Game Development - Art

Overview

- Two-year advanced diploma

- Work Integrated Learning experience

- September entry date

- Manitou a bi Bii daziigae, Exchange District Campus, Winnipeg

- Annual application deadline: April 30

- Competitive Admission program

Game Development is focused on providing graduates with the skill sets needed to pursue careers in video game development. A foundational pillar of this program is to solve creative and technical challenges in a collaborative team-based environment, allowing students to build a relevant portfolio of work showcasing their skills. To learn about games, we make games!

Work Integrated Learning

Students will participate in a 12 week Work Integrated Learning term in their field of study. Co-operative education integrates classroom theory with related on-the-job-training by alternating terms of academic study and employment. It allows the student to gain valuable industry experience, make industry contacts, and attain a competitive advantage for job search upon graduation. The student will also gain practical knowledge about the workplace environment, including expectations, behaviours and ethics required to be successful.

For information on the program contact Chris Brower at cbrower@rrc.ca.

Graduate Profile

The Game Development advanced diploma graduate will learn to:

1. Create, edit and present game productions as part of a team while cultivating respectful and productive working relationships

2. Research, interpret and apply information to enhance project outcomes

3. Tell stories and create game projects

4. Create and edit game-ready assets

5. Create documents to meet game development objectives

6. Think critically, self-manage and learn independently

7. Manage projects by interacting with stakeholders while respecting timelines, workflow and production schedules

8. Demonstrate industry-ready skills in the chosen specialization streams of Game Art or Game Programming

9. Showcase abilities through professional portfolios, presentations, projects and work experience

Admission Requirements

Your Academic History

If your academic history includes any of the following, please visit My Education for important information: post-secondary studies at an institution other than Red River College Polytechnic; Modified (M), English as an Additional Language (E), or GED high school courses; or home schooling; international secondary (high school) studies.

The college requires transcripts verifying your complete academic history including any public or private high school, college, university, or technical institute you have attended.

Please check the Program Overview page, to see if this program is for Manitoba residents only.

DOCUMENT SUBMISSION

Upload Through Your Future Student Account

- Scan your document(s) and save the file. Ensure you keep your original documents as the College may request to see them at any time.
- Go to apply.rrc.ca and log in.
- Click on your application, then Supplemental Items & Documents.

If you do not have a Future Student Account or require assistance, please contact our Student Service Centre at 204-632-2327.

Internationally Educated Applicants - visit www.rrc.ca/credentials for credential assessment information.

Submission of required documentation indicating proof of completion of admission requirements is due within 15 days of applying unless otherwise noted in the program's admission requirements.

This is a competitive admission program. Your portfolio will be evaluated and assigned a score that reflects your potential for success in the program. If your portfolio score does not fall within the acceptable range, your application will be cancelled.

Offers of admittance will be made to qualified applicants based on portfolio scores in descending order until all available seats are filled. This means not all applicants whose portfolios scores fall within acceptable range will be offered a seat.

Applicants not offered a seat may reapply for a future intake by submitting a new application, application fee, and new portfolio based on the portfolio specifications for that application year.

Admission priority for this program is:

1. Red River College students currently enrolled in the Digital Media Design, the Digital Media Design-Interaction Design and Development program, or the Digital Media Design-Video and Motion Graphics program.
2. Manitoba residents who are Canadian Citizens or Landed Immigrants
3. All others

Annual application deadline: April 30

Regular Admission Requirements

1. Digital Media Design
   - Submit proof of graduation from or enrolment in the final year of a post-secondary digital media design program or equivalent.
   - If you provide proof of enrolment at time of application, your official final grades indicating successful completion must be submitted by July 15 for fall enrolment or by the deadline specified in your admission letter.

- Post-secondary transcripts must have been issued within 6 months prior to your application date.
- If you are required to complete an English language assessment, do not submit your transcripts until requested to do so. See English Language Requirements (ELRs) for more information.
  and

2. English Language Requirements (ELRs)
   - Answer this question to determine if you meet this program's ELRs:
     Have I successfully completed 3 years of full-time high school (secondary) education in Canada, the United States, or an ELR exempt country where English was the language of instruction?
     - If YES, you meet English language requirements. Apply and then submit your transcripts* for review
       or
     - If NO, submit proof of meeting an ELRs option. If you choose the English language assessment option, review this program's approved assessments and required levels.
       or
     - If you completed all of your education in Canada, the United States, or an ELR exempt country in English but you did not graduate high school, submit your transcripts* for review.
   - * If your transcripts are from the USA or an ELR exempt country, we will assess an International Credentials Assessment Fee to be paid before your transcripts will be reviewed.
     and

3. Portfolio
   - Submit a portfolio
   - This item is not due within 15 days of applying and will be requested by the College at a later date

English Language Assessments

⚠ The College reserves the right to modify this information without notice or prejudice.
🕘 ASSESSMENT RESULTS MUST BE DATED NO MORE THAN TWO YEARS PRIOR TO YOUR APPLICATION DATE!

