thomsen