

### Minor Program Adjustment

<b>Faculty:</b> Faculty of Business and IT	<b>Date:</b> Sept 18, 2017
<b>Program:</b> Game Development & Entrepreneurship	
<b>Undergraduate:</b> <input checked="" type="checkbox"/>	<b>Graduate:</b> <input type="checkbox"/>

*Minor Program Adjustments include: New required courses, Deletion of required courses, Other changes to degree requirements or program learning outcomes, New academic requirements or changes to existing requirements.*

**Motion: That CPRC approve the changes to the Game Development program as presented.**

### Proposal Brief

#### Summary of the proposed change

Removal of core courses from curriculum map: •

INFR 1300U – Creative Writing and Narrative ○

YEAR 1 FALL

○ should become an available technical elective ○ BUSI

1700U Intro to entrepreneurship to take its place

• BUSI 2120U - Accounting for IT ○ YEAR 3 FALL

○ To make room for business courses in the new proposed minor

Addition of courses to CORE curriculum map:

• INFR 1325 – Introduction to 2D Animation for Games

○ YEAR 1 WINTER

• BUSI 1130 Introduction to Financial Accounting

○ YEAR 1 WINTER

• BUSI 3730 – Creative Problem Solving,  
Entrepreneurship and Imagination ○ YEAR 3 FALL

• BUSI 2200 – Marketing Management ○ YEAR 2  
WINTER

○ Replaces our BUSI 2210 Marketing for IT course in the map but  
offered for first year students

#### Description of the ways in which the proposed change will enhance the program and/or opportunities for students

The changes to the curriculum map is intended to balance out our first year such that all aspects of Game Development are represented equally in each semester. For instance with these changes there will be 2 courses in Design, 2 courses in Math, 2 courses in Programming, 2 courses in Art, and 2 courses in Business taken by the students in first year. This will allow a broad set of knowledge and expose all aspects to the students such that they can determine which areas to focus on in higher years through minors.

Replacing BUSI 2210 with BUSI 2200 will ensure we have 2 important fundamental business courses in first year. Similarly, replacing Accounting for IT with Introduction to financial accounting will bring our entrepreneurship side close to the Entrepreneurship major in the BCOM.

Removal of INFR 1300U from the core curriculum allows us to balance out the business side. This course does not provide the fundamental knowledge for our students that is necessary for them to obtain in first year to be successful in the rest of the program. This course would become one of many technical electives in the program and taken in a later year could be used to enhance their skillsets.

BUSI2120 Accounting for IT is replaced with BUSI1130 Introduction to Financial Accounting which will provide more depth to students' accounting knowledge.

Addition of INFR 1325 to the core curriculum will balance out the technical Art aspects of the program and provide fundamentals necessary for students which they currently do not receive. This will also prepare them for INFR 2310 which is historically difficult for students thus this change could increase retention in 2<sup>nd</sup> year.

Addition of BUSI 3730U to the curriculum is performed in consultation with John Friedlan and Malcolm MacTaggart where we identified this course as a natural extension to the Entrepreneurial finance course and should be thought of as a core entrepreneurship course.

### **Process of consultation with other units if the change(s) involves students, staff, and/or faculty from other programs or courses**

Consultation with the FBIT Academic Advising team to ensure these changes work with pre-req's and credit restrictions and general flow. Consultation with instructor, Malcolm MacTaggart to identify BUSI3730 as a core course.

### **Analysis of financial and enrolment implications**

These proposals have a net-zero financial impact and can only increase retention.

**Proposed Implementation Date (state term, e.g. Fall 2017) Fall 2018**

### **Transition Plan (include a plan for all current students in the program, by year level)**

None required as this changes the 1<sup>st</sup> year map mostly and provides more opportunity for choice at the upper years.

