



GDIM Program Handbook 2022-2023

Please note that this document is intended to provide information and recommendations only to help students choose their path with recommendations and is subject to change at any time. If you have any specific questions regarding graduation requirements please refer to the Ontario Tech Undergraduate Academic Calendar (calendar.ontariotechu.ca) and/or speak to your Academic Advisor.

businessandit.ontariotechu.ca

BIT - GDIM - Degree Requirements:

# Courses			
19	The GDIM Common Core		
3	GENERAL ELECTIVE	GENERAL ELECTIVE	GENERAL ELECTIVE
3	OPEN ELECTIVE	OPEN ELECTIVE	OPEN ELECTIVE
2	BUSI ELECTIVE	BUSI ELECTIVE	
1	EXPERIENTIAL CREDIT		
12	GAME ELECTIVE	GAME ELECTIVE	GAME ELECTIVE
	GAME ELECTIVE	GAME ELECTIVE	GAME ELECTIVE
	GAME ELECTIVE	GAME ELECTIVE	GAME ELECTIVE
	GAME ELECTIVE	GAME ELECTIVE	GAME ELECTIVE
40 TOTAL			

To graduate with a Bachelor of IT with a major in Game Development and Interactive Media, students must complete the following:

- The GDIM Common Core
- 3x General Electives
- 3x Open Electives
- 2x Business Electives
- 1x Experiential Credit
- 12x GAME Electives



The GDIM Common Core

Y1: Fall	INFR 1395: GDW 1	INFR 1100: Programming for Games 1	INFR 1330: Intro to Game Design	INFR 1315: Visual Narrative Foundations	INFR 1020: Essential Math for Games 1
Y1: Winter	INFR 1396 : GDW 2	INFR 1110: Programming for Games 2	INFR 13395: Digital Game Design	INFR 1325: Intro. to 2D Anim for Games	INFR 1030: Essential Math for Games 2
Y2: Fall	INFR 2395: GDW 3	BUSI 1600: Mgmt. of the Enterprise			
Y2: Winter	INFR 2396: GDW 4				
Y3: Fall	INFR 3395: GDW 5	BUSI 2550: Intro. Proj. Mgmt.			
Y3: Winter	INFR 3396: GDW 6				
Y4: Fall	INFR 4395: GDW 7	BUSI 4560: Law & Ethics in Game Dev.			
Y4: Winter	INFR 4396: GDW 8				

The GDIM Common core contains a defined first year that engages students in all of the disciplines and provides them with a solid foundation in which they can use to gain depth in a discipline of their choice afterwards. The core also requires students to complete the Game Development Workshop (GDW) each semester.

To complete the **GDIM Common Core**, students must successfully complete **ALL** of the following:

- 8x Game Development Workshop courses:
 - INFR 1395U, INFR 1396U
 - INFR 2395U, INFR 2396U
 - INFR 3395U, INFR 3396U
 - INFR 4495U, INFR 4496U
- INFR 1100U - Programming for Games 1
- INFR 1110U - Programming for Games 2
- INFR 1330U - Introduction to Game Design
- INFR 1335U - Digital Game Design
- INFR 1315U - Visual Narrative Foundations
- INFR 1325U - Introduction to 2D Animation for Games
- INFR 1020U - Essential Math for Games 1
- INFR 1030U - Essential Math for Games 2
- BUSI 1600U - Management of the Enterprise
- BUSI 2550U - Introduction to Project Management
- BUSI 4550U - Law and Ethics in Game Development



Definitions:

EXPERIENTIAL OPTION:

- One of Capstone, Internship, Venture Creation

GENERAL ELECTIVES

- General Electives are courses that are non-INFR and non-CS courses and are intended to provide students with a breadth outside of their major.

Depending on the discipline we will provide a list of recommended General Electives to gain a deeper understanding of this discipline. Please see the discipline specific sections below for more information.

OPEN ELECTIVES

- Open Electives are ANY course at the university. Students may opt to use these as GAME Electives to take additional courses related to their chosen discipline of focus.

