COMP 2018 SIMULATION FUNDAMENTALS

Credit Points 10

Legacy Code 301167

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Description In the last couple of decades computer modelling and simulation has evolved into an important discipline used in nearly every aspect of life from computer games to banking. What was once a tool for training pilots is now a capability to better understand human behaviour, enterprise systems, disease proliferation, and much more. This is an introductory, problem-based unit, where students will learn by doing. Students will acquire ability to use different simulation methodologies and tools such as InsightMaker and AnyLogic to build new insights into the world around you and learn how to share these insights effectively with others.

School Computer, Data & Math Sciences

Discipline Computer Science, Not Elsewhere Classified.

Student Contribution Band HECS Band 2 10cp

Check your fees via the Fees (https://www.westernsydney.edu.au/currentstudents/current_students/fees/) page.

Level Undergraduate Level 2 subject

Learning Outcomes

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

1. Explain the goals of simulations
2. Conclude the benefits and drawbacks of simulations
3. Demonstrate building simulations by using specific tools and techniques
4. Interpret standard simulation methods and practices

Subject Content

Goal of simulation
When simulation is an appropriate tool
When simulation is not appropriate
Examples of simulation techniques
Model thinking
Simulation methods
Modelling dynamic systems using various types of simulation software

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
Portfolio	Portfolio package	50	N	Group	Y
Final Exam	2 Hours	50	N	Individual	N