### **Calendar Copy and/or Program Maps (highlight revisions to existing curriculum)**

#### **Year 1**

##### **Semester 1 (15 credit hours)**

- [INFR 1020U – Essential Mathematics for Games I](#)
- [INFR 1100U – Introduction to Programming](#)
- ~~[INFR 1300U – Creative Writing and Narrative Concepts](#)~~
- [INFR 1315U – Concept and Graphic Design](#)
- [INFR 1330U – Basic Introduction to Game Design](#)
- [INFR 1395U – Game Development Workshop I](#)
- **Add: BUSI 1700U – Introduction to Entrepreneurship**

##### **Semester 2 (15 credit hours)**

- ~~General elective~~
- Add: BUSI1130U Introduction to Financial Accounting
- ~~BUSI 1700U – Introduction to Entrepreneurship~~
- INFR 1325U Introduction to 2D Animation for Games
- [INFR 1030U – Essential Mathematics for Games II](#)
- [INFR 1335U – Digital Game Design](#)
- [INFR 1396U – Game Development Workshop II](#)
- [INFR 2140U – Object Oriented Programming](#)

## Year 2

### Semester 1 (15 credit hours)

- [BUSI 2550U – Introduction to Project Management](#)
- [INFR 1350U – Introduction to Computer Graphics](#)
- [INFR 2310U – Computer Animation: Algorithms and Techniques](#)
- [INFR 2330U – Intermediate Game Design](#)
- [INFR 2345U – Modelling and Animation Systems I](#)
- [INFR 2395U – Game Development Workshop I](#)

### Semester 2 (15 credit hours)

- ~~[BUSI 2210U – Marketing in the Information Technology Sector](#)~~
- Add: BUSI2200U Marketing Management
- [INFR 2350U – Intermediate Computer Graphics](#)
- [INFR 2370U – Game Sound](#)
- [INFR 2396U – Game Development Workshop II](#)
- [INFR 2810U – Computer Architecture](#)
- [INFR 2820U – Algorithms and Data Structures](#)

## Year 3

### Semester 1 (15 credit hours)

- General elective
- Add: Open Elective • ~~[BUSI 2120U – Accounting for IT](#)~~
- [INFR 3110U – Game Engine Design and Implementation](#)
- [INFR 3335U – Social and Multiplayer Game Design](#)
- [INFR 3345U – Modelling and Animation Systems II](#)
- [INFR 3395U – Game Development Workshop I](#)

### Semester 2 (15 credit hours)

- Add: BUSI3730U Creative Problem Solving, Entrepreneurship and Imagination
- [BUSI 2700U – Entrepreneurial Finance](#)
- [INFR 3315U – Cinematic Systems Design](#)
- [INFR 3350U – Games User Research](#)
- [INFR 3396U – Game Development Workshop II](#)
- [INFR 3830U – Distributed Systems and Networking](#)

## Year 4

### Semester 1 (15 credit hours)

- Two technical electives
- [BUSI 4340U – Business of Gaming](#)
- [INFR 4350U – Human-Computer Interaction for Games](#)

- [INFR 4560U – Law and Ethics in Game Development](#) •
- One of:
- [BUSI 4798U – Incubator I](#) or
- [BUSI 4990U – Capstone Study Project I](#) **Semester 2 (15 credit hours)**
- Open elective
- Two technical electives
- [INFR 4320U – Artificial Intelligence for Gaming](#)
- One of:
- [BUSI 4799U – Incubator II](#) or
- [BUSI 4995U – Capstone Study Project II](#)

**APPROVAL DATES**

Curriculum Committee approval	October 23, 2017
Faculty Council approval	November 2, 2017
CPRC Approval	17 November 2017
Submission to Academic Council	

**TEMPLATE 8-B****COURSE CHANGE TEMPLATE***For new courses see New Course Template*

<b>Faculty: Faculty of Business and IT</b>	
<b>Program: Game Development &amp; Entrepreneurship</b>	
<b>Subject Code and Course Number: BUSI 2120</b>	<b>Current Full Course Title: Accounting for IT</b>
<input checked="" type="checkbox"/> <b>Core</b> <input type="checkbox"/> <b>Elective</b>	<b>Current Short-Form Course Title (max. 30 characters):</b>