Depending on the discipline we will provide a list of recommended Open Electives to gain a deeper understanding of this discipline. Please see the discipline specific sections below for more information.

GAME ELECTIVES

- GAME Electives are considered to be any course listed in one of the GDIM Discipline clusters. The clusters are simply groupings of courses that fall under learning outcomes required for specific disciplines. Please see the next chapter on Discipline Pathways for more information on how to choose courses based on these clusters.

DISCIPLINE CLUSTERS:

- Each GDIM Discipline cluster contains a set of courses that pertain to that discipline.

*Students should examine the discipline clusters **closely** to determine which GENERAL, OPEN, and GAME electives are appropriate. Feel free to contact Advising or the Program Director if you have any questions on mapping out your electives based on your interests.*



Discipline Clusters: Programming

GAME PROG CORE	ENGINE DEV	ADVANCED
INFR 1350: Introduction to Computer Graphics	INFR 2350: Intermediate Computer Graphics	INFR 3830: Distributed Systems and Networking
INFR 2820: Algorithms and Data Structures	INFR 3110: Game Engine Design and Implementation	INFR 3380: Industrial Design for Game Hardware Development
INFR 2100: Programming in C/C++		INFR 4460: Emerging Technologies
INFR 2020: Essential Math for Games 3		INFR 4450: Advanced Graphics for Games
INFR 2810: Computer Architecture		

We have defined three (3) clusters related to the game programming discipline:

- **Game Programming Core**
 - *The foundation for disciplines that rely on programming knowledge*
- **Engine Development**
 - *Gain deeper knowledge in using, extending, and developing game engines*
- **Advanced Concepts**
 - *Emerging topics in various areas to further hone your skills*

Please see the discipline recommendations in the next chapter for more information as to which clusters should be taken for the different areas.



Discipline Clusters: Technical Art

3D GAME ART CORE	3D GAME ART 2
INFR 2345: Modeling and Animation Systems 1	INFR 3370: Intermediate Rigging
INFR 3345: Modeling and Animation Systems 2	INFR 3315: Cinematic Systems Design
	INFR 4445: Advanced Rigging
	INFR 4440: Advanced Sculpting

We have defined two (2) clusters related to the technical art discipline:

- **3D Game Art Core**
 - Provides the basics of the necessary concepts required for disciplines that rely on basic 3D art knowledge, this base knowledge is highly recommended for all students to gain a perspective from the Art team and understand the tools, concepts, and data that is required to make successful artistic choices
- **3D Game Art 2**
 - Designed for those who wish to deepen their 3D Game Art knowledge and practice their skills to create successful 3D assets

Please see the discipline recommendations in the next chapter for more information as to which clusters should be taken for the different areas.



Discipline Clusters: Design

GAME DESIGN CORE	SERIOUS GAMES	GAME SOUND
INFR 2330: Intermediate Game Design	INFR 4120: Serious Games	INFR 2370: Game Sound
INFR 2310: AI & Animation for Games	INFR 4400: Gamification	INFR 4370: Advanced Game Sound
INFR 3360: Virtual Spaces and Level Design	INFR 3370: Social & Emotional Game Design	
INFR 4350: Human-Computer Interaction For Games		

We have defined three (3) clusters related to the Game Design discipline.

- **Game Design Core**
 - Explores the basics of game, level, and interaction design
- **Serious Games**
 - Recommended for those interested in applying their game design knowledge in areas that are not necessarily entertainment focused but rather in educational, training, or medical fields
- **Game Sound**
 - For those interested in furthering their knowledge in the theory and practice of sound design for games and interactive applications.

Please see the discipline recommendations in the next chapter for more information as to which clusters should be taken for the different areas.



Discipline Clusters: Game User Research

UX RESEARCH	GAME USER RESEARCH
INFR 3250: UX Research	INFR 4345: Game Analytics
	INFR 3350: Games User Research

We have defined two (2) clusters related to the Game User Research discipline.

