



**NATIONAL BOARD FOR TECHNICAL  
EDUCATION (NBTE)**

**COURSE MATERIAL**

**FOR**

**Course Code & Title: OTM 113 INFORMATION  
& COMMUNICATION TECHNOLOGY**

**Programme: NATIONAL DIPLOMA IN  
COMPUTER SCIENCE**

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# **COURSE STUDY GUIDE**

## **i. Course Information**

**Course Code:** OTM 113

**Course Title:** Information & Communication Technology

**Credit Units:** 3 Credit Units

**Year of Study:** One

**Semester:** First

## **ii. Course Introduction and Description**

This course is titled Information & Communication Technology (OTM 113) and is designed to introduce the student to the concept of computer programming and features of a good computer program. On completion of this course, you should be able to explain the features of a good program and concept of Algorithms and flowcharting. You will also learn the principles of designing algorithms for common programming problem. General modular program design principles and procedure in solving programming problems were also discussed in details. The course further explains the various levels of programming language and concept of debugging and maintaining program. And finally, good programming practices and concept of object-oriented programming was explained.

## **iii. Course Prerequisites**

To be qualified for this course, you are required to have the following:

1. 5 credits in “O” level credits including Physics, English and Mathematics
2. Satisfactory level of English proficiency
3. Basic Computer Operations proficiency

## **iv. Course Textbook(S)**

Aronu D. I. (1998), “Computer operation and application”, Ola Jamon Prints and Publishers, Kaduna.

Aronu, D. I., (2005), “Information Systems Techniques”, Ola Jamon Printer and Publishers, Kaduna.

Clifton, H. D., (2012), “Business Data Systems”, (Prentice Hall International Inc.), London.

Croft, G. M., (1993), “Computer Studies: A Practical Approach”, Macmillan, India Ltd, Bangalore.

John M. N., (2007), “Project Management for Business and Technology”, Prentice Hall of India Private Ltd., New Delhi.

Simeon Ola Fatunal, (1993), “Fundamentals of Fortran”, Ada + Jane Press Nigeria Ltd, Benin City, Nigeria.

Watne, Turney, (1984), “Auditing EDP System”, Prentice Hall International, London.

## **v. Course Objectives and Outcomes**


On completion of this course, you should be able to:

- 1.0 List and explain features of a good program.
- 2.0 Define the concept of Algorithms and flowcharting.
- 3.0 Explain the principles of designing algorithms for common programming problem.
- 4.0 Explain general modular program design principles.
- 5.0 List the procedure in solving programming problems.
- 6.0 Explain the various levels of programming language.
- 7.0 Explain the concept of debugging and maintaining program.
- 8.0 Explain good programming practices.
- 9.0 Explain the concept of object-oriented programming

## **vi. Activities to meet Course Objectives**

The Course Material is written in a simple, clear and concise manner that will assist and enable you to understand this course very well. Relevant sites and standard references have been provided for you. There is going to be a lot of chatting and online interaction in this class through WhatsApp, Facebook and Instagram. There will be individual assignments and group assignments. All assignments are due at the times slated. No late assignment will be entertained or accepted from you and hence, be very serious with your study. Completion and timely submission of assignments will also serve as part of your assessment. You are expected to read this course material thoroughly and understand very well. You will also be exposed to practical classes within a specific time during the semester. You are also expected to have software applications on your mobile phones like WhatsApp, Facebook and Instagram, a working email address and a phone number so that you can chats, interact and share ideas with each other. Please do not hesitate to contact your teacher through email, phone numbers and social media platforms. We will like you to succeed in this class and also in your future Endeavour. Thank you and God bless.

## **vii. Time (To Complete Syllabus/Course)**

 Duration of tutoring is 13 Weeks and you shall be expected to put in a minimum of 4hour study time weekly.

### **viii. Grading Criteria and Scale**

Grades will be based on the following:

Individual Assignments/Test (CA 1, 2 etc.)	20%
Group Assignment	10%
Practical / Projects (GCA 1, 2 etc.)	10%
Semester Examination	60%
Total	100%

### **ix. Grading Scale**

The unified grading system to be applied in scoring all course work, examinations, project, etc. is as stated on table below:

Marked Range	Letter Grade	Weight
Above 75	A	4.0
70 – 74	AB	3.5
65 – 69	B	3.25
60 – 64	BC	3.0
55 – 59	C	2.75
50 – 54	CD	2.5
45 – 49	D	2.25
40 – 44	E	2.0
Below 40	F	0.00

### **x. Feedback**

#### **Courseware based:**

1. Self-assessment questions

#### **Tutor based:**

1. Discussion Forum tutor input
2. Graded Continuous assessments

***Please Contact NBTE for the Complete Courseware***