**COURSE CHANGES (check all that apply)**

<input type="checkbox"/>	Course title	<input type="checkbox"/>	Credit weighting
<input type="checkbox"/>	Course description	<input type="checkbox"/>	Contact hours
<input type="checkbox"/>	Course number	<input type="checkbox"/>	Prerequisites
<input type="checkbox"/>	Subject code	<input type="checkbox"/>	Co-requisites
<input type="checkbox"/>	Grade Mode (N – alpha grade, P – Pass/Fail)	<input type="checkbox"/>	Cross-listings
<input type="checkbox"/>	Learning outcomes	<input type="checkbox"/>	Credit restrictions
<input type="checkbox"/>	Course Instructional Method (CLS, HYB, WB1, WEB)	<input type="checkbox"/>	Equivalency Courses
<input type="checkbox"/>	Delete course from Academic Calendar	<input checked="" type="checkbox"/>	Delete course from Program only (attach this form to program modification)
<input type="checkbox"/>	Supplementary Fees	<input type="checkbox"/>	Teaching and assessment methods
<input type="checkbox"/>	Other (please specify)	<input type="checkbox"/>	Term Change

**DESCRIPTION AND/OR REASON FOR CHANGE AND WAYS IN WHICH IT MAINTAINS/ENHANCES COURSE/PROGRAM OBJECTIVES**

Change course from core course to elective. This applies only to the Game Development Program. This course is to be replaced in the curriculum by BUSI1130U (Intro to Financial Accounting). BUSI1130U provides more depth to students' accounting knowledge than BUSI2120 and will help to bring the Game Development & Entrepreneurship program in line with the BComm Entrepreneurship major.

**CHANGE TO CALENDAR DESCRIPTION (if required)**

<b>Current</b>	<b>Proposed</b>
Core course	Replace with BUSI1130U Introduction to Financial Accounting

**CHANGE TO CONTACT HOURS (if applicable):**

Lecture	Lab
Tutorial	Other

**OTHER CHANGES (if applicable)**

Prerequisites	
Co-requisites	
Credit restrictions	
Credit exemptions	
Grading scheme	<input type="checkbox"/> letter grade <input type="checkbox"/> pass/fail

**CHANGES TO LEARNING OUTCOMES (if applicable)**

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**CONSULTATION AND FINANCIAL IMPLICATIONS, WHERE APPROPRIATE**

N/A
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**EFFECTIVE SEMESTER (Specify Term e.g. Fall 2017)**

Fall 2018
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**APPROVAL DATES**

Faculty Curriculum Committee approval	<b>October 23, 2017</b>
Faculty Council approval	November 2 2017
Reported to CPRC	17 November 2017

**TEMPLATE 8-B**

**COURSE CHANGE TEMPLATE**

*For new courses see New Course Template*

<b>Faculty: Faculty of Business and IT</b>	
<b>Program: Game Development &amp; Entrepreneurship</b>	
<b>Subject Code and Course Number: BUSI 2210U</b>	<b>Current Full Course Title: Marketing for IT</b>
<input checked="" type="checkbox"/> <b>Core</b> <input type="checkbox"/> <b>Elective</b>	<b>Current Short-Form Course Title (max. 30 characters):</b>

**COURSE CHANGES (check all that apply)**

<input type="checkbox"/>	Course title	<input type="checkbox"/>	Credit weighting
<input type="checkbox"/>	Course description	<input type="checkbox"/>	Contact hours
<input type="checkbox"/>	Course number	<input type="checkbox"/>	Prerequisites
<input type="checkbox"/>	Subject code	<input type="checkbox"/>	Co-requisites
<input type="checkbox"/>	Grade Mode (N – alpha grade, P – Pass/Fail)	<input type="checkbox"/>	Cross-listings
<input type="checkbox"/>	Learning outcomes	<input type="checkbox"/>	Credit restrictions
<input type="checkbox"/>	Course Instructional Method (CLS, HYB, WB1, WEB)	<input type="checkbox"/>	Equivalency Courses
<input type="checkbox"/>	Delete course from Academic Calendar	<input checked="" type="checkbox"/>	Delete course from Program only (attach this form to program modification)
<input type="checkbox"/>	Supplementary Fees	<input type="checkbox"/>	Teaching and assessment methods
<input type="checkbox"/>	Other (please specify)	<input type="checkbox"/>	Term Change