Approved English Language Assessments

English Language Assessment	Minimum Scores for Certificates, Diplomas and Advanced Diplomas, and Post Graduate Certificates, Post-graduate Diplomas	Minimum Scores for Bachelor Degrees and Creative Communication
CAEL Online or In-Person	Overall band score of 60	Overall band score of 70 and Writing of 60
IELTS Academic Level	Overall 6.0 and No band below 5.5	Overall 6.5 and No band below 6.0
Password Skills	Overall 6.0 and No band below 5.5	Overall 6.5 and No band below 6.0
LINC Certificate	7	8
Duolingo Language Test	115 and above+ with a min. of 95 in each section	125 and above with a min. of 100 in each section
New English for Academic and Professional Purposes	Successful completion of the program 5 (min 70%)	Successful completion of the program 5 (min 70%)
PTE	54 overall Min 50 in each skill	60 overall Min 55 in each skill band
TOEFL-ibt Academic Level	80 (20L, 20S, 19R, 21W)	90 (22L, 22S, 22R, 24W)

English Language Assessment	Minimum Scores for Certificates, Diplomas and Advanced Diplomas, and Post Graduate Certificates, Post-graduate Diplomas	Minimum Scores for Bachelor Degrees and Creative Communication
Academic English Program for University and College Entrance Program (AEPUCE)	Successful Completion	Successful Completion
CELBAN	N/A	N/A

Locations, Dates and Fees

Next Estimated Term 1 Start Date (subject to change)

Location	Start Date	
Manitou a bi Bii daziigae	Aug 31, 2026	Apply Now

Costs (estimates only; subject to change)

Program/Student Fees	
Year 1	$11,318.00
Year 2	$10,303.00

Other Fees	
Year 1	$460.00[1]

Program/Student Fees (International)	
Year 1	$21,083.00
Year 2	$19,543.00

[1] The following supplies are recommended: Full-size headphones (ear bud type not recommended) - $150, Minimum 1TB External Hard Drive (Samsung SSD T5 1TB model recommended) - $180, Webcam and Microphone - $130

Students may apply for financial assistance through the Manitoba Student Aid program. For general information on applying please call 204-945-6321 or 1-800-204-1685, or visit their website at www.manitobastudentaid.ca, which also includes an online application. For detailed information, please visit one of the RRC Polytech Student Service Centres or call 204-632-2327. Applicants requiring financial assistance should complete their student loan applications well in advance of the class start date.

Courses and Descriptions

Year 1	
Term 1	**Credit Hours**

COMM-3065
Development and Narrative Design 1

3

DMMT-3008
Game Content Creation 1

6

DMMT-3009
Visual Artistry 1

3

DMMT-3010
Game Studio 1

6

MGMT-3016
Game Business Management 1

	3

MUME-3003
Motion and Animation 1

	3

Term 2	Credit Hours

COMM-4065
Development and Narrative Design 2

	3

DMMT-4008
Game Content Creation 2

	6

DMMT-4009
Visual Artistry 2

	3

DMMT-4010
Game Studio 2

	6

MGMT-4016
Game Business Management 2

	3

MUME-4003
Motion and Animation 2

	3

Year 2

Term 3	Credit Hours

COMM-5065
Development and Narrative Design 3

	3

DMMT-5008
Game Content Creation 3

	6

DMMT-5009
Visual Artistry 3

	3

DMMT-5010
Game Studio 3

	6

MGMT-5016
Game Business Management 3

	3

MUME-5003
Motion and Animation 3

	3

Term 4	Credit Hours

COMM-6065
Development and Narrative Design 4

	3

DMMT-6008
Game Content Creation 4

	6

DMMT-6009
Visual Artistry 4

	3

DMMT-6010
Game Studio 4

	6

MGMT-6016
Game Business Management 4

	3

MUME-6003
Motion and Animation 4

3

Term 5	Credit Hours

Electives

COOP-6002
Co-op

3

INDP-6002
Industry Project

3

COMM-3065
Development and Narrative Design 1

This is the first of four Development and Narrative Design courses and is a shared course for both game artists and programmers. Development and Narrative Design 1 explores the foundational concepts of the game design process. Evaluating a game, and all its components, allows game developers to determine areas of strength, weakness, and opportunities for user experience improvement. Students will learn to create a variety of engaging gameplay scenarios with the aim of creating a balanced and rewarding gaming experience.

