Media, Information and Communication Technologies
Sector Education and Training Authority

Accelerating quality skills towards an information savvy society

PROGRAMME ALIGNMENT – 115392

SO - Specific Outcomes

AC - Assessment Criteria

	Apply principles of creating computer software by developing a complete programme to meet given business specifications		115392		NQF LEVEL 5	12 CREDITS
1.	**SO'S**	**AC'S**	**MANUAL NAME**	**UNIT/CHAPTER**	**TOPIC**	**PAGE**
Interpret a given specification to plan a computer program solution. **S O 1**		**AC 1**	The plan proposes a description of the problem to be solved by the development of the computer program that is understandable by an end-user and meets the given specification.	1	Planning a program solution.	**10**
		AC 2	The plan integrate the research of problems in term of data and functions	1	Planning a program solution.	**12**
		AC 3	The plan includes an evaluation of the viability of developing a computer program to solve the problem identified and compares the costs of developing the program with the benefits to be obtained from the program.	1	Planning a program solution.	**15**
		AC 4	The plan concludes by choosing the best solution and documenting the program features that will contain the capabilities and constraints to meet the defined problem.	1	Planning a program solution.	**16**
2.	**SO'S**	**AC'S**	**MANUAL**	**UNIT/CHAPTER**	**TOPIC**	**PAGE**

	SO'S	AC'S	MANUAL	UNIT/CHAPTER	TOPIC	PAGE
Design a computer program to meet a business requirement. **S O 2**		AC 1	The design incorporates development of appropriate design documentation and is desk-checked.	2	Guidelines for designing computer programs.	**20**
		AC 2	The design of the program includes program structure components.	2	Guidelines for designing computer programs.	**20**
		AC 3	The design of the program includes program logical flow components.	2	Guidelines for designing computer programs.	**20**
		AC 4	The design of the program includes data structures and access method components.	2	Guidelines for designing computer programs.	**20**
3.	**SO'S**	**AC'S**	**MANUAL**	**UNIT/CHAPTER**	**TOPIC**	**PAGE**
Create a computer program that implements the design. **S O 3**		AC 1	The creation includes coding from design documents, to meet the design specifications	2	Guidelines for the creation of computer programs	**32**
		AC 2	Names created in the program describe the purpose of the items named	2	Guidelines for the creation of computer programs.	**32**
		AC 3	The creation includes conformance with the design documentation, and differences are documented with reasons for deviations	2	Guidelines for the creation of computer programs.	**32**
4.	**SO'S**	**AC'S**	**MANUAL**	**UNIT/CHAPTER**	**TOPIC**	**PAGE**
Test a computer program against the business requirements. **S O 4**		AC 1	The testing includes assessment of the need to develop a testing program to assist with stress testing	3	Developing a testing program	**59**
		AC 2	The testing includes the planning, developing and implementing a test strategy that is appropriate for the type of program being tested.	3	Developing a testing program	**60**
		AC 3	The testing includes the recording of test results that allow for the identification and validation of test outcomes.	3	Developing a testing program	**61**
5.	**SO'S**	**AC'S**	**MANUAL**	**UNIT/CHAPTER**	**TOPIC**	**PAGE**
Implement the program to meet business requirements. **S O 5**		AC 1	The implementation involves checking the program for compliance with user expectations and any other applicable factors	4	Feasibility	**69**
		AC 2	The implementation involves training of users to enable them to use the software to their	4	Training users on the new program	**70**

6.	SO'S	AC'S	MANUAL	UNIT/CHAPTER	TOPIC	PAGE
		AC 3	The implementation involves planning of installation of the program that minimises disruption to the user	4	Planning the installation of the program	**71**
Implement the program to meet business requirements. **S O 6**		**AC 1**	The documentation includes annotation of the program with a description of program purpose and design specifics.	5	Software documentation for technical users.	**76**
		AC 2	The documentation includes the layout of the program code including indentation and other acceptable industry standards	5	Software documentation for technical users.	**76**
		AC 3	The documentation includes full internal and external documentation, with a level of detail that enables other programmers to analyse the program	5	Programme documentation for technical users.	**78**
		AC 4	The documentation reflects the tested and implemented program, including changes made during testing of the program	5	Programme documentation for technical users.	**78**

Specific Outcomes (Practical Competency, Skills) (SO)

Implies the ability to apply acquired knowledge practically in the workplace to achieve a related task. An observation checklist relating to the set assessment criteria are used to assess the learner's achievement of the specific outcomes.

Assessment Criteria (AC)

The criteria against which the achievement of the specific outcomes of a unit standard are measured. Assessment criteria are normally set for specific outcomes only, with essential embedded knowledge implied in the assessment criteria.