**DESCRIPTION AND/OR REASON FOR CHANGE AND WAYS IN WHICH IT MAINTAINS/ENHANCES COURSE/PROGRAM OBJECTIVES**

Change course from core course to elective.  
 This course is to be replaced in the curriculum by BUSI 2200U (Marketing Management). BUSI 2200U provides more depth to students' accounting knowledge than this course and will help to bring the Game Development & Entrepreneurship program in line with the BComm Entrepreneurship major.

**CHANGE TO CALENDAR DESCRIPTION (if required)**

<b>Current</b>	<b>Proposed</b>
Core	Elective

**CHANGE TO CONTACT HOURS (if applicable):**

Lecture	Lab
Tutorial	Other

**OTHER CHANGES (if applicable)**

Prerequisites	
Co-requisites	
Credit restrictions	
Credit exemptions	
Grading scheme	<input type="checkbox"/> letter grade <input type="checkbox"/> pass/fail

**CHANGES TO LEARNING OUTCOMES (if applicable)**

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**CONSULTATION AND FINANCIAL IMPLICATIONS, WHERE APPROPRIATE**

N/A
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**EFFECTIVE SEMESTER (Specify Term e.g. Fall 2017)**

Fall 2018
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**APPROVAL DATES**

Faculty Curriculum Committee approval	<b>October 23, 2017</b>
Faculty Council approval	November 2 2017
Reported to CPRC	17 November 2017



**TEMPLATE 8-B**

**COURSE CHANGE TEMPLATE**

*For new courses see New Course Template*

<b>Faculty: Faculty of Business and IT</b>	
<b>Program: Game Development &amp; Entrepreneurship</b>	
<b>Subject Code and Course Number: INFR 1300</b>	<b>Current Full Course Title: Creative Writing &amp; Narrative</b>
<input checked="" type="checkbox"/> <b>Core</b> <input type="checkbox"/> <b>Elective</b>	<b>Current Short-Form Course Title (max. 30 characters):</b>

**COURSE CHANGES (check all that apply)**

<input type="checkbox"/>	Course title	<input type="checkbox"/>	Credit weighting
<input type="checkbox"/>	Course description	<input type="checkbox"/>	Contact hours
<input type="checkbox"/>	Course number	<input type="checkbox"/>	Prerequisites
<input type="checkbox"/>	Subject code	<input type="checkbox"/>	Co-requisites
<input type="checkbox"/>	Grade Mode (N – alpha grade, P – Pass/Fail)	<input type="checkbox"/>	Cross-listings
<input type="checkbox"/>	Learning outcomes	<input type="checkbox"/>	Credit restrictions
<input type="checkbox"/>	Course Instructional Method (CLS, HYB, WB1, WEB)	<input type="checkbox"/>	Equivalency Courses
<input type="checkbox"/>	Delete course from Academic Calendar	<input checked="" type="checkbox"/>	Delete course from Program only (attach this form to program modification)
<input type="checkbox"/>	Supplementary Fees	<input type="checkbox"/>	Teaching and assessment methods
<input type="checkbox"/>	Other (please specify)	<input type="checkbox"/>	Term Change

**DESCRIPTION AND/OR REASON FOR CHANGE AND WAYS IN WHICH IT MAINTAINS/ENHANCES COURSE/PROGRAM OBJECTIVES**

**Change course from core course to elective.**  
 Removal of INFR 1300U from the core curriculum. As a group, we discussed the need for the Creative Writing & Narrative (INFR 1300) course and determined that this is a great course as an elective but does not provide the fundamental knowledge for our students that is necessary for them to obtain in first year to be successful in the rest of the program. We determined that adding INFR 1325 (Intro to 2D animation) would better suit the students in terms of fundamental knowledge. INFR 1325 was higher priority in terms of skill-sets and fundamental knowledge than INFR 1300U. The removal of INFR 1300 also allows us to balance the Entrepreneurship courses in first year. With these changes, students will have a well-balanced first year of study with equal parts of Programming, Design, Technical Art, Business, and Fundamentals. Moreover, keeping INFR 1300 as a technical elective will provide us with another option to offer variety in our electives.