COMM-4065
Development and Narrative Design 2

This is the second of four Development and Narrative Design courses and is a shared course for both game artists and programmers. This course explores the core concepts of the game design process. Evaluating a game, and all its components, allows game developers to determine areas of strength, weakness, and opportunities for improvement or new game elements. In this course students will learn to create concept art, mood boards, environmental designs, and concept art.

Prerequisites:
COMM-3065

COMM-5065
Development and Narrative Design 3

This is the third of four Development and Narrative Design courses and is a shared course for both game artists and programmers. Development and Narrative Design 3 explores the core concepts of the game design process. Evaluating a game, and all its components, allows game developers to determine areas of strength, weakness, and opportunities for improvement or new game elements. Students will explore topics such as designing for accessibility, gameplay conventions and genres, and the roles of AI and camera placement in game design.

Prerequisites:
COMM-4065

COMM-6065
Development and Narrative Design 4

This is the fourth and final Development and Narrative Design course and is a shared course for both game artists and programmers. Development and Narrative Design 4 explores the core concepts of the game design process. Evaluating a game, and all its components, allows game developers to determine areas of strength, weakness, and opportunities for improvement or new game elements. Students will explore the process of taking a game idea from pitch to promotion.

Prerequisites:
COMM-5065

COOP-6002
Co-op

(No description available at this time)

Prerequisites:
Students in Game Development-Art require: COMM-6065">COMM-6065 DMMT-6008 DMMT-6009 DMMT-6010">DMMT-6010 MGMT-6016">MGMT-6016 and MUME-6003. Students in Game Development-Programming require: COMM-6065">COMM-6065 COMP-6015 DMMT-3013 DMMT-4012 DMMT-6010">DMMT-6010 and MGMT-6016">MGMT-6016.

DMMT-3008
Game Content Creation 1

This course provides students with knowledge on foundational topics in game content creation. Students will be introduced to the creative and technical aspects of 3D and 2D asset creation as used in the Games industry. Students will design and analyze workflows for basic procedural modelling as well as gain experience with modelling software interfaces. The connections between digital content creation (DCC) packages and game engines will be explored. Students will design, create and deploy art assets into a real-time game engine. This course provides the base for Game Content Creation 2.

DMMT-3009
Visual Artistry 1

This is the first of four courses that concentrate on developing texturing, material authoring and object lighting techniques as used in real-time game engines. Students will be introduced to the creative and technical aspects of analyzing and authoring the surface properties of game assets. Students will explore workflows for basic material creation and lighting techniques. The connections between digital content creation (DCC) packages and game engines will be explored. This course provides the base for Visual Artistry 2.

DMMT-3010
Game Studio 1

This is the first of four Game Studio courses and is a shared course for both game artists and programmers. Game Studio 1 is an introduction to the Unreal game engine. Students will develop strategies and workflows to create basic production workflows in a game engine. Working in teams, students learn to create small experimental gameplay prototypes. Students will also learn foundational Visual scripting techniques along with team-based version control workflows.

DMMT-4008
Game Content Creation 2

This is the second course of four which builds upon the knowledge covered in Game Content Creation 1. Students will continue to explore the creative and technical aspects of asset creation as used in the Games industry. Students will design and analyze workflows for procedural modelling as well as gain experience with modelling various modeling software. The connections between digital content creation (DCC) packages and game engines will be explored. Students will design, create and manage assets in a real-time game engine. This course provides the base for Game Content Creation 3.

Prerequisites:
DMMT-3008

DMMT-4009
Visual Artistry 2

This is the second of four Visual artistry courses. Visual Artistry 2 continues to build upon the foundational concepts previously covered. A focus on procedural material and texture creation will be covered. Students will explore the creation of photorealistic and stylized approaches to material and texture authoring. The links between lighting and material authoring will be explored. The use of various digital content creation (DCC) packages and game engines will be examined. This course provides the prerequisite knowledge for Visual Artistry 3.

Prerequisites:
DMMT-3009

DMMT-4010
Game Studio 2

This is the second of four Game Studio courses and is a shared course for both game artists and programmers. Game Studio 2 focuses on analyzing and designing games. Working in teams, students leverage skills, assets, and software applications to create small experimental gameplay prototypes. Foundational skills in game design workflow, automation, implementation, testing and debugging will be covered.

