

COURSE OUTLINE FOR NID IN COMPUTER HARDWARE ENGINEERING

The National Innovative Diploma (NID) Programme in Computer Hardware Engineering is designed to produce skilled hardware technicians who should be able to solve a wide range of problems by systematically diagnosing and identifying the problem.

Entry Requirements

The entry requirements into NID in Computer Hardware Engineering programme include any of the following:

- 1) Five (5) credit level passes in GCE "O" level or Senior Secondary School Certificate (SSCE) at not more than two sittings. The five subjects must include **Physics, Chemistry, Mathematics, English** and any other subject.
- 2) National Vocational Certificate (NVC) or National Technical Certificate (NTC) in Computer Science from any recognized Institution.

Curriculum

The curriculum of NID in Computer Hardware Engineering Programme consists of four (4) main components. These are:-

- 1) General Courses
- 2) Foundation Courses
- 3) Professional/Core Courses
- 4) Supervised Industrial attachment

Curriculum Structure

The structure of the programme is made of four (4) semesters of classroom, laboratory, workshop and practical activities in the institution – and at least 3 months mandatory supervised industrial attachment.

Each semester shall have 18 weeks duration made up of:

- 16 weeks of contact learning and practical session
- 2 weeks for registration and examination.

Curriculum Table for NID in Computer Hardware Engineering

1st Semester

Course Code	Course Title
CSK501	Basis of Communication
MAT112	Logic and Linear Algebra
CHT101	Basic Electricity
CHT111	Operating System
CHT112	Computer Workshop and Practice I
CHT113	Basic Electronics

2nd Semester

Course Code	Course Title
CSK502	Communication Skills II
MAT232	Calculus
EDP111	Introduction to Entrepreneurship
CHT121	Digital Electronics
CHT122	System Architecture I
CHT123	Introduction to Micro Computer and Application Packages

3rd Semester

Course Code	Course Title
CHT211	Pc Assembling and Upgrading
CHT212	System Architecture II
CHT213	Computer Workshop Practice II
CHT214	Basic Networking

4th Semester

Course Code	Course Title
CHT225	Consumer Electronics
CHT221	Troubleshooting and Repairs
CHT222	Software Installation and Upgrading
CHT223	Practice of Entrepreneurship
CHT224	Project

COURSE OUTLINE FOR NID IN NETWORKING & SYSTEM SECURITY

The National Innovative Diploma (NID) Programme in Networking and System Security is designed to produce skilled networkers who should be able to design, install, maintain and manage local, wide area and wireless network environment.

Entry Requirements

The entry requirements into NID in Networking and System Security programme include any of the following:

- 1) Five (5) credit level passes in GCE "O" level or Senior Secondary School Certificate (SSCE) at not more than two sittings. The five subjects must include **Physics, Chemistry, Mathematics, English** and any other subject.
- 2) National Vocational Certificate (NVC, Final) in Computer Science from any recognized and approved Vocational Enterprise Institution.

Curriculum

The curriculum of NID in Networking and System Security Programme consists of four (4) main components. These are:-

- 3) General Courses
- 4) Foundation Courses
- 5) Professional/Core Courses
- 6) Supervised Industrial attachment

Curriculum Structure

The structure of the programme is made of four (4) semesters of classroom, laboratory, workshop and practical activities in the institution – and at least 3 months mandatory supervised industrial attachment.

Each semester shall have 18 weeks duration made up of:

- 16 weeks of contact learning and practical session

- 2 weeks for registration and examination.

Curriculum Table for NID in Networking and System Security

1st Semester

Course Code	Course Title
	Communication Skill I
	Mathematics
NSS111	Basic Computer Skills
NSS112	Computer Application Packages
NSS113	Introduction to Networking
NSS114	Network Operation Systems

2nd Semester

Course Code	Course Title
	Communication Skill II
	Citizenship Education
	Mathematics
NSS121	Network Design Topology and Network Protocols
NSS122	Network Cabling
NSS123	Introduction to Networking Devices

3rd Semester

Course Code	Course Title
	Entrepreneurship
	Technical Report Writing
NSS231	Introduction to WAN Technology
NSS232	Network Security
NSS233	Power and Network Management
NSS234	Data Security

4th Semester

Course Code	Course Title
NSS241	Web Server Fundamentals
NSS242	Fundamentals of Wireless LANs
NSS243	Project Management
NSS244	Final Year Project

COURSE OUTLINE FOR NID IN COMPUTER SOFTWARE ENGINEERING

The National Innovation Diploma (NID) programme in Software Engineering is designed to produce skilled software technicians who should be able to solve a wide range of problems by the systematic development and evaluation of large, high quality software systems.

Entry Requirements

The entry requirements into NID in Computer Software Engineering programme include any of the following:

- 1) Five (5) credit level passes in GCE "O" level or Senior Secondary School Certificate (SSCE) at not more than two sittings. The five subjects must include Mathematics, Physics, Chemistry, English Language and any other subject.
- 2) National Vocational Certificate (NVC, Final) in Computer Studies from an approved Vocational Enterprise Institution (VEI).

Curriculum

The curriculum of NID in Computer Software Engineering programme consists of four (4) main components. These are: -

- 1) General Courses
- 2) Foundation Courses
- 3) Professional/Core Courses
- 4) Supervised Industrial Attachment.

Curriculum Structure

The structure of the programme is made up of four (4) semesters of classroom, laboratory, workshop and practical activities in the institution – and a period of at least 3 months of supervised industrial attachment.

Each semester shall have 17 weeks duration made up of:

- 15 contact weeks of learning and practical applications
- 2 weeks for examination and registration.

Curriculum Table for NID in Computer Software Engineering

1st Semester

Course Code	Course Title
CSE101	Computers Systems
CSE111	Introduction to Programming
CSE121	Basic Digital Systems
CSE131	Internet and World Wide Web
CSE141	Computer Application Packages I
CSE151	File Organization
MTH101	Logic and Linear Algebra
STT101	Introduction to Statistics
GNS101	English Language and Communication I

2nd Semester

Course Code	Course Title
CSE102	Data Structure and Algorithm
CSE112	Pc Upgrade and Maintenance
CSE122	Computer System Troubleshooting
CSE132	Computer and Society
CSE142	Basic Hardware Maintenance
CSE152	System Analysis and Design
CSE162	Students Industrial Attachment
MTH102	Calculus
GNS111	English Language and Communication

3rd Semester

Course Code	Course Title
CSE201	Programming Concepts
CSE211	Computer Programming Using VB.NET
CSE221	System Programming Concepts (C, C++)
CSE231	Computer Application Packages II
CSE241	Structured Query Language I
CSE251	Relational Data Base Management Systems (RDBMS) I
ENT201	Entrepreneurship Development

4th Semester

Course Code	Course Title
CSE202	Scientific Programming Language Using Object Oriented JAVA
CSE212	Management Information System
CSE222	Structured Query Language II
CSE232	Relational Data Base Management Systems (RDBMS) II
CSE242	Software Project Management
CSE252	Project