- **UX Research**
 - Provides the basic knowledge required to perform User Experience research in any application
- **Game User Research**
 - Deepens your knowledge in Game-specific applications, analytics, and provides you with the necessary tools/skills to be successful as in the game industry as a Game User Researcher or apply to graduate school

Please see the discipline recommendations in the next chapter for more information as to which clusters should be taken for the different areas.



Recommended Pathways

Game Programming Pathway

# Courses			
19	GDIM Common Core		
1	EXPERIENTIAL CREDIT		
2	BUSI ELECTIVE	BUSI ELECTIVE	
3	GENERAL ELECTIVE	GENERAL ELECTIVE	GENERAL ELECTIVE
3	OPEN ELECTIVE	OPEN ELECTIVE	OPEN ELECTIVE
1	GAME ELECTIVE		
CLUSTERS			
5	GAME PROG CORE		
2	ENGINE DEV		
4	ADVANCED		
40	TOTAL		

Recommended Choices for Electives:

- BUSI Electives
 - BUSI 2000U: Collaborative Leadership
 - BUSI 3590U – Design Thinking: A Human Centric Approach to Project Management
 - BUSI 3730U – Creative Problem Solving, Entrepreneurship and Imagination
 - BUSI 3930U – Leadership, Negotiation and Teamwork
- General Electives
 - COMM 1100U - Introduction to Communication Studies
 - COMM 3410U - Digital Media Storytelling
 - COMM 3740U - Digital Games Studies: From Pong to Pokemon Go
- Open Electives
 - INFR 2310: AI & Animation for Games
 - CSCI 2020U – Software Systems Development and Integration
 - CSCI 4060U – Massively Parallel Programming
 - CSCI 4100U – Mobile Devices
 - CSCI 4160U – Interactive Media
- GAME Electives
 - INFR 2345: Modeling and Animation Systems 1
 - INFR 2310: AI & Animation for Games



Sample Program Map: Game Programming Pathway

Y1: Fall	INFR 1395 - GDW 1	INFR 1100: Programming for Games 1	INFR 1330: Intro to Game Design	INFR 1315: Visual Narrative Foundations	INFR 1020: Essential Math for Games 1
Y1: Winter	INFR 1396 - GDW 2	INFR 1110: Programming for Games 2	INFR 13395: Digital Game Design	INFR 1325: Intro. to 2D Anim for Games	INFR 1030: Essential Math for Games 2
Y2: Fall	INFR 2395 - GDW 3	BUSI 1600: Mgmt. of the Enterprise	INFR 1350: Introduction to Computer Graphics	GAME ELECTIVE	INFR 2100: Programming in C/C++
Y2: Winter	INFR 2396 - GDW 4	INFR 2350: Intermediate Computer Graphics	INFR 2820: Algorithms and Data Structures	INFR 2810: Computer Architecture	INFR 2020: Essential Math for Games 3
Y3: Fall	INFR 3395 - GDW 5	BUSI 2550: Into. Proj. Mgmt.	INFR 3110: Game Engine Design and Implementation	GENERAL ELECTIVE	OPEN ELECTIVE
Y3: Winter	INFR 3396 - GDW 6	INFR 3830: Distributed Systems and Networking	INFR 3380: Industrial Design for Game Hardware Development	BUSI ELECTIVE	OPEN ELECTIVE
Y4: Fall	INFR 4395 - GDW 7	BUSI 4560: Law & Ethics in Game Dev.	INFR 4460: Emerging Technologies	BUSI ELECTIVE	GENERAL ELECTIVE
Y4: Winter	INFR 4396 - GDW 8	EXPERIENTIAL CREDIT	INFR 4450: Advanced Graphics for Games	OPEN ELECTIVE	GENERAL ELECTIVE

NOTE: this is for sample purposes only, some courses may be offered in alternate years and electives can appear in any slot depending on need



Technical Art Pathway

# Courses			
19	GDIM Common Core		
1	EXPERIENTIAL CREDIT		
2	BUSI ELECTIVE	BUSI ELECTIVE	
3	GENERAL ELECTIVE	GENERAL ELECTIVE	GENERAL ELECTIVE
3	OPEN ELECTIVE	OPEN ELECTIVE	OPEN ELECTIVE
CLUSTERS			
2	3D GAME ART CORE		
3	3D GAME ART 2		
5	GAME PROG CORE		
2	ENGINE DEV		
40	TOTAL		

