

# Fundamentals of Software Engineering

**This Tutorial is based on questions from the book Software Engineering 10 by Ian Sommerville and is based on selected material covered in chapter 5 and chapter 6. Use the lecture slides as a guide to what was covered. You will also need to ensure that you have read through the relevant parts of chapters 5 and 6. You will return to the topics omitted from chapter 5 and 6 in other modules in later years.**

## Week 7 Tutorial

### Modelling and Architectural Design

1. What perspectives may be used for system modelling?
2. What UML diagram types may be used to represent the essential features of a system?
3. What is described in a context model?
4. What are the principal components of a textual use-case description?
5. How is generalization used to simplify the models of a system with many similar objects?
6. What are the advantages of explicitly designing and documenting a software architecture?
7. What are the two ways in which an architectural model of a system may be used?
8. List 4 fundamental questions that should be addressed in architectural design?
9. What is the most important advantage of a client-server architecture?
10. What are the principal functions of the 4 layers in a generic information system architecture?