

Area of Interest: Arts and Design

## Game - Art

Ontario College Diploma

Program Code: 1423X01FWO

2 Years

Ottawa Campus

### Our Program

#### Design a career in Game - Art showcasing your artistic talents.

In this two-year Game - Art Ontario College Diploma, you enter the world of video game production and immerse yourself in the artistic process of creating the visual and technical components for games. Working within a digital environment, you design rich cinematic worlds, with dynamic characters and challenging levels that draw players deeper into a game.

Learn the fundamental design skills required to create a game concept and take it through the game production pipeline. You develop storytelling, artistic and technical skills to produce games, with focused learning in the areas of product design, project management, game production, cinematography, and virtual production.

Working within a game engine, you acquire the transferable skills needed to contribute immersive digital environments for a multitude of industries. As part of a team, you deconstruct how games work and apply the knowledge learned to produce a playable game.

Graduates may find employment within a wide range of work environments and industries:

- video game industry
- film production
- education gamification
- simulation production
- research
- flight
- medical simulation
- tourism
- marketing

### SUCCESS FACTORS

This program is well-suited for students who:

- Have artistic talent and want to apply it to video game production.
- Enjoy working with technology to create content.
- Have strong observational critical-thinking and analytical skills.
- Enjoy a hands-on approach to learning about video game related industries.
- Are comfortable with computer programming elements.

### Employment

There are many career opportunities for graduates of Game-Art. You may find employment as a Game Artist, Environmental Artist, Character Developer, Level Designer, 3D Modeler, or Animator.

**Learning Outcomes**

- Identify the differences in game genres in order to develop games that meet the needs of specific markets.
- Situate emerging trends within a historical context of games and interactive media to adapt relevant concepts, vocabulary and frames of reference.
- Identify and relate concepts from a range of industry roles, including programing, design and art to support the development of games.
- Contribute as an individual and a member of a game development team to the effective completion of a game development project.
- Develop strategies for ongoing personal and professional development to enhance work performance in the games industry.
- Perform all work in compliance with relevant statutes, regulations, legislation, industry standards and codes of ethics.
- Support the development of pre-production and conceptual art for games and gaming through the selection and application of relevant design tools and drawing techniques.
- Create original game assets to meet requirements outlined in game design documents and/or creative briefs.
- Contribute to world building and level design in a game engine to meet industry and marketplace requirements.
- Assess and iterate user interface design in alignment with Game Design Documents to optimize both the aesthetics and function of gameplay.
- Identify and apply discipline-specific practices that contribute to the local and global community through social responsibility, economic commitment and environmental stewardship.

**Program of Study**

Level: 01	Courses	Hours
ENL1813M	Communications 1	42.0
GAM1611	3D Asset 1 - Modelling Foundations	42.0
GAM1612	Digital Art - Concept and Production	42.0
GAM1613	Audio Assets	42.0
GAM1614	Game Asset Technical Drawing	42.0
GAM1615	Design Foundations for Game Art	84.0
Level: 02	Courses	Hours
GAM1621	3D Asset 2 - Structures and Environments	42.0
GAM1622	3D Digital Design Technologies	42.0
GAM1623	3D Animation - Foundations	42.0
GAM1624	Cinematics - Production Fundamentals	42.0

GAM1625	Video Game Levels 1	42.0
<b>Level: 03</b>	<b>Courses</b>	<b>Hours</b>
GAM1631	3D Assets 3 - Characters	42.0
GAM1632	3D Animation - Advanced	42.0
GAM1633	Digital Sculpting and Texturing	42.0
GAM1634	Advanced Cinematic Production Techniques	84.0
GAM1635	Scriptwriting - Film, Tv, and Games	42.0
GAM1636	Video Game Levels 2	42.0
<b>Level: 04</b>	<b>Courses</b>	<b>Hours</b>
GAM1641	Game Industry-Professional Practices	42.0
GAM1642	Video Game Levels 3	42.0
GAM1643	Capstone Project - Game Production Pipeline	42.0
GAM1644	Capstone Project: Game Art Studio	84.0

## Fees for the 2024/2025 Academic Year

Tuition and related ancillary fees for this program can be viewed by using the Tuition and Fees Estimator tool at <http://www.algonquincollege.com/fee-estimator>

Further information on fees can be found by visiting the Registrar's Office website at <http://www.algonquincollege.com/ro>

Fees are subject to change.