Recommended Choices for Electives:

- BUSI Electives
 - BUSI 2000U: Collaborative Leadership
 - BUSI 3590U – Design Thinking: A Human Centric Approach to Project Management
 - BUSI 3730U – Creative Problem Solving, Entrepreneurship and Imagination
 - BUSI 3930U – Leadership, Negotiation and Teamwork
- General Electives
 - COMM 1100U - Introduction to Communication Studies
 - COMM 3410U - Digital Media Storytelling
 - COMM 3740U - Digital Games Studies: From Pong to Pokemon Go
- Open Electives
 - INFR 2370: Game Sound
 - INFR 4370: Advanced Game Sound
 - INFR 2330: Intermediate Game Design



Sample Program Map: Technical Art Pathway

Y1: Fall	INFR 1395 - GDW 1	INFR 1100: Programming for Games 1	INFR 1330: Intro to Game Design	INFR 1315: Visual Narrative Foundations	INFR 1020: Essential Math for Games 1
Y1: Winter	INFR 1396 - GDW 2	INFR 1110: Programming for Games 2	INFR 13395: Digital Game Design	INFR 1325: Intro. to 2D Anim for Games	INFR 1030: Essential Math for Games 2
Y2: Fall	INFR 2395 - GDW 3	BUSI 1600: Mgmt. of the Enterprise	INFR 1350: Introduction to Computer Graphics	INFR 2345: Modeling and Animation Systems 1	INFR 2100: Programming in C/C++
Y2: Winter	INFR 2396 - GDW 4	INFR 2820: Algorithms and Data Structures	INFR 2350: Intermediate Computer Graphics	INFR 3345: Modeling and Animation Systems 2	INFR 2020: Essential Math for Games 3
Y3: Fall	INFR 3395 - GDW 5	BUSI 2550: Intro. Proj. Mgmt.	INFR 3110: Game Engine Design and Implementation	INFR 3370: Intermediate Rigging	GENERAL ELECTIVE
Y3: Winter	INFR 3396 - GDW 6	BUSI ELECTIVE	INFR 2810: Computer Architecture	INFR 3315: Cinematic Systems Design	OPEN ELECTIVE
Y4: Fall	INFR 4395 - GDW 7	BUSI 4560: Law & Ethics in Game Dev.	EXPERIENTIAL CREDIT	INFR 4440: Advanced Sculpting OR INFR 4445: Advanced Rigging	OPEN ELECTIVE
Y4: Winter	INFR 4396 - GDW 8	BUSI ELECTIVE	GENERAL ELECTIVE	GENERAL ELECTIVE	OPEN ELECTIVE

NOTE: this is for sample purposes only, some courses may be offered in alternate years and electives can appear in any slot depending on need



Game Design Pathway

# Courses			
19	GDIM Common Core		
1	EXPERIENTIAL CREDIT		
2	BUSI ELECTIVE	BUSI ELECTIVE	
3	GENERAL ELECTIVE	GENERAL ELECTIVE	GENERAL ELECTIVE
3	OPEN ELECTIVE	OPEN ELECTIVE	OPEN ELECTIVE
CLUSTERS			
4	GAME DESIGN CORE		
3	SERIOUS GAMES		
1	UX RESEARCH		
2	GAME USER RESEARCH		
2	PICK ANY 2 FROM → 3D GAME ART CORE <u>OR</u> GAME SOUND		
40	TOTAL		

Recommended Choices for Electives:

- BUSI Electives
 - BUSI 2000U: Collaborative Leadership
 - BUSI 3590U – Design Thinking: A Human Centric Approach to Project Management
 - BUSI 3730U – Creative Problem Solving, Entrepreneurship and Imagination
 - BUSI 3930U – Leadership, Negotiation and Teamwork
- General/Open Electives
 - PSYC 1000U – Introductory Psychology
 - PSYC 2020U – Social Psychology
 - PSYC 2060U – Cognitive Psychology
 - COMM 1100U - Introduction to Communication Studies
 - COMM 2411U - Digital Media Policy
 - COMM 3410U - Digital Media Storytelling
 - COMM 3740U - Digital Games Studies: From Pong to Pokemon Go



