

-SQA-SCOTTISH QUALIFICATIONS AUTHORITY

**Hanover House
24 Douglas Street
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NATIONAL CERTIFICATE MODULE DESCRIPTOR

-Module Number- 0091090 -Session-1989-90

-Superclass- CA

-Title- USING A MICROCOMPUTER

-DESCRIPTION-

Purpose This module is designed to give students the basic skills required to operate a microcomputer.

It is especially suitable for students seeking an elementary hands-on experience of microcomputers. Successful completion of the module should allow the student to progress to 81091 Introduction to Computers.

Preferred Entry Level No formal entry requirements

Learning Outcomes The student should:

1. identify hardware and media used in microcomputer systems;
2. use devices for alphanumeric input and cursor control;
3. use a variety of programs.

Content/ Context Corresponding to Learning Outcomes 1-3

1. Location and main functions of the processor. Name and function of input, output and backing store devices used. Discussion of, and, if possible, use of microcomputer systems with different arrangements of processor/keyboard/disk drive/monitor, etc.
2. Short but varied exercises on alphanumeric input and editing. The use of a device other than the standard keyboard to control a screen pointer (e.g. mouse, trackerball, joystick, concept keyboard, photonic wand).

3. Initialisation and close down of system. Methods of loading and exiting program. Running simple programs which illustrate:
 - (a) the educational use of microcomputers (e.g. language and number work as well as keyboard and system trainers);
 - (b) the general vocational use of microcomputers (e.g. word processors, databases, graphics etc.);
 - (c) a range of user-interfaces (e.g. simple screen prompts, menus, commands, wimp);
 - (d) saving and loading data files, obtaining hard copy.

Suggested
Learning and
Teaching
Approaches

This is a practical module whose emphasis is on "hands-on" experience with the minimum of technical language. Tutors will need an initial input of exposition and demonstration followed by student practice until proficiency in operating the hardware and responding to screen prompts is achieved. The student should be encouraged to work independently with tutor help decreasing as competence and confidence increase.

The presentation of information to run programs, and the programs themselves, must be appropriate to the needs, interests and abilities of each student. Students who may have disabilities should be allowed to use alternative devices to the traditional keyboard, e.g., concept keyboard, photonic wand or sensory switch gear, etc. Care should be taken to position equipment in such a way that all students can operate it effectively.

Assessment
Procedures

Acceptable performance in the module will be satisfactory achievement of 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 IDENTIFY HARDWARE AND MEDIA USED IN MICROCOMPUTER SYSTEMS

PC The student correctly identifies:

- (a) keyboard;
- (b) alternative input device(s);
- (c) disk drive;
- (d) monitor;
- (e) printer;
- (f) disk.

IA Short Answer Questions

The student will be presented with 6 short answer questions (written or oral) to test the ability to identify microcomputer system hardware and media.

One question will cover each of the Performance Criteria (a) to (f).

Satisfactory achievement of the Learning Outcome will be based on all Performance Criteria being met. This will be demonstrated by the student correctly answering all 6 questions.

LO2 USE DEVICES FOR ALPHANUMERIC INPUT AND CURSOR CONTROL

PC The student, whilst using programs, demonstrates the following:

- (a) use of shift;
- (b) use of space;
- (c) use of return or enter;
- (d) use of delete (or equivalent);
- (e) input of numerical data;
- (f) input of mixed upper/lower case alphanumeric data;
- (g) cursor control for editing purposes;
- (h) use of an input device other than a standard keyboard for cursor control and input.

IA Practical Exercises

The student will be presented with 2 practical exercises to test the ability to use input devices for alphanumeric input and cursor control.

The first exercise will comprise a short passage of text or a short program which the student enters, proofs and edits. The student will then be required to make minor alterations under the guidance of the tutor.

The second exercise will involve the use of a program which requires the use of an input device to control a screen pointer.

Satisfactory achievement of the Learning Outcome will be based on all Performance Criteria being met. This will be demonstrated by the student correctly using the chosen input device to produce hard copy for each of the 2 exercises.

LO3 USE A VARIETY OF PROGRAMS

PC The student:

- (a) follows procedures to load programs;
- (b) successfully runs the programs;
- (c) exits the programs;

IA Practical Exercise

The student will be presented with 4 practical exercises to test the skills necessary to use a variety of programs.

The 4 programs should include at least 1 from each of the following groups:

- (a) learning aids;
- (b) simple general purpose programs.

Satisfactory achievement of the Learning Outcome will be based on all Performance Criteria being met. This will be demonstrated by the student achieving all 3 essential items (E) for all 4 programs plus all 3 desirable items (D) for at least 1 program from the following Checklist.

CHECKLIST

1. Follows procedures to load program E
2. Runs the program E
3. Saves file on disk D
4. Loads file from disk D
5. Produce printed output from program D
6. Exits program E

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