

-SQA-SCOTTISH QUALIFICATIONS AUTHORITY

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NATIONAL CERTIFICATE MODULE DESCRIPTOR

-Module Number-	0081091	-Session-1988-89
-Superclass-	CB	
-Title-	INTRODUCTION TO COMPUTERS	
-DESCRIPTION-		
Purpose	This module is designed to introduce the student to the basic skills and knowledge required to use computer systems. It will also introduce the student to the use of information technology in various environments. It is suitable for students in a wide variety of vocational areas.	
Preferred Entry Level	No formal entry requirements.	
Learning Outcomes	The student should: 1. use a variety of programs; 2. use an alphanumeric keyboard in the context of computing; 3. know the various components which may be used in computer systems; 4. understand the use made of computers in various environments.	
Content/ Context	<u>Corresponding to Learning Outcomes 1-4:</u> 1. The student could be introduced to the practical aspects of working a computer system by using the system to run a wide range of different programs. At a later stage, application programs relating to the student's vocational area should be used to emphasise the application of computers in the workplace.	

2. In the context of micro-computing the keyboard should be used to initialise and close-down the system, with cursor control, upper and lower case characters, space-bar, etc. At an early stage a keyboard tutorial program could be used to develop the student's keyboard familiarity.
3. The component parts of a typical computer system should be specified as processor, Input/Output devices and backing store. The method of operation of Input/Output devices and backing store should be introduced and the correct handling of devices and storage media (where applicable) should be emphasised.
4. The student should investigate the uses of computers in several different environments, such as in: education, science/engineering, industry, government, commerce, public services. The student should run programs which illustrate these uses and which also demonstrate the advantages to be derived from computer usage.

Suggested
Learning and
Teaching
Approaches

The learning approach for this module will be student-centred throughout with only brief exposition by the tutor. Correct posture and knowledge of correct fingering should be encouraged. This module may be taken in conjunction with module 72102 Keyboarding I.

The student should gain sufficient practical experience to allow him/her to use a variety of computer systems. This could be achieved by giving the student the opportunity to use more than one computer system within the module.

The use of technical jargon for its own sake should be avoided. The student need only acquire sufficient technical vocabulary to allow him/her to follow instructions.

Close liaison within a course team should ensure that appropriate programs are used by an individual student. Where a student is not clearly identified with a specific occupation he/she may be exposed to a variety of vocationally based software (such as a word processor, a spreadsheet and a database) and various educational programs such as tutorial and problem solving.

Assessment
Procedures

Acceptable performance in the module will be satisfactory achievement of all the performance criteria specified for each Learning Outcome.

The following abbreviations are used below:

- LO Learning Outcome
IA Instrument of Assessment
PC Performance Criteria

LO1 USE A VARIETY OF PROGRAMS

PC The student:

- (a) checks that the computer system is ready for use;
- (b) follows procedures to load the program from the filing device;
- (c) successfully runs the program;
- (d) exits from the program;
- (e) closes down the system ready for the next user.

IA Practical Exercise

The student will be presented with a practical exercise to test the skills which are necessary to use a variety of programs.

The exercise may be completed on one or more different computer systems and should consist of 6 programs in total, including at least 1 from each of the undernoted groups:

- (a) the student's own vocational area;
- (b) learning aids.

Satisfactory achievement of the Learning Outcome will be demonstrated by the student achieving all 3 essential items (E) for all programs plus all 4 desirable items (D) for at least one program from the following checklist.

CHECKLIST

- | | | |
|----|-------------------------------------|---|
| 1. | Checks system is ready for use | E |
| 2. | Follows procedures to load program | E |
| 3. | Loads printer with stationery | D |
| 4. | Enable printer | D |
| 5. | Produce printed output from program | D |
| 6. | Remove printed output | D |
| 7. | Close down system | E |

LO2 USE AN ALPHANUMERIC KEYBOARD IN THE CONTEXT OF COMPUTING

PC The student, whilst using a program, demonstrates the following:

- (a) cursor movement;
- (b) use of shift key;
- (c) use of space bar;
- (d) use of return or enter key;
- (e) use of delete (or equivalent) key;
- (f) input of numerical data;
- (g) input of mixed upper/lower case alphanumeric data.

IA Practical Exercise

The student will be presented with a practical exercise to test the student's ability to use an alphanumeric keyboard in the context of computing.

Satisfactory achievement of the Learning Outcome will be based upon all performance criteria being met.

LO3 KNOW THE VARIOUS COMPONENTS WHICH MAY BE USED IN COMPUTER SYSTEMS.

PC The student:

- (a) identifies the main components of a system as input, output, processor and backing storage;
- (b) recognises the interconnection between these components;
- (c) recognises the devices which may perform the functions of these components.

IA 1 Graphical Completion Item

The student will be presented with a graphical completion item to test the recall of information relating to the components of a system and their interconnections.

The completion item will require the student to draw a labelled diagram showing the main components of a system and the interconnections between these components. This will be carried out without reference to text.

IA 2 Matching Items

The student will be presented with a list of matching items to test the recall of knowledge relating to devices which may perform the functions of components of a computer system.

The matching items will consist of a list of 6 devices and a list of 3 components of the system, ie input, output and backing storage. Two devices will match with each component.

Satisfactory achievement of the Learning Outcome will be demonstrated by the student producing a labelled diagram showing correct inter-connections and all items matched correctly.

LO4 UNDERSTAND THE USE MADE OF COMPUTERS IN VARIOUS ENVIRONMENTS

PC The student:

- (a) states the main users of computers;
- (b) explains the purposes of computers in each of these areas;
- (c) explains 2 reasons for using computers.

IA Assignment

The student will be presented with an assignment to test the knowledge relating to the uses made of computers in various environments.

The assignment will take the form of an A4 pro-forma with the headings of user, purposes and reasons, corresponding to the performance criteria. The student will investigate the use of computers in 3 of the following areas:

1. education
2. industry
3. science/engineering
4. government
5. commerce
6. public services.

Satisfactory achievement of the Learning Outcome will be demonstrated by the student producing a completed pro forma for 3 users with adequate explanations of the purposes and 2 reasons stated.