Sample Program Map: Game Design Pathway

Y1: Fall	INFR 1395 - GDW 1	INFR 1100: Programming for Games 1	INFR 1330: Intro to Game Design	INFR 1315: Visual Narrative Foundations	INFR 1020: Essential Math for Games 1
Y1: Winter	INFR 1396 - GDW 2	INFR 1110: Programming for Games 2	INFR 13395: Digital Game Design	INFR 1325: Intro. to 2D Anim for Games	INFR 1030: Essential Math for Games 2
Y2: Fall	INFR 2395 - GDW 3	BUSI 1600: Mgmt. of the Enterprise	INFR 2310: AI & Animation for Games	INFR 2345: Modeling and Animation Systems 1	INFR 2330: Intermediate Game Design
Y2: Winter	INFR 2396 - GDW 4	BUSI ELECTIVE	INFR 3360: Virtual Spaces and Level Design	INFR 2370: Game Sound	GENERAL ELECTIVE
Y3: Fall	INFR 3395 - GDW 5	BUSI 2550: Intro. Proj. Mgmt.	GENERAL ELECTIVE	INFR 4345: Game Analytics	INFR 3250: UX Research
Y3: Winter	INFR 3396 - GDW 6	BUSI ELECTIVE	INFR 3370: Social & Emotional Game Design	INFR 3350: Games User Research	OPEN ELECTIVE
Y4: Fall	INFR 4395 - GDW 7	BUSI 4560: Law & Ethics in Game Dev.	INFR 4350: Human- Computer Interaction For Games	INFR 4120: Serious Games	OPEN ELECTIVE
Y4: Winter	INFR 4396 - GDW 8	INFR 4400: Gamification	EXPERIENTIAL CREDIT	GENERAL ELECTIVE	OPEN ELECTIVE

NOTE: this is for sample purposes only, some courses may be offered in alternate years and electives can appear in any slot depending on need



Game User Research Pathway

# Courses			
19	GDIM Common Core		
1	EXPERIENTIAL CREDIT		
2	BUSI ELECTIVE	BUSI ELECTIVE	
3	GENERAL ELECTIVE	GENERAL ELECTIVE	GENERAL ELECTIVE
3	OPEN ELECTIVE	OPEN ELECTIVE	OPEN ELECTIVE
5	GAME ELECTIVE	GAME ELECTIVE	GAME ELECTIVE
	GAME ELECTIVE	GAME ELECTIVE	
CLUSTERS			
4	GAME DESIGN CORE		
1	UX RESEARCH		
2	GAME USER RESEARCH		
40	TOTAL		

Recommended Choices for Electives:

- BUSI Electives
 - BUSI 2000U: Collaborative Leadership
 - BUSI 3590U – Design Thinking: A Human Centric Approach to Project Management
 - BUSI 3730U – Creative Problem Solving, Entrepreneurship and Imagination
 - BUSI 3930U – Leadership, Negotiation and Teamwork
- General Electives
 - PSYC 1000U – Introductory Psychology
 - PSYC 2020U – Social Psychology
 - PSYC 2060U – Cognitive Psychology
 - COMM 1100U - Introduction to Communication Studies
 - COMM 2411U - Digital Media Policy
 - COMM 3410U - Digital Media Storytelling
 - COMM 3740U - Digital Games Studies: From Pong to Pokemon Go
- GAME Electives
 - INFR 4120: Serious Games
 - INFR 3370: Social & Emotional Game Design
 - INFR 4400: Gamification
 - INFR 2370: Game Sound
 - INFR 2345: Modeling and Animation Systems 1



