NEW SOUTH WALES TECHNICAL AND FURTHER EDUCATION COMMISSION
STUDENT ASSESSMENT GUIDE - MODULE

Module Name: Interfacing Applications Using C

Module No : 7763C

National Module Code : EB127

Module Purpose:

To provide the student with a working knowledge of the C language. This module is aimed at students, already skilled in structured program design techniques, with demonstrated competencies in microprocessor and digital electronics. The students will be required to construct, write and document small well structured programs to investigate the C language. In addition a project will be undertaken in C, with a small amount of assembler, to interface a microprocessor system to the external world.

Module Assessment:

The assessment for this module is recorded as a Class Mark.

All assessment events used to determine your result will be locally set and locally marked.

Your results will be reported as DISTINCTION, CREDIT, PASS or FAIL.

To receive a particular grade you must get at least the mark shown below:

Grade	Class mark
DISTINCTION	83%
CREDIT	70%
PASS	50%

All other cases FAIL.

(Grade Code 72)

Assessment Component	Assessment Event Name	Wgt %
CLASS MARK	THEORY TEST 1	20
	PRACTICAL TEST	20
	PROJECT	30
	THEORY TEST 2	30

Assessment Events - Additional Information

Event Name :THEORY TEST 1
Event type: Theory test
Timing: After the completion of Sections 1 to 3, as specified in the Student Assessment Information.
Type of items: Multiple choice and short answer questions, program correction.
Coverage: Sections 1 to 3 covering historical background and future directions for C, review of elementary C, more advanced C programming.
Duration: 30 minutes
Conditions: Theory/prac room. Test conditions. No aids allowed.

Event Name :PRACTICAL TEST

Event type: Practical test
Timing: After the completion of Sections 1 to 3, as specified in the Student Assessment Information.
Type of items: Design, coding, testing and debugging short programs involving arrays, pointers and structures.
Coverage: Sections 1 to 3 covering historical background and future directions for C, review of elementary C, more advanced C programming.
Duration: 45 minutes
Conditions: Electrical/Electronics Integrated Learning Centre.
One PC per student. Aids permitted.

Event Name :PROJECT
Event type: Project
Timing: Students will be given topic(s) after the completion of Section 2. Final presentation - after the completion of Sections 1 to 7, as specified in the Student Assessment Information.
Type of items:
* Design of a program to control an interface.
* Writing and debugging the program using C and assembler.

Coverage: Sections 2 to 7 covering review of elementary C, more advanced C programming, the compilation and linkage process, interfacing software to hardware, interfacing software to software, the programming project.
Duration: To be completed over several laboratory sessions.
The presentation of the completed project to the teacher during class time - 8-10 minutes per student.
Conditions:
* Students to be assessed individually on project related work
* Assessor may vary tasks between students to ensure authenticity of work
* Coding, testing and demonstration to be done in computer laboratory.

Event Name :THEORY TEST 2
Event type: Theory test
Timing: After the completion of Sections 1 to 7, as specified in the Student Assessment Information.
Type of items: Multiple choice, short answer questions and program correction.
Coverage: Sections 2 to 7 covering review of elementary C, more advanced C programming, the compilation and linkage process, interfacing software to hardware, interfacing software to software, the programming project.
Duration: 60 minutes
Conditions: Theory/prac room. Test conditions. No aids allowed.

Additional Assessment Information:

In addition to the assessment outlined above, your teacher may set other tasks, for example, review questions, practical exercises and quizzes. These activities will not count towards your final assessment marks, but they are a vital part of your learning process, and will provide you with feedback on your understanding of the topics in this module.

Summary of Content:

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Section 1: Historical background and future directions for C

Section 2: Review of elementary C

Section 3: More advanced C programming

Section 4: The compilation and linkage process

Section 5: Interfacing software to hardware

Section 6: Interfacing software to software

Section 7: The programming project

OCCUPATIONAL HEALTH AND SAFETY

The laws protecting the Health and Safety of people at work apply to students who attend TAFE Colleges, either part time or full time. These laws emphasise the need to take reasonable steps to eliminate or control risk at work (this includes a TAFE College). TAFE NSW has the responsibility for the control, and where possible, the elimination of health and safety risk at the college. You are encouraged to help in eliminating hazards by reporting to your teacher or other College staff, anything that you think may be a risk to you or other people.

Your teacher will encourage you to assist in hazard identification and elimination, and to devise control measures for any risks to yourself and other people that may arise during practical exercises. The OHS Act 2000 and OHS Regulation 2001 require that teachers and students take reasonable steps to control and monitor risk in the classroom, workshop or workplace.

Pre-requisites Information :

PREREQUISITES are subjects which you must have successfully completed before you are allowed to enrol in this subject. Most subjects do not have prerequisites and you may enrol in them without having done any other subjects.

Prerequisites of this module are :
(only one module group required)

6032L Electrical Control (C) Programming
7761J Microprocessor System Assembly Lang Prog

More About Assessment:

For information about assessment in TAFE please see "Every Student's Guide to Assessment in TAFE NSW" which is available on the TAFE Internet site at: http://www.tafensw.edu.au/students/guide/assessment_guide.htm.