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was set up as a statutory body on 11 June 2001
by the Minister for Education and Science.
Under the Qualifications (Education & Training) Act, 1999,
FETAC now has responsibility for making awards
previously made by NCVA.**



Module Descriptor

Windows Programming

Level 6 C30149

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1	Title	Windows Programming
2	Code	C30149
3	Level	6
4	Value	2 credits
5	Purpose	<p>This module has been designed to give the student an understanding of the principles involved in event driven programming and the design of graphical user interfaces.</p> <p>This is a mandatory module on the Advanced Certificate in Networks and Software Systems at Level 6.</p>
6	Preferred Entry Level	Level 5 Certificate in or equivalent.
7	Special Requirements	The learner should have successfully completed the Computer Programming module (C20013) or equivalent.
8	General Aims	<p><i>This module aims to enable the learner to:</i></p> <p>8.1 acquire the skills necessary to be able to programme in a windows environment</p> <p>8.2 write programs using a 4GL development environment</p> <p>8.3 be familiar with the components used in developing user interfaces</p> <p>8.4 acquire skills necessary to design Human Computer Interfaces (HCI)</p> <p>8.5 appreciate the role of prototyping in interface development</p> <p>8.6 develop good programming practice</p> <p>8.7 write programs that communicate with other windows applications</p> <p>8.8 develop good work practices in the use and care of computing equipment.</p>

9 Units

Unit 1	Development Environment
Unit 2	Programming
Unit 3	Interacting with the Windows Environment

10 Specific Learning Outcomes

Unit 1 Development Environment

The learner should be able to:

- 10.1.1** execute the relevant environment from Windows
- 10.1.2** load/save programs using the environment
- 10.1.3** execute programs within the environment
- 10.1.4** compile programs
- 10.1.5** edit programs using the editor provided
- 10.1.6** use the programmers interface design tool
- 10.1.7** explain the following terms:
- *control, text box*
 - *list box*
 - *command button*
 - *check box*
 - *scroll bar*
 - *option box*
 - *file list box*
 - *drive list box*
 - *menu*
 - *form*
 - *grid control*
- 10.1.8** explain the properties associated with:
- *text box*
 - *list box*
 - *command button*
 - *check box*
 - *option box*
 - *file list box*
 - *drive list box*
 - *form*
 - *grid control*
- 10.1.9** create a program interface using a *text box* and execute the program

- 10.1.10 create a program interface using a command button and execute the program
- 10.1.11 create a program interface using a list box and execute the program
- 10.1.12 create a program interface using a file list box and execute the program
- 10.1.13 create a program interface using a drive *list box* and execute the program
- 10.1.14 design an interface which involves a number of different controls
- 10.1.15 use the menu design tool to construct a menu.

Unit 2 Programming

The learner should be able to:

- 10.2.1 explain the term: *event driven programming*
- 10.2.2 explain the difference between *event driven programming* and procedural programming
- 10.2.3 explain the events associated with the different controls covered in Unit 1 above
- 10.2.4 write programs which interact with controls, e.g.
 - write a program which copies text from one text box to another
 - write a program which inserts text from a text box into a list box
 - write a program which uses command buttons to control user actions
- 10.2.5 write programs which use the various programming constructs:
 - if .. end if
 - while ..
 - procedure
 - function
- 10.2.6 explain the meaning of the standard data types:
 - boolean
 - integer
 - real
 - character
 - string
 - date
 - time
- 10.2.7 explain the meaning of the structured type array
- 10.2.8 write programs which handle specific events associated with a given control

11 Assessment

	Summary	Portfolio of Coursework	60%
		Practical Examination	40%
11.1	Technique	Portfolio of Coursework	
	Mode	Centre-based with external moderation by FETAC.	
	Weighting	60%	
	Format	2 Programming Assignments	
		Assignment 1: Programming Controls	30%
	Details	The assignment should incorporate the programming controls specified in Units 1 and 2.	
		Assignment 2: Interacting with the Windows Environment	30%
	Details	The assignment should incorporate the programming techniques specified in Unit 3.	
11.2	Technique	Practical Examination	
	Mode	School-based with external moderation by FETAC.	
	Weighting	40%	
	Duration	3 hours	
	Format	The examination will be based on units 1 and 2 only.	
	Details	Section A	
		Three structured questions. All questions to be answered.	
		Section B	
		Two structured questions. One question to be answered.	
		All questions carry equal marks.	

12 Performance Criteria

12.1 Portfolio of Coursework

The performance criteria for each component of the portfolio are detailed in the accompanying Individual Candidate Marking Sheets.

12.2 Written Examination

The Assessor must devise an examination paper and outline marking sheet. These must be made available to the external Authenticator.

13 Grading

Pass	50 - 64%
Merit	65 - 79%
Distinction	80 - 100%

Individual Candidate Marking Sheet 1	Windows Programming C30149 Programming Assignment 1 Weighting 30%
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Candidate Name: _____ **PPSN.:** _____

School/Centre: _____ **Centre No:** _____

Performance Criteria	Maximum Mark	Candidate Mark
Program Documentation	20	
Application Interface	25	
Quality of Application	40	
Test Evaluation and report	15	
Total	100	
WEIGHED TOTAL (= TOTAL X 0.3)	30%	

Assessor's Signature: _____ **Date:** _____

External Authenticator's Signature: _____ **Date:** _____

Individual Candidate Marking Sheet 2	Windows Programming C30149 Programming Assignment 2 Weighting 30%
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Candidate Name: _____ **PPSN:** _____

Centre: _____ **Centre No:** _____

Performance Criteria	Maximum Mark	Candidate Mark
Program Documentation	20	
Application Interface	25	
Quality of Application	40	
Test Evaluation and report	15	
Total	100	
WEIGHED TOTAL (= TOTAL X 0.3)	30%	

Assessor's Signature: _____ **Date:** _____

External Authenticator's Signature: _____ **Date:** _____

Individual Candidate Marking Sheet 3	Windows Programming C30149 Practical Examination Weighting 40%
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Candidate Name: _____ PPSN: _____

School/Centre: _____ Centre No: _____

Performance Criteria	Maximum Mark	Candidate Mark
Section A All questions to be answered		
Question 1	25	
Question 2	25	
Question 3	25	
Section B One question to be answered		
Question (...)	25	
Total	100	
WEIGHED TOTAL (= TOTAL X 0.4)	40%	

Assessor's Signature: _____ Date: _____

External Authenticator's Signature: _____ Date: _____

FETAC Module Results Summary Sheet

Module: Windows Programming
Module Code: C30149

	Elements of Assessment Maximum Marks per element of assessment	Portfolio of Coursework		Written Examination 40%	% Marks 100%	Grade*
		Assignment 1 30%	Assignment 2 30%			
Candidate Name	Exam No.					

Signed: _____ *Date:* _____
Assessor: _____

- Grade***
D: 80 - 100%
M: 65 - 79%
P: 50 - 64%
U: 0 - 49%
W: candidates entered who did not present for assessment

This sheet is for teachers/Assessors to record the overall marks of individual candidates. It should be retained in the centre. The marks awarded should be transferred to the official FETAC Module Results Sheet issued to centres before the visit of the external Authenticator.