Sample Program Map: Game User Research Pathway

Y1: Fall	INFR 1395 - GDW 1	INFR 1100: Programming for Games 1	INFR 1330: Intro to Game Design	INFR 1315: Visual Narrative Foundations	INFR 1020: Essential Math for Games 1
Y1: Winter	INFR 1396 - GDW 2	INFR 1110: Programming for Games 2	INFR 13395: Digital Game Design	INFR 1325: Intro. to 2D Anim for Games	INFR 1030: Essential Math for Games 2
Y2: Fall	INFR 2395 - GDW 3	BUSI 1600: Mgmt. of the Enterprise	INFR 2330: Intermediate Game Design	INFR 2310: AI & Animation for Games	INFR 3250: UX Research
Y2: Winter	INFR 2396 - GDW 4	BUSI ELECTIVE	GENERAL ELECTIVE	GAME ELECTIVE	GENERAL ELECTIVE
Y3: Fall	INFR 3395 - GDW 5	BUSI 2550: Intro. Proj. Mgmt.	OPEN ELECTIVE	GAME ELECTIVE	INFR 4345: Game Analytics
Y3: Winter	INFR 3396 - GDW 6	BUSI ELECTIVE	INFR 3360: Virtual Spaces and Level Design	GAME ELECTIVE	INFR 3350: Games User Research
Y4: Fall	INFR 4395 - GDW 7	BUSI 4560: Law & Ethics in Game Dev.	INFR 4350: Human- Computer Interaction For Games	GAME ELECTIVE	OPEN ELECTIVE
Y4: Winter	INFR 4396 - GDW 8	EXPERIENTIAL CREDIT	GENERAL ELECTIVE	GAME ELECTIVE	OPEN ELECTIVE

NOTE: this is for sample purposes only, some courses may be offered in alternate years and electives can appear in any slot depending on need



SERIOUS GAME DESIGN PATHWAY

# Courses			
19	GDIM Common Core		
1	EXPERIENTIAL CREDIT		
2	BUSI ELECTIVE	BUSI ELECTIVE	
3	GENERAL ELECTIVE	GENERAL ELECTIVE	GENERAL ELECTIVE
CLUSTERS			
5	GAME PROG CORE		
2	ENGINE DEVELOPMENT		
1**	UX RESEARCH		
2	GAME USER RESEARCH		
3	SERIOUS GAMES		
2**	PICK ANY 2 FROM → 3D GAME ART CORE <u>OR</u> GAME DESIGN CORE		
40	TOTAL		

**counted as OPEN ELECTIVE

Recommended Choices for Electives:

- BUSI Electives
 - BUSI 2000U: Collaborative Leadership
 - BUSI 3590U – Design Thinking: A Human Centric Approach to Project Management
 - BUSI 3730U – Creative Problem Solving, Entrepreneurship and Imagination
 - BUSI 3930U – Leadership, Negotiation and Teamwork
- General Electives
 - EDUC 4703U – Problem and Inquiry Based Learning
 - EDUC 4704U – Teaching and Learning: Curriculum Design
 - EDUC 4702U – Teaching and Learning: Evaluation and Assessment



Sample Program Map: Serious Game Design Pathway

Y1: Fall	INFR 1395 - GDW 1	INFR 1100: Programming for Games 1	INFR 1330: Intro to Game Design	INFR 1315: Visual Narrative Foundations	INFR 1020: Essential Math for Games 1
Y1: Winter	INFR 1396 - GDW 2	INFR 1110: Programming for Games 2	INFR 13395: Digital Game Design	INFR 1325: Intro. to 2D Anim for Games	INFR 1030: Essential Math for Games 2
Y2: Fall	INFR 2395 - GDW 3	BUSI 1600: Mgmt. of the Enterprise	INFR 1350: Introduction to Computer Graphics	INFR 3250: UX Research	INFR 2100: Programming in C/C++
Y2: Winter	INFR 2396 - GDW 4	INFR 2820: Algorithms and Data Structures	INFR 2810: Computer Architecture	INFR 2350: Intermediate Computer Graphics	INFR 2020: Essential Math for Games 3
Y3: Fall	INFR 3395 - GDW 5	BUSI 2550: Intro. Proj. Mgmt.	INFR 3110: Game Engine Design and Implementation	INFR 2345: Modeling and Animation Systems 1	INFR 2330: Intermediate Game Design
Y3: Winter	INFR 3396 - GDW 6	BUSI ELECTIVE	INFR 3370: Social & Emotional Game Design	GENERAL ELECTIVE	GENERAL ELECTIVE
Y4: Fall	INFR 4395 - GDW 7	BUSI 4560: Law & Ethics in Game Dev.	INFR 4120: Serious Games	INFR 4345: Game Analytics	BUSI ELECTIVE
Y4: Winter	INFR 4396 - GDW 8	EXPERIENTIAL CREDIT	INFR 4400: Gamification	INFR 3350: Games User Research	GENERAL ELECTIVE

