

# Bachelor of Information Technology (Games and Graphics Programming)

2018

Undergraduate

Learn to write code or use game-development engines to create computer or video games in a studio environment that mirrors the latest games industry practice.

This program is multidisciplinary, industry-focused and the only one of its kind in Australia.

You'll work with artists and producers to create or modify the game to enhance its capabilities, incorporating digital graphics, animation, sound, video, photographs and images.

This unique program mirrors the games design industry, giving you the chance to work with digital art teams in a studio environment to develop computer games and graphics software.

Delivered in the context of an IT and design framework, you will learn specialised skills in games and graphics programming.

You'll learn to read and write computer code (using both game-development engines and lower-level programming libraries) to create video games. You'll create or modify games to enhance your capabilities, incorporating digital graphics, animation, sound, video, photographs and images.

Studies are set in the context of a broader computer science and software engineering framework. This means graduates will be qualified to work in the games industry as well as the IT industry more generally.

## Career outlook

Graduates typically work in the games and computer graphics industries or the general IT industry.

On completion of the degree, you will have acquired aesthetic and technical abilities in art, design and programming.

This provides entry into industry as animators, 3D visualisers and modellers, games programmers, graphics programmers, interface designers, and digital artists.

The types of careers this qualification leads to may include:

- games programming
- special FX, graphics, virtual reality programming
- robotics and simulation
- web programming.

## International opportunities

RMIT partners with over 150 organisations around the world to provide you with with global work and study opportunities. You could spend a semester studying abroad, take part in a study tour or complete an international internship.

## Industry connections

You'll work on interactive media projects with students from the design programs. Working in a multidisciplinary environment creates a setting that closely follows the games development process in the industry.

Work placements with games companies are also encouraged to give you a real industry experience.

## Pathways

Graduates of the RMIT Associate Degree in Information Technology who achieve a grade point average (GPA) of at least 3.0 out of 4.0 may be eligible for credit of six courses (equivalent to 144 credit points), if successful in gaining a place.

Please note that the amount of time required to complete the program may exceed two years due to the availability and sequencing of some major electives and is also dependent on which semester you commence the program.

## Program snapshot

Program code: BP215

### Duration

Full-time: 3 years

### Location

City campus

### Selection mode

ATAR (2017 – Not Published)

### How to apply

Semester 1: VTAC  
[vtac.edu.au](http://vtac.edu.au)

Semester 2: Direct to RMIT  
[rmit.edu.au/programs/apply/direct](http://rmit.edu.au/programs/apply/direct)

### Fees

For local fee information:  
[rmit.edu.au/programs/fees](http://rmit.edu.au/programs/fees)

### Contact

Info Corner  
330 Swanston Street  
(cnr La Trobe Street)  
Melbourne VIC 3000  
Tel. +61 3 9925 2260

[rmit.edu.au/programs/bp215](http://rmit.edu.au/programs/bp215)

## Program structure

The degree consists of eight core and elective courses per year, selected from a wide range of programming and design electives.

Studies are set in the context of a broader computer science and software engineering framework, applicable to the IT industry in general.

You'll undertake projects in the games studio in the first year and interactive digital media in the third year, where classes are delivered largely in studio mode. In the second and third years you will specialise in your area of interest.

A key result of your study will be a professionally produced game to industry standards. Through the process of producing this game, you learn about the games industry first hand, as the games studio environment replicates industry conditions.

This process will hone your specialist skills in graphics, programming, design and web development, which you will learn in the core and elective elements of the program.

### Program elective examples

- Art After Videogames
- Artificial Intelligence
- Digital Media Computing
- Game Studies
- Games and Artificial Intelligence Techniques
- Independent Videogames
- Scripting Language Programming
- The Play Society
- Writing for Videogames

Year 1	Games Studio 1	Web3D and Graphics Technologies	Programming Techniques	Discrete Structures in Computing
	Games Studio 2	Mathematics for Advanced Computing	Advanced Programming Techniques	Software Engineering Fundamentals
Year 2	Data Communication and Net-Centric Computing	Network Programming	Interactive 3D Graphics and Animation	Algorithms and Analysis
	Programming Using C++	Real-Time Rendering and 3D Games Programming	Program elective	Program elective
Year 3	Game Mechanics and Game Play Programming	Interactive Digital Media Project A	Interactive Digital Media Project B	University elective
	Program elective	Program elective	Program elective	University elective

Compulsory courses
  Program electives
  University electives

Please note: This is an example of the program structure. Courses may change and may not be available each semester.

## Entrance requirements

Successful completion of an Australian Year 12 senior secondary certificate of education or equivalent.

### Prerequisites

Current Year 12 prerequisites units 3 and 4 – a study score of at least 25 in one of Mathematical Methods (CAS) or Specialist Mathematics; and a study score of at least 25 in any English (except EAL) or at least 30 in English (EAL).

SEAS Form: This is a gender under represented program and awards SEAS bonus points to female applicants. To be eligible you must submit a VTAC SEAS application and select category 1.

### Additional information

Non-Year 12 applicants may submit additional information if they would like it to be considered. For semester 1 intake, this can be completed through the VTAC Personal Statement online. For semester 2 intake, this can be completed through the personal statement in the Apply Direct application.