

Module Title:	Engineering Software 2
Academic year:	2009 – 2010
Credit Value:	4 – Mandatory
Pre- requisites:	Engineering Software 1
Assessment:	70% Final Exam, 30% Continuous Assessment (C.A.)
Aims	The Aim of this subject is to give the student the necessary skills and knowledge to allow the student to design, implement and test programs written in a high level object oriented language, such as the C++ language. It aims to build on the outcomes of Engineering Software 1, using more advanced techniques.
Module Content	<ul style="list-style-type: none"> • Object Oriented Concepts • Link Lists using classes • Overloading and Composition • Inheritance and Polymorphism • Fundamentals of Object Oriented Design
Intended Learning Outcomes:	<p>On successful completion of the module the student will be expected to be able to:</p> <ol style="list-style-type: none"> 1. Explain and Manipulate link lists of classes. 2. Overload Operators in classes. 3. Explain the workings of the host object pointer. 4. Explain the behaviour friend functions within classes. 5. Use friend functions within classes. 6. Use Composition & inheritance in classes. 7. Explain and implement polymorphism and dynamic binding 8. Use abstract base classes 9. Implement Associations between classes 10. Use practical techniques introduced in SDQ41 11. Work effectively as a team member