NOTE: this is for sample purposes only, some courses may be offered in alternate years and electives can appear in any slot depending on need



Generalist Pathway

# Courses			
19	The GDIM Common Core		
3	GENERAL ELECTIVE	GENERAL ELECTIVE	GENERAL ELECTIVE
3	OPEN ELECTIVE	OPEN ELECTIVE	OPEN ELECTIVE
2	BUSI ELECTIVE	BUSI ELECTIVE	
1	EXPERIENTIAL CREDIT		
12	GAME ELECTIVE	GAME ELECTIVE	GAME ELECTIVE
	GAME ELECTIVE	GAME ELECTIVE	GAME ELECTIVE
	GAME ELECTIVE	GAME ELECTIVE	GAME ELECTIVE
	GAME ELECTIVE	GAME ELECTIVE	GAME ELECTIVE
40 TOTAL			

For those interested in breadth rather than depth in one particular area, we recommend a selection of courses from all disciplines.

Recommended Choices for Electives:

- BUSI Electives
 - BUSI 2000U: Collaborative Leadership
 - BUSI 3590U – Design Thinking: A Human Centric Approach to Project Management
 - BUSI 3730U – Creative Problem Solving, Entrepreneurship and Imagination
 - BUSI 3930U – Leadership, Negotiation and Teamwork
- General Electives
 - EDUC 4703U – Problem and Inquiry Based Learning
 - EDUC 4704U – Teaching and Learning: Curriculum Design
 - EDUC 4702U – Teaching and Learning: Evaluation and Assessment
- GAME Electives
 - INFR 1350: Intro to Computer Graphics
 - INFR 2350: Intermediate Computer Graphics
 - INFR 4460: Emerging Technologies
 - INFR 2345: Modeling and Animation Systems 1
 - INFR 3345: Modeling and Animation Systems 2
 - INFR 2330: Intermediate Game Design
 - INFR 2310: AI & Animation for Games
 - INFR 4350: Human-Computer Interaction for Games
 - INFR 2370: Game Sound
 - INFR 3350: Games User Research
 - INFR 2820: Algorithms and Data Structures
 - INFR 3360: Virtual Spaces and Level Design



Sample Program Map: General Pathway

Y1: Fall	INFR 1395 - GDW 1	INFR 1100: Programming for Games 1	INFR 1330: Intro to Game Design	INFR 1315: Visual Narrative Foundations	INFR 1020: Essential Math for Games 1
Y1: Winter	INFR 1396 - GDW 2	INFR 1110: Programming for Games 2	INFR 13395: Digital Game Design	INFR 1325: Intro. to 2D Anim for Games	INFR 1030: Essential Math for Games 2
Y2: Fall	INFR 2395 - GDW 3	BUSI 1600: Mgmt. of the Enterprise	INFR 1350: Introduction to Computer Graphics	INFR 2345: Modeling and Animation Systems 1	INFR 2330: Intermediate Game Design
Y2: Winter	INFR 2396 - GDW 4	INFR 2370: Game Sound	INFR 2350: Intermediate Computer Graphics	INFR 3345: Modeling and Animation Systems 2	INFR 2820: Algorithms & Data Structures
Y3: Fall	INFR 3395 - GDW 5	BUSI 2550: Intro. Proj. Mgmt.	INFR 2310: AI & Animation for Games	GENERAL ELECTIVE	OPEN ELECTIVE
Y3: Winter	INFR 3396 - GDW 6	INFR 3350: Games User Research	INFR 3360: Virtual Spaces and Level Design	BUSI ELECTIVE	OPEN ELECTIVE
Y4: Fall	INFR 4395 - GDW 7	BUSI 4560: Law & Ethics in Game Dev.	INFR 4350: Human-Computer Interaction for Games	BUSI ELECTIVE	GENERAL ELECTIVE
Y4: Winter	INFR 4396 - GDW 8	EXPERIENTIAL CREDIT	INFR 4460: Emerging Technologies	OPEN ELECTIVE	GENERAL ELECTIVE

