Information and Communications Technology Industry Training Advisory Committee
Software Products and Software Services (SW) branch
Unit of Competencies

1. Title	Propose a detailed level design (DLD) of the software	
2. Code	ITSWDM603A	
3. Range	Formulate, analyse, evaluate and propose a detailed level design (DLD) of the software based on its SRS, AD, and HLD in the context of development of software products / services within an organisation or for a client [Design Development Maintenance – Software/Systems Design]	
4. Level	6	
5. Credit	1	
6. Competency		Performance Requirement
	6.1 Understand the requirements of an high level design of software/system	Be able to ▪ understand the basic principles, methodologies and techniques in the whole software process life cycle ▪ appreciate the objectives of software/system detailed level design and its relation with architecture design, high level design and other phases of the software process cycle ▪ understand the software/system requirements specification, architecture design and high level design
	6.2 Formulate a detailed level design of the software/system	Be able to ▪ describe any assumptions, dependencies, limitations and constraints regarding the physical aspects of the software/system design ▪ describe its detailed level (physical) design of each program component, its processing logic, information flow and its execution pre-conditions and post-conditions ▪ define program components' physical interfaces and their interaction and dependencies ▪ document a software/system detailed-level design using appropriate models describing the composition of the software/system ▪ describe the program logic of each system component and its information flow and its relation with other components ▪ highlight part of the design involving business process re-engineering
	6.3 Analyse and evaluate the formulated detailed level design of the software/system	Be able to ▪ determine whether all the functional requirements have been considered by the design ▪ analyse whether the design has sufficiently considered all the identified execution conditions to accomplish the function of the program components ▪ use the adopted design method's principles and criteria to evaluate whether the design is a good design ▪ determine whether there is a need to re-engineer business processes in the design ▪ identify any incompatible aspects of the design due to the inconsistent or conflicting requirements

	6.4 Exhibit professional skills in the formulation of detailed level design	Be able to ▪ adapt standard design methodologies and principles for the detailed level design of the software/system to cater for the specific organization's environment ▪ produce the detailed level design in an efficient and effective manner ▪ follow the organisation's standards and guidelines where applicable ▪ obtain agreement among stakeholders
7. Assessment Criteria	The integrated outcome requirements of this UoCs are the abilities to formulate a detailed level software/system design which can: (i) ensure that functional and non-functional requirements are met; (ii) describe the functionality of each program components, its program logic and information flow as well as its dependency and relation with other components; and (iii) highlight the part of design involving business process re-engineering.	
Remark		