**CHANGE TO CALENDAR DESCRIPTION (if required)**

<b>Current</b>	<b>Proposed</b>
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Tutorial	Other
Core	Elective

**CHANGE TO CONTACT HOURS (if applicable):**

Lecture	Lab
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**OTHER CHANGES (if applicable)**

Prerequisites	
Co-requisites	
Credit restrictions	
Credit exemptions	
Grading scheme	<input type="checkbox"/> letter grade <input type="checkbox"/> pass/fail

**CHANGES TO LEARNING OUTCOMES (if applicable)**

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**CONSULTATION AND FINANCIAL IMPLICATIONS, WHERE APPROPRIATE**

N/A
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**EFFECTIVE SEMESTER (Specify Term e.g. Fall 2017)**

Fall 2018
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**APPROVAL DATES**

Faculty Curriculum Committee approval	<b>October 23, 2017</b>
Faculty Council approval	<b>November 2, 2017</b>
Reported to CPRC	<b>17 November 2017</b>

**COURSE CHANGE TEMPLATE**

*For new courses see New Course Template*

## TEMPLATE 8-A

**Intro to 2D Animation***For changes to existing courses see Course Change Template*

<b>Faculty:</b> Faculty of Business and IT			
<b>Full Course Title:</b> Introduction to 2D Animation for Games			
<b>Short Form Course Title (max 30 characters):</b> Intro to 2D Animation			
<b>Subject Code and Course number:</b> INFR 1325U	<b>Cross-listings:</b>	<input checked="" type="checkbox"/> Core <input type="checkbox"/> Elective	<b>Credit weight:</b> 3.0
<b>Contact hours (please indicate number of hours for each component):</b> <input checked="" type="checkbox"/> Lecture 3hr <input type="checkbox"/> Lab <input type="checkbox"/> <input checked="" type="checkbox"/> Tutorial 3 hrs <input type="checkbox"/> Other			

**PROGRAM(S) (if applicable, form should accompany a program adjustment/proposal)**

Game Development & Entrepreneurship. This course does not impact any other programs.
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**CALENDAR DESCRIPTION**

This course provides a gentle introduction to the fundamental concepts of animation for game development. The course will focus on 2D animation building on concepts learned in previous courses and understanding how to create smooth and interesting animation aesthetically and how to incorporate this into their game development pipeline.
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<b>Prerequisites</b>	INFR 1315U: Concept and Graphic Design
<b>Co-requisites</b>	
<b>Credit restrictions</b>	
<b>Credit exemptions</b>	
<b>Grading scheme</b>	<input checked="" type="checkbox"/> letter grade <input type="checkbox"/> pass/fail

**LEARNING OUTCOMES (this section is required)**

<p>Students will be able to:</p> <ul style="list-style-type: none"> <li>Experiment with form manipulation in time and space in animation.</li> <li>Practice the animation of objects in perspective while maintaining structure</li> <li>Define the 12 principles of animation</li> <li>Identify the 12 animation principles in existing animations</li> <li>Apply animation principles to create effective animations for games</li> <li>Create a 2D sprite-based walk cycle for a game character</li> <li>Recognize principles of aesthetic design for animations in games</li> <li>Apply the skills learned to their integrated game development projects</li> </ul>
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**COURSE INSTRUCTIONAL METHOD**

<p>(check all that <u>may</u> apply)</p> <p><input checked="" type="checkbox"/> CLS (in-class)    <input type="checkbox"/> HYB (in-class and online)</p> <p><input type="checkbox"/> WB1 (synchronous online delivery)</p> <p><input type="checkbox"/> WEB (asynchronous online delivery)</p>
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**TEACHING AND ASSESSMENT METHODS**


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8-A New Course Template  
 Labs and Tutorials.