NOTE: this is for sample purposes only, some courses may be offered in alternate years and electives can appear in any slot depending on need



Clusters at a Glance

GAME PROG CORE	ENGINE DEV	ADVANCED
INFR 1350: Introduction to Computer Graphics	INFR 2350: Intermediate Computer Graphics	INFR 3830: Distributed Systems and Networking
INFR 2820: Algorithms and Data Structures	INFR 3110: Game Engine Design and Implementation	INFR 3380: Industrial Design for Game Hardware Development
INFR 2100: Programming in C/C++		INFR 4460: Emerging Technologies
INFR 2020: Essential Math for Games 3		INFR 4450: Advanced Graphics for Games
INFR 2810: Computer Architecture		
GAME DESIGN CORE	SERIOUS GAMES	GAME SOUND
INFR 2330: Intermediate Game Design	INFR 4120: Serious Games	INFR 2370: Game Sound
INFR 2310: AI & Animation for Games	INFR 4400: Gamification	INFR 4370: Advanced Game Sound
INFR 3360: Virtual Spaces and Level Design	INFR 3370: Social & Emotional Game Design	
INFR 4350: Human-Computer Interaction For Games		
3D GAME ART CORE	3D GAME ART 2	
INFR 2345: Modeling and Animation Systems 1	INFR 3370: Intermediate Rigging	
INFR 3345: Modeling and Animation Systems 2	INFR 3315: Cinematic Systems Design	
	INFR 4445: Advanced Rigging	
	INFR 4440: Advanced Sculpting	
UX RESEARCH	GAME USER RESEARCH	
INFR 3250: UX Research	INFR 4345: Game Analytics	
	INFR 3350: Games User Research	



PATHWAYS at a Glance

19	GDIM Common Core
1	EXPERIENTIAL CREDIT
2	BUSI ELECTIVE
3	GENERAL ELECTIVE

GAME PROGRAMMING PATHWAY		GAME DESIGN PATHWAY	
5	GAME PROG CORE	4	GAME DESIGN CORE
2	ENGINE DEV	3	SERIOUS GAMES
4	ADVANCED	1	UX RESEARCH
3	OPEN ELECTIVES	2	GAME USER RESEARCH
1	GAME ELECTIVES	2	PICK 2: 3D GAME ART CORE <u>OR</u> GAME SOUND
		3	OPEN ELECTIVES
TECHNICAL ART PATHWAY		GAME USER RESEARCH PATHWAY	
2	3D GAME ART CORE	4	GAME DESIGN CORE
3	3D GAME ART 2	1	UX RESEARCH
5	GAME PROG CORE	2	GAME USER RESEARCH
2	ENGINE DEV	3	OPEN ELECTIVE
3	OPEN ELECTIVE	5	GAME ELECTIVE
SERIOUS GAME DESIGN PATHWAY		GENERALIST PATHWAY	
5	GAME PROG CORE	12	GAME ELECTIVE (from any cluster)



Ontario Tech University - Bachelor of IT - Game Development and Interactive Media - 2022-23

2	ENGINE DEV	3	OPEN ELECTIVE
1	UX RESEARCH		
2	GAME USER RESEARCH		
3	SERIOUS GAMES		
2	PICK 2: 3D GAME ART CORE <u>OR</u> GAME DESIGN CORE		

