

# COMP 3021 SPECIAL EFFECTS PROGRAMMING

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**Credit Points** 10

**Legacy Code** 301173

**Coordinator** Anton Bogdanovych ([https://directory.westernsydney.edu.au/search/name/Anton Bogdanovych/](https://directory.westernsydney.edu.au/search/name/Anton%20Bogdanovych/))

**Description** This subject will focus on develop programming code to write shaders to create special effects, such as fog, shadows, fire, water, clouds, lightning, motion blur and reflections. These type of shaders are often seen in games and movies. Students will also learn about generic programming algorithms involved in building special effects.

**School** Computer, Data & Math Sciences

**Discipline** Computer Graphics

**Student Contribution Band** HECS Band 2 10cp

Check your fees via the Fees ([https://www.westernsydney.edu.au/currentstudents/current\\_students/fees/](https://www.westernsydney.edu.au/currentstudents/current_students/fees/)) page.

**Level** Undergraduate Level 3 subject

## Learning Outcomes

On successful completion of this subject, students should be able to:

1. Create special effects with `◆eShaders◆f` and test under controlled scenarios
2. Demonstrate the ability to program a custom `◆eShader◆f`
3. Implement common special effects and test under controlled scenarios
4. Develop transferrable practical skills in programming special effects for games

## Subject Content

Shader Programming Basics  
 Creating Fog  
 Simulating Fire  
 Writing Water shaders  
 Generating Clouds  
 Motion Blur  
 Reflections

## Assessment

The following table summarises the standard assessment tasks for this subject. Please note this is a guide only. Assessment tasks are regularly updated, where there is a difference your Learning Guide takes precedence.

Type	Length	Percent	Threshold	Individual/ Group Task	Mandatory
Applied Project	1000 lines of code	50	N	Individual	Y
Final Exam	2 Hours	50	N	Individual	Y