Additional program related expenses include:

Supplies cost approximately \$100 in the first year.

## Admission Requirements for the 2025/2026 Academic Year

### College Eligibility

- Ontario Secondary School Diploma (OSSD) or equivalent.
- Applicants with an OSSD showing senior English and/or Mathematics courses at the Basic Level, or with Workplace or Open courses, will be tested to determine their eligibility for admission; **OR**
- Academic and Career Entrance (ACE) certificate; **OR**
- General Educational Development (GED) certificate; **OR**
- Mature Student status (19 years of age or older and without a high school diploma at the start of the program). Eligibility may be determined by academic achievement testing for which a fee will be charged.

### Program Eligibility

- English, Grade 12 (ENG4C or equivalent)
- Mathematics, Grade 11 (MBF3C or equivalent)

- Applicants with international transcripts must provide proof of the subject specific requirements noted above and may be required to provide proof of language proficiency. Domestic applicants with international transcripts must be evaluated through the International Credential Assessment Service of Canada (ICAS) or World Education Services (WES).

- IELTS-International English Language Testing Service (Academic)  
Overall band of 6.0 with a minimum of 5.5 in each band **OR** TOEFL-Internet-based (iBT) Overall 80, with a minimum of 20 in each component: Reading 20; Listening 20; Speaking 20; Writing 20 **OR** Duolingo English Test (DET) Overall 110, minimum of 110 in Literacy and no score below 95.

Not sure if you meet all of the requirements? Academic Upgrading may be able to help with that:  
<https://www.algonquincollege.com/access/>

Should the number of qualified applicants exceed the number of available places, applicants will be selected on the basis of their proficiency in English and mathematics.

## Application Information

### GAME - ART Program Code 1423X01FWO

Applications to full-time day programs must be submitted with official transcripts showing completion of the academic admission requirements through:

ontariocolleges.ca  
60 Corporate Court  
Guelph, Ontario  
N1G 5J3  
1-888-892-2228

Students currently enrolled in an Ontario secondary school should notify their Guidance Office prior to their online application at [www.ontariocolleges.ca](http://www.ontariocolleges.ca) Applications for Fall Term and Winter Term admission received by February 1 will be given equal consideration. Applications received after February 1 will be processed on a first-come, first-served basis as long as places are available.

International applicants please visit this link for application process information:  
<https://algonquincollege.force.com/myACint/>

For further information on the admissions process, contact:

Registrar's Office  
Algonquin College  
1385 Woodroffe Ave  
Ottawa, ON K2G 1V8  
Telephone: 613-727-0002  
Toll-free: 1-800-565-4723  
TTY: 613-727-7766  
Fax: 613-727-7632  
Contact: <https://www.algonquincollege.com/ro>

## Course Descriptions

### ENL1813M Communications 1

Communication remains an essential skill sought by employers, regardless of discipline or field of study. Using a practical, vocation-oriented approach, students focus on meeting the requirements of effective communication. Through a combination of lectures, exercises, and independent learning, students practise writing, speaking, reading, listening, locating and documenting information, and using technology to communicate professionally. Students develop and strengthen communication skills that contribute to success in both educational and workplace environments.

Prerequisite(s): none  
Corequisite(s): none

**GAM1611 3D Asset 1 - Modelling Foundations**

Much of the assets in a modern video game consist of 3D models. Students develop the skills necessary to create 3D assets for video games. Students explore the fundamentals of game asset creation involving polygonal modeling, UV mapping, basic textures and materials. Using 3D software, students create 3D models and export to a video game engine.

Prerequisite(s): none  
Corerequisite(s):none

**GAM1612 Digital Art - Concept and Production**

Concept artists are an integral part of many media and entertainment industries, translating project ideas to a visual medium. Students practice concept art techniques by taking key concepts and translating them into a visual form to help with the direction of the pre-production and production phases of a video game project. Using the principles of design thinking and production techniques, such as color theory, composition, and perspective students create digital 2D art that is then applied to the production workflow of a game.

Prerequisite(s): none  
Corerequisite(s):none

**GAM1613 Audio Assets**

Audio is used throughout the entertainment industry to communicate, propel a story and to elicit emotion. Audio assets contribute to the full immersive experience of a product your product provides full immersion, whether in a video game, movie, or TV series. Students develop techniques for recording and modifying sound assets and leveraging audio tools. Within a game engine, students create adaptive and interactive sound assets. Through case studies and applied sound recording activities, students develop useable assets for various game genres and platform types.

