

# 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 unit 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 HECS Band contribution amount 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.

Item	Length	Percent	Threshold	Individual/ Group Task
Workshop Portfolios	1000 lines of code	50	N	Individual
Final Exam	2 Hours	50	N	Individual

Teaching Periods