



```
8  
9 require 'capybara/rspec'  
10 require 'capybara/reils'  
11  
12 Capybara.javascript_driver = :webkit  
13 Category.delete_all; Category.create  
14 Shoulda::Matchers.configure do |config|  
15   config.integrate do |with|  
16     with.test_framework :rspec  
17     with.library :reils  
18   end  
19 end  
20  
21 # Add additional requires below this line  
22 # Requires supporting ruby files with spec support  
23 # spec/support/**/*.rb  
24
```

BACHELOR OF SCIENCE IN GAME DEVELOPMENT AND ANIMATION

**NEW
PROGRAM**

ADMISSION CRITERIA

- Recognized general education diploma or its equivalent
- Students joining MCBS must go through an English placement test to determine the appropriate English level
- Students presenting a valid score of 5-5.5 in IELTS or 65-79 in internet based TOEFL (iBT) are exempted from the English program
- Students will need to go through Mathematics and IT placements tests to determine their levels of proficiency in these subjects as they are part of the GFP or possible exemption

PROGRAM OVERVIEW

The BS program in Game Development and Animation is a perfect fit for students passionate about creating immersive and interactive experiences. The game industry has grown to be a multi-billion-dollar sector as technology progresses, and animation is now a crucial part of films, television programs, and other visual media.

The program covers courses such as Computer Graphics, Interactive Animation Techniques, 3D animation, Game Design, Digital Animation and Effects, Simulation & Game Programming, Mobile Game Development, Software Quality Assurance and Testing, Artificial Intelligence for Games Development, Machine Learning for Game Development, Virtual Reality, Augmented Virtual & Mixed Reality, Digital Imaging, etc along with basic computer science courses in programming and software development.

BS IN GAME DEVELOPMENT AND ANIMATION

PROGRAM STRUCTURE

Duration: Bachelor's degree requires about 8 semesters or 4 years

Program delivery: 12-15 credits per normal semester and 6 credits per summer semester

Internship: Placement on a minimum of 6-weeks internship.

Courses: Apart from courses closely related to the program, students take general education courses.

- ⊙ Core Courses: 60 credits
- ⊙ Communication skills: 9 credits
- ⊙ Humanities: 9 credits
- ⊙ Social Sciences: 9 credits
- ⊙ Mathematics Requirements: 9 credits
- ⊙ Science Requirements: 8 credits
- ⊙ Core Electives: 15 credits
- ⊙ Internship: 1 credit

Program Core Requirements - 60 credits

COSC 1301	Object Oriented Programming I	(3)
ICT 128	Web Application Techniques	(3)
ICT 205	Software Engineering	(3)
CPT 220	Programming and Data Structures	(3)
ISEC 2340	Principle of Information Security	(3)
COSC 2335	Introduction to Computer Graphics	(3)
COSC 2336	Interactive Animation Techniques	(3)
COSC 2338	Introduction to 3D animation	(3)
COSC 3335	Introduction to Game Design	(3)
COSC 3340	Digital Animation and Effects	(3)
COSC 3350	Simulation & Game Programming	(3)
COSC 3379	Mobile Game Development	(3)
COSC 3395	Software Quality Assurance and Testing	(3)
COSC 4304	Artificial Intelligence for Games Development	(3)
COSC 4344	Machine Learning for Game Development	(3)
ITEC 4320	Introduction to Virtual Reality	(3)
ITEC 4322	Augmented Virtual & Mixed Reality	(3)
ITEC 4324	Introduction to Digital Imaging	(3)
COSC 4378	Capstone Game Development Project I	(3)
COSC 4379	Capstone Game Development Project II	(3)

Core Electives - 15 credits

COSC 2325	Data Communication and Networks (Required)	(3)
COSC 2301	Object Oriented Programming II	(3)
COSC 4326	Data Visualization	(3)
COSC 4354	Digital Image Processing	(3)
COSC 4390	Introduction to Deep Learning	(3)
COSC 4392	Federated Machine Learning	(3)
COSC 4393	Special Topics in Game Development	(3)
COSC 4394	Special Topics in Animation	(3)
ITEC 4332	Audio-Visual Communication Technology	(3)

Internship

ICT 3145	Internship	(1)
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