Prerequisite(s): none  
Corerequisite(s):none

**GAM1614 Game Asset Technical Drawing**

Technical drawings are the precise details of objects, providing exactly what an object will look like from all sides including functional details. They are often used by engineers, architects and video game artists to accurately create 3D models. Students apply fundamental techniques of technical drawing to create accurate 3D environments and objects for a game. Through the application of orthographic projections, dimensioning, sectional views, technical drawings and use of reference photography, students design and draw overlays for video game characters, such as clothing or armour. Through applied technical drawing activities, students develop the skills to create accurate 3D environments and objects for video games.

Prerequisite(s): none  
Corerequisite(s):none

**GAM1615 Design Foundations for Game Art**

Video games, board games, and card games all have one thing in common: rules and design. Within the industry Game Artists work alongside Game Developers and Designers to create a unique game. Students develop a foundation in the theory and practice of game design to form a deep understanding of how usability testing, game mechanics and the documentation of work combine with custom artwork to produce a visually appealing and playable game. Working together in groups students engage in activities which lead to the production of a fully playable tabletop game prototype.

Prerequisite(s): none  
Corerequisite(s):none

**GAM1621 3D Asset 2 - Structures and Environments**

In the competitive landscape of video games, the quality of the visuals can influence its success. Through the game production pipeline, refinement, and modifications are required to achieve a desired level of quality. Students further develop asset building skills to refine and polish game objects and environments through the application of 3D software modeling and tools. Through asset development exercises, students create and modify a complex 3D structure to be exported into a video game engine.

Prerequisite(s): GAM1611  
Corerequisite(s):none

**GAM1622 3D Digital Design Technologies**

Video game art contains complex exteriors and interiors, closely resembling structures that are built in real-life. Students explore foundational technologies and techniques used in architecture and interior design. Students leverage design workflows and tools commonly used in other industries to develop transferable skills within 3D design. Students use Building Information Modeling (BIM) tools and practices to create an architectural environment.

Prerequisite(s): GAM1611  
Corerequisite(s):none

**GAM1623 3D Animation - Foundations**

Most video games, along with areas of the entertainment industry, require multiple animated sequences to bring environments and characters to life. Students develop foundational animation skills to create dimension and movement for 3D objects. Students use object hierarchies, rigs, and key framing to create and render 3D animations. Students develop skills and demonstrate proficiency in the application of animation principals through in-depth activities and assignments.

Prerequisite(s): GAM1611  
Corerequisite(s):none

**GAM1624 Cinematics - Production Fundamentals**

Visual story telling is an increasingly important aspect of video game production. Students combine game production skills with the professional techniques of film making such as, lighting, camera movement, story structure, scene development, editing and sound design. Through case studies and applied cinematic production activities students develop the skills needed to plan and produce engaging cinematic, videos.

Prerequisite(s): none  
Corerequisite(s):none

**GAM1625 Video Game Levels 1**

Designing and constructing levels is a key component in video game worlds. Along with the artistic interpretation of the environments within a game, Game Artists need to consider multiple aspects of game development when creating levels. Students explore fundamentals of level design for video games including genre analysis, game play styles and limitations, game play mechanics, level construction and architecture techniques, design principles and scripting. Students discover how levels are created using an iterative process to improve an existing game from design concept to production and play test.

Prerequisite(s): GAM1611  
Corerequisite(s):none

**GAM1631 3D Assets 3 - Characters**

A dynamic video game relies on assets that immerse the player into a rich environment where characters and settings provide context and help to advance a player's engagement. Students apply the techniques and technical skills required to optimize complex 3D assets. Students create

layers of clothing to add to characters and props to go in game environments. Through applied 3D modelling activities, students develop the skills necessary to create functional and polished 3D characters, ready for game engines.

Prerequisite(s): GAM1621  
Corerequisite(s):none

### **GAM1632 3D Animation - Advanced**

In the development of a character within a game environment it is important to create the attributes that give it personality, and purpose. Students examine techniques necessary to create exceptional and exciting character animation cycles, found in professional video games. Students provide fluid motion to their characters through advanced 3D animation techniques, and the application of sounds and language. Students examine biometrics and apply the principals to torso animation. They develop unique attributes of a character's language that are then lip-synced to the character in the final animated sequence. Through applied activities, case studies and research, students develop and export polished animation cycles to game engines.