Prerequisites:
DMMT-3010

DMMT-5008
Game Content Creation 3

This is the third course of four which builds upon the knowledge covered in Game Content Creation 2. Students will focus on the creative and technical aspects of asset creation. Students will design and analyze advanced workflows for procedural modelling as well as gain experience with various modeling software. The connections between digital content creation (DCC) packages and game engines will be explored. Students will design, create and manage assets in a real-time game engine. This course provides the base for Game Content Creation 4.

Prerequisites:
DMMT-4008

DMMT-5009
Visual Artistry 3

This is the third of four courses that concentrate on developing texturing, material authoring, and object lighting techniques as used in real-time game engines. Students will be introduced to the creative and technical aspects of analyzing and authoring the surface properties of game assets. Students will explore workflows for basic material creation and lighting techniques. The connections between digital content creation (DCC) packages and game engines will be explored. This course provides the base for Visual Artistry 4.

Prerequisites:
DMMT-4009

DMMT-5010
Game Studio 3

This is the third of four Game Studio courses and is a shared course for both game artists and programmers. Game Studio 3 focuses on analyzing and designing solutions for creating games. Working in teams, students leverage skills, assets, and software applications to create experimental gameplay prototypes. Skills in game design workflow, automation, implementation, testing and debugging will be reinforced.

Prerequisites:
DMMT-4010

DMMT-6008
Game Content Creation 4

This is the final course of four which builds upon the knowledge covered in Game Content Creation 3. Students will focus on the advanced creative and technical aspects of asset creation. The connections between digital content creation (DCC) packages and game engines will be further explored. Students will be able to design, create, optimize and manage assets in a real-time game engine. This process will expose students to numerous cutting-edge game development technologies, while providing them with practice at being self-directed learners.

Prerequisites:
DMMT-5008

DMMT-6009

Visual Artistry 4

This is the final Visual Artistry course. Students will focus on the creative and technical aspects of creating textures, materials and lighting setups. Students will analyze and implement various advanced workflows for managing and editing real-time rendering scenarios. Students will be able to design, create, optimize and manage the rendering of game assets. This process will expose students to numerous cutting-edge game workflows and ideas.

Prerequisites:
DMMT-5009

DMMT-6010
Game Studio 4

This is the fourth and final Game Studio courses and is a shared course for both game artists and programmers. Working in teams, students leverage skills, assets, and software applications to create an experimental gameplay prototype. Skills in game design workflow, automation, implementation, testing and debugging will continue to be reinforced.

Prerequisites:
DMMT-5010

INDP-6002
Industry Project

(No description available at this time)

Prerequisites:
Students in Game Development-Art require: COMM-6065">COMM-6065 DMMT-6008 DMMT-6009 DMMT-6010">DMMT-6010 MGMT-6016">MGMT-6016 and MUME-6003. Students in Game Development-Programming require: COMM-6065">COMM-6065 COMP-6015 DMMT-3013 DMMT-4012 DMMT-6010">DMMT-6010 and MGMT-6016">MGMT-6016.

MGMT-3016
Game Business Management 1

This is the first of four Game Business management courses and is a shared course for both game artists and programmers. This course provides an overview of the Game Industry development process, with a focus on the principles of Project Management. Students will develop their own game industry project ideas. Students will also learn foundational skills relating to budgets, funding models, design documentation, and Agile management principles.

MGMT-4016
Game Business Management 2

This is the second of four Game Business Management courses and is a shared course for both game artists and programmers. In this course students will analyze the Game Industry development process, with a focus on the principles of project development and management. Students will develop their own game industry project ideas and plans. Students will continue to develop skills relating to budgets, funding models, design documentation, and Agile management principals.

Prerequisites:
MGMT-3016

MGMT-5016
Game Business Management 3

This is the third of four Game Business Management courses and is a shared course for both game artists and

programmers. In this course students will analyze the Game Industry development process, with a focus on the principles of project development and management. Students will develop their own game industry project ideas and plans. Students will continue to develop skills relating to budgets, funding models, design documentation, and Agile management principals.

Prerequisites:
MGMT-4016

MGMT-6016
Game Business Management 4

This is the fourth and final Game Business Management course and is a shared course for both game artists and programmers. Game Business Management provides students with a grounding in the three key areas of business associated with game development. The course focuses on legal considerations, funding, economics and the marketing of game projects.

Prerequisites:
MGMT-5016

MUME-3003
Motion and Animation 1

This course provides students with introductory knowledge on foundational topics in animating assets for use in game production pipelines. Students will be introduced to the creative and technical aspects of animating characters and game assets. Students will create and analyze workflows for basic animation techniques. The connections between digital content creation (DCC) packages and game engines will be explored. Students will design, create and deploy animation assets into a real-time game engine. This course provides the base for Motion and Animation 2.

