



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

COURSE MATERIAL

FOR

**Course Code & Title: COM113 INTRODUCTION
TO PROGRAMMING**

**Programme: NATIONAL DIPLOMA IN
COMPUTER SCIENCE**

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COURSE STUDY GUIDE

i. Course Information

Course Code: COM 113

Course Title: Introduction to Programming

Credit Units: 3 Credit Units

Year of Study: One

Semester: First

ii. Course Introduction and Description

This course is titled Introduction to Programming (COM113) 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%
Practical / Projects (GCA 1, 2 etc.)	10%
Discussions/Quizzes/Out of class engagements 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

Student based:

1. Online Program Assessment (Administration, Learning Resource, Deployment, and Assessment)

Please Contact NBTE for the Complete Courseware