Prerequisite(s): GAM1621 and GAM1623  
Corerequisite(s):none

### **GAM1633 Digital Sculpting and Texturing**

Digital sculpting and texturing are an integral part of the advancement of 3D assets. Students review and apply sculpting techniques to produce detailed 3D models for creatures, human characters, and environment props. Students use procedural texturing techniques to create authentic textures that can be duplicated through high and low fidelity texture baking. Students demonstrate proficiency in the full sculpting pipeline, from inception to final export to the game engine.

Prerequisite(s): GAM1621  
Corerequisite(s):none

### **GAM1634 Advanced Cinematic Production Techniques**

The disciplines of game production and film production are advancing with the help of each other. Games are taking on more realistic film like appearances and films are benefiting from game technology to create virtual environments. Students apply advanced cinematic techniques to game production through the creation of scenes and use of sophisticated technology. Students use film production techniques and equipment with editing software to capture the visuals and audio for a video sequence. Students experiment with virtual reality and interactive artificial intelligence within real-time game engines to produce content.

Prerequisite(s): GAM1621 and GAM1623 and GAM1624  
Corerequisite(s):none

### **GAM1635 Scriptwriting - Film, Tv, and Games**

Scripts are used throughout the media and entertainment industries, including games, to facilitate compelling storytelling and narratives. From script to final screenplay, students explore the methods used to write compelling stories, with plot structures, formatting, branching dialogue and complex narratives. Students learn the importance of making editorial decisions, to improve a script all the way through to final production. Through script writing and editing activities, students develop content for various media.

Prerequisite(s): none  
Corerequisite(s):none

### **GAM1636 Video Game Levels 2**

Players can advance through video games by negotiating different levels, which can become more complex as the game moves forward. Students undertake platform and genre analysis, review game play styles and limitations, and examine construction techniques and mechanics to explore

the theory and the technical aspects of game levels. Students continue to practise their game art skills using industry standard tools to build levels and integrate these tools into a workflow using an iterative process. Through to design concept production and play tests, students create a functional video game level.

Prerequisite(s): GAM1625

Corerequisite(s):none

### **GAM1641 Game Industry-Professional Practices**

Within the game industry many individuals work as either fulltime or freelance artists contracted to game studios. Students explore key business elements of the industry they will use in their career. Students investigate fundamental legal and business requirements including the promotion of equity, diversity, inclusion, and accessibility in the production of games. Through case studies, understanding of how to navigate the game industry responsibly.

Prerequisite(s): none

Corerequisite(s):none

### **GAM1642 Video Game Levels 3**

Consumers expect the game industry to produce quality video games that may involve complex worlds, cinematic visuals, challenging game play and rich immersive experiences. Students explore new visual design technologies and further develop their design skills using virtual reality, photogrammetry, point-cloud data, and advanced scripting. Students create complex levels to propel the story and gameplay within a video game.

Prerequisite(s): GAM1631 and GAM1632 and GAM1633 and GAM1634 and GAM1636

Corerequisite(s):none

### **GAM1643 Capstone Project - Game Production Pipeline**

Producing a game requires several individuals coming together to transform a concept into an aesthetically pleasing, playable game. Students undertake the coordination of the development of a game through the production workflow, paying particular attention to the role of a Game Artist throughout the life cycle. Students work together to develop a concept, illustrate, and pitch their ideas and then apply user experience (UX) client-centred design processes and industry standard practices towards achieving a product design and final deliverables. Students are introduced to Agile project management methodologies for their project. Students create a schedule to advance and track a game through development and design through production and post-production.

Prerequisite(s): GAM1631 and GAM1632 and GAM1633 and GAM1634 and GAM1635 and GAM1636

Corerequisite(s):GAM1644

### **GAM1644 Capstone Project: Game Art Studio**

Game artists are integral to the production of a video game. They contribute a personality and style to a game helping to propel the story through gameplay. Through the production of a game or immersive experience, students demonstrate their ability to use game production technology to produce execute a project content with dynamic environments, compelling characters, and playable layers. Working in production group teams, students follow industry production workflows to create a project reflective of industry that brings together many of the skills required of a game artist.

Prerequisite(s): GAM1631 and GAM1632 and GAM1633 and GAM1634 and GAM1635 and GAM1636

Corerequisite(s):GAM1643