Computer Engineering

Oliver Diessel

o.diessel@unsw.edu.au

Level 5, K17 (CSE) Building



Computer Engineering

- Bridges the gap between hardware and software
- Focuses on the structure and integrated design of hardware & software components, systems and networks to achieve specified objectives
- Foundations: maths, physics, electrical engineering & computer science
- Develops skills in analyzing, designing & implementing general purpose and application specific computer systems



Comp Eng Program Structure

LEVEL 1 (10 core courses)

Programming Fundamentals Computer System Fundamentals Software Engineering Fundamentals Electrical Circuit Fundamentals Engineering Design and Innovation Mathematics x 3 Physics x 2

LEVEL 2 (6 core courses)

Object-Oriented Design & Programming Data Structures & Algorithms Circuits and Signals Analogue Electronics Engineering Design and Professional Practice Mathematics

LEVEL 3 (4 core courses)

Computer Architecture
Operating
Systems
Digital Circuits and
Systems
Design
Project
Level 3
Discipline
Electives x 2
Free
Electives x 2
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LEVEL 4 (4 core courses)

Design Project ■ Research Thesis ■ Professional Issues and Ethics ■ Level 4 Discipline Electives x 2 ■ General Electives x 2

+ Industry training



Possible Careers

- Design, build & maintain HW components, software, systems, networks...
- Work in robotics, AI, analytics, data storage, geospatial information, image, video, sound and music processing...
- Automate manufacturing, mining, agriculture, transportation, communications, space industries...
- In technology companies, entertainment, finance, logistics, sales...
- In government and research agencies, including health, education, law, police, defence, security...

... ask yourselves: which activities won't ever involve computing?