MUME-4003
Motion and Animation 2

This course reinforces skills in motion and animation developed by students in Motion & Animation 1. Students will continue to create animated assets using 3D software. There will be a focus on animating game characters and dialogue as well as creating rigs for characters. The depiction of emotional and physical forces using the principles of animation are examined and applied. In addition to creating and editing motion capture data, students will learn how to automate repetitive animation tasks. This course provides the base for Motion & Animation 3.

Prerequisites:
MUME-3003

MUME-5003
Motion and Animation 3

This is the third course of four which builds upon the knowledge covered in Motion and Animation 2. Students will focus on the creative and technical aspects of animating assets in a game engine. Students will analyze advanced workflows for managing and editing animation data inside a game engine. The connections between digital content creation (DCC) packages and game engines will also be covered. This course provides the base for Motion and Animation 4.

Prerequisites:
MUME-4003

MUME-6003
Motion and Animation 4

This is the final course of four which builds upon the knowledge covered in Motion and Animation 3. Students will focus on the creative and technical aspects of creating animated assets in a game engine. Students will analyze and implement various advanced workflows for managing and editing animation data inside a game engine, providing them with practice at being lifelong self-directed learners.

Prerequisites:
MUME-5003

Computer/Laptop Requirements

Each student will be assigned their own classroom desktop computer with all the software needed for the program installed. (Note: Students should still have off-campus access to their own computer systems). The following hardware is recommended for the program.

Supplies recommended:

• Webcam and microphone
• Full-size headphones (ear bud type not recommended) - $150
• Minimum 1TB External Hard Drive (Samsung SSD T5 1TB model recommended) - $180
• A high-speed internet connection. Recommended minimum speed: 10 mbps for download, 3 mbps for upload. Slower internet connection speeds may result in audio and video issues. Please keep in mind that if others in your home are using the same internet connection at the same time as you are, you may also experience audio and video issues. Please refer to https://www.rrc.ca/future-students/computer-requirements/

Off-campus computer system specification guide:

 This list represents the minimum hardware spec for a desktop computer system used for developing games with Unreal Engine 5 and or Unity:

• Windows 11 64-bit
• 32 or 64 GB RAM (more is always better)
• 1 TB SSD (OS Drive)
• 2 TB SSD (Data Drive)
• NVIDIA GeForce RTX 3070 or better
• Minimum twelve core processor AMD or Intel

Recognition of Prior Learning

Recognition of Prior Learning (RPL) is a process which documents and compares an individual's prior learning gained from prior education, work and life experiences and personal study to the learning outcomes in College courses/programs. For more information, please visit www.rrc.ca/rpl.

Other Information

Game Development - Art Entrance Portfolio Instructions

Competitive Entry

Students must submit an entrance portfolio. This portfolio is graded and the applicants achieving the highest grades on the portfolio are granted entrance into the program.

Before you begin work on your portfolio

Make sure that you have applied for the Game Development – Art program and paid your application fee. Apply online at rrc.ca

Portfolio Specifications

1. Three to five examples of your strongest artwork, such as:
   - 3D models
   - 3D or 2D animation
   - Digital or traditional sculpts
   - Figure drawing
   - Character design
   - Still life drawings or paintings
   - Storyboards
   - Graphic design work
   - Motion graphics
   - Photography

2. A resumé and cover letter stating your educational background, work experience, art training, and any computer software and/or programming experience that you have had. You can also list hobbies and interests, and volunteer work. No references are needed.

What we are looking for

Portfolio Submission

About a month before the deadline, applicants will receive portfolio submission instructions. Portfolios must be submitted by 11:59 PM, the last day of May. Portfolios will not be accepted after this deadline, so make sure to submit early.

Hearing back from us

In June, after all portfolios have been assessed, you will be contacted by RRC Polytech Enrolment Services letting you know if your portfolio score falls within acceptable range.

Please contact Chris Brower at cbrower@rrc.ca for more information

Graduation Requirements

To graduate from the Game Development Advanced Diploma, all students must satisfactorily complete all 24 courses in the program (total 100 credit hours) plus the co-op. Students must also have achieved a graduating GPA of 2.0.

Academic Advising Service

Our academic advising service can provide information about our full-time programs, explain program admission requirements, and help you select the right program to meet your career and academic goals. We can also connect you with helpful people, resources, and supports.

- For more information visit academic advising.

- If you are an Indigenous student, you can contact an Indigenous Admissions Advisor.

- If you are an international student, you can contact International Education.

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