UOIT Quality Assurance Handbook **Teaching Methods: Lecture, Demonstrations, Application.**

**Assessment: Projects, Assignments, Quizzes.**

**CONSULTATION AND FINANCIAL IMPLICATIONS, WHERE APPROPRIATE**

**This course replaces an elective but builds on their skills and knowledge formed in the first semester course which is invaluable to their education and careers.**

**EFFECTIVE SEMESTER (Specify Term e.g. Fall 2017)**

**Winter 2019**

**APPROVAL DATES**

Curriculum Committee approval	<b><i>October 23, 2017</i></b>
Faculty Council approval	<b><i>November 2, 2017</i></b>
Submission to CPRC/GSC	<b><i>17 November 2017</i></b>

## Game Development & Entrepreneurship Bachelor of Information Technology

2018 Start – CHANGES AS MARKED

REMOVE FROM MAP

NEW TO MAP

NEW COURSE

MOVED IN

MAP

	INFR 1330U	INFR 1020U	INFR 1100U	INFR 1315U	INFR 1300U Creative Writing
Year 1	Introduction to	Essential Math	Introduction to	Concept and	and Narrative
FALL	Game Design	for Games I	Programming	Graphic Design	BUSI 1700U
					Introduction to

		INFR 1395U	Game Development Workshop I	BUSI 1700U	Entrepreneurship
	INFR 1335U	INFR 1030U	INFR 2140U	Introduction to	General Elective BUSI 1130U
Year 1	Entrepreneurship				
WINTER	Digital Game Design	Essential Math for Games II	Object Oriented Programming	INFR 1325U 2D Animation	Introduction to Financial Accountin
g Principles	INFR 1396U Game Development Workshop II				
Year 2	INFR 1350U Introduction to	INFR 2310U Computer Animation:	INFR 2345U Modelling	INFR 2330U Intermediate Game	BUSI 2550U Introduction to

FALL	Computer Graphics	Algorithms and Techniques	and Animation Systems I	Design	Project Management
		INFR 2395U Game Development Workshop I			
Year 2	INFR 2350U Intermediate	INFR 2370U Game Sound	INFR 2810U Computer Architecture	INFR 2820U Algorithms and Data Structures	<del>BUSI 2210U Marketing for I.T.</del> BUSI 2200U Marketing Management
WINTER	Computer Graphics				
		INFR 2396U Game Development Workshop II			
Year 3	INFR 3110U Game Engine	INFR 3345U Modelling	INFR 3335U Social & General Elective		<del>General Elective</del> BUSI 3730U Creative Problem Solving, Entrepreneurship and Imagination
FALL	Design and Implementation	and Animation Systems II	Multiplayer Game Design		
		INFR 3395U Game Development Workshop I			
Year 3	INFR 3315U Cinematic Systems	INFR 3350U Game User Research	INFR 3830U Distributed Finance Networking	BUSI 2700U Entrepreneurial	Open Elective
WINTER	Systems and Design				
		INFR 3396U Game Development Workshop II			

Year 4 FALL	INFR 4350U Human-Computer Interaction for Games	INFR 4560U Law and Ethics of Game Development	BUSI 4340U Business of Gaming	Technical Elective	Technical Elective
	BUSI 4990U Capstone I				
Year 4 WINTER	INFR 4320U Artificial Intelligence for Gaming	BUSI 4995U Capstone II	Technical Elective	Technical elective	Open Elective

Information contained herein is subject to change at the discretion of the Faculty of Business and I.T., and is distributed to students for course schedule planning assistance. Any questions should be addressed to the FBIT Academic Advising office ([fbitadvising@uoit.ca](mailto:fbitadvising@uoit.ca)).