

ICT5152 Software and Systems Design

Unit Description

Through this unit, students will develop foundational knowledge, and skills required to construct well-designed computer programs. Students will gain a view of the individual steps within the complete software development life cycle (SDLC) from initial problem definition, design and algorithm development to development and coding. Students will learn the systems analysis techniques, tools, and methods involving requirements analysis, problem identification, feasibility assessment, data modelling, use case analysis, specifications, and sociotechnical issues of the systems development life cycle. They will also build their skills in the foundations of Object-Oriented Programming (OOP), Object-Oriented Analysis and Design (OOAD) and the essential usability design principles.

Credit Points	8 credit points
Duration	12 weeks (10 teaching weeks and 2 revision and assessment weeks)

Unit Learning Outcomes

On successful completion of this unit, students will be able to:

1. Develop applications using appropriate standards.
2. Articulate the key principles of interface design and different approaches to the Software Development Life Cycle.
3. Create justifiable system requirements for a range of situations.
4. Apply UML modelling to the analysis and design of business information systems.