



# **GATEWAY INDUSTRIAL & PETRO-GAS INSTITUTE {GIPI}**

**ADDRESS:**

Oni, Ogun Waterside LGA  
P.M.B. 2123, Ijebu-Ode, Ogun State, Nigeria  
E-mail: [info@gipi.edu.ng](mailto:info@gipi.edu.ng)  
Website: [www.gipi.edu.ng](http://www.gipi.edu.ng)

**BROCHURE**

## 1.0 ESTABLISHMENT HISTORY

The Gateway Industrial & Petro-Gas Institute (GIPI) was established by Ogun State Government vide OGHA Act No. 9 of 2008 to provide the much needed skills required in the industries, both in Nigeria and Overseas. The Institute was commissioned 25<sup>th</sup> January, 2008 while the Technical Skills Development Programme took off on the 25<sup>th</sup> May, 2008. GIPI which is the second specialized skill training Institute after the Petroleum Training Institute, Effurun for the Oil and Gas Industries in Nigeria is presently located at Oni near Iwopin, in Ogun Waterside LGA of Ogun State. It is close to the Oni Beach, about 10km from Iwopin, the coastal paper mill town and a few nautical miles from Lagos. Oni provides a serene atmosphere, conducive to learning in a safe environment for staff. Hence, GIPI adopted a suitable approach to fulfill its mandate of running:

1. NBTE accredited National Innovation Diploma (NID) program
2. Professional Diploma/Certificate
3. National Vocational Certificate by NBTE
4. Skill re-development for Industries.

The Institute was envisioned to provide efficient and effective training to young people yearning to partake in and contribute to the development of the oil & gas and other Industries at the middle level cadre. Hence, the Institutes mounted programmes in the areas of technical competency to show its commitment to the local content initiatives of the Federal Government of Nigeria in capacity building. The Institute, thus, commenced running of courses in the School of Technical Skills Development which is tailored towards the certification of its trainees in the various skills, in conjunction with professional certifying bodies, such as Nigerian Institute of Welding (NIW) which is a member of the International Institute of Welding (IIW). Others are Institute of Safety Professionals of Nigeria (ISON), Nigerian Maritime Administration and Safety Agency (NIMASA), Emergency Crisis Disaster Management Institute (ECDMI) and National Board for Technical Education (NBTE).

The Institute is presently occupying a portion of a 100Ha piece of land in a serene environment conducive for academic activities, with hostel accommodation for its students/trainees.

Visit [www.gipi.edu.ng](http://www.gipi.edu.ng) for details.

The Institute is presently running courses in **Welding & Fabrication Technology, Plumbing, Pipefitting and Gas Installation Technology, Instrumentation and Automation Technology, Lifting Equipment Technology** among others. The school of Technical Skills Development is still expanding to accommodate more courses which will be of relevance to the economy of Nigeria.

Programmes are designed for students/trainees, who upon graduation are ready to fit into the Industrial setting thus, drastically reducing the training budgets of the various Industries that engage their services. The budding entrepreneurship in them is also encouraged during their training to make them employers of labour.

The Institute has also established the School of Marine Studies where courses like Underwater Diving, Marine Engineering Technology, Inland Water Navigation, Survival Swimming, etc are being offered to generate the required manpower that will make the Nigerian Waterways safer, fill a gap in marine trade and improve water transportation.

## **2.0 CONTACT US**

### **Gateway Industrial & Petro-Gas Institute**

Oni, Ogun Waterside LGA

P.M.B. 2123, Ijebu-Ode

Ogun State, Nigeria.

Tel: 08036760079, 08034983997, 08138368707

E-mail: [info@gipi.edu.ng](mailto:info@gipi.edu.ng)

Website: [www.gipi.edu.ng](http://www.gipi.edu.ng)

## **3.0 INSTITUTE'S PHILOSOPHY**

The philosophy of Gateway Industrial & Petro-Gas Institute (GIPI) is reflected in our motto "Skills for Development". The Institute is committed to aiding the individual develop marketable Skills through quality training at affordable cost. We are also committed to making the industry more productive by conducting training to meet specific industrial objectives.

GIPI strives to develop new and better training methods and materials for courses presently offered by the Institute, and research into other manpower deficient sectors of the economy with a view to balancing the supply/demand equation.

GIPI strongly opposes discrimination against any group or individual on the basis of colour, sex, age, race, creed, ethnic background or social status. Thus, the institute's vision and mission are.

### **3.1 Our Vision**

To be known as an Outstanding Quality Human Resources Development Centre in the Training of manpower for the Construction process and Oil & Gas Industries.

### **3.2 Our Mission**

To be an undisputed leading institute that turns out best qualified and certified manpower to meet the challenges of the Oil & Gas and other industries.

## **4.0 OBJECTIVES**

We are set up to achieve the following key goals and objectives.

- Attain the institute's benchmark mission of developing knowledge and technical competence".
- Enhance the employability of graduates of the various technical skill courses by providing them with high quality and industry driven training to meet and exceed the needs of the Oil & Gas, construction and process industries.
- Demonstrate or showcase the promotion of the private/public partnership resolve of this government, by improving professionalism in the various technical fields.

## **5.0 LOCATION AND FACILITIES**

Ogun State is in the South-western Zone of Nigeria with a total land area of 16,409.26km. It borders Lagos State and Atlantic Ocean to the South, Oyo and Osun States to the North, Ondo State to the East and Republic of Benin to the West.

The State is made up of the Egbas, the Ijebus, the Remos, the Yewas, the Aworis and the Eguns. The language of the majority of the people of Ogun State is Yoruba which is however broken into various dialects. Ogun State has a rich historical heritage and trainees can visit the Olumo Rock, the BilikisuSungbo Shrine, the Iwopin and Ebute-Oni Tourist Beaches, the Yemoji Tourist Centre, Suna Cultural hall. The State can also boast of dozens of other potential tourist centres that have been identified.

Ogun State is regarded as the Gateway to most states in Nigeria and West Africa, with fast and convenient connections by road, rail and water.

GIPI is situated in Ogun Waterside, which is South-East of Ijebu-Ode. Our location affords trainees/students the benefit of affordable accommodation in the surrounding area and the Institute is only a few minutes from the Ebute-Oni and Iwopin Tourist Beaches which provide a serene environment, suitable for learning.

GIPI can boast of the following facilities such as standard classrooms, Library, welding workshops and Gas welding stations for hands on training. Health Safety and Environment laboratory, plumbing and pipefitting workshop, Computer laboratory which provide training in various engineering design courses and the use of computer applications, staff quarters, trainee hostels, medical Centre, field for sporting activities, 3 heavy duty generators for regular power supply, JAMB CBT Centre, etc. Future plans for the Institutes include a world-class Swimming and diving facilities, modern administrative building, sports arena, good road network and expanded library. Car parks are provided at strategic areas within the campus. The area currently developed is a small portion of the entire land area, thus, there is ample room for future expansion and growth.

All of Gateway Industrial and Petro-Gas Institute's facilities are on one site; trainees are thus saved the inconvenience of shuttling between campuses that students face at many other institutions.

## **6.0 ADMISSIONS DEPARTMENT**

### **6.1 Applying for Training**

1. Request for an application form
2. Complete and submit the application form
3. Get your offer of admission letter

The GIPI Admission Department handles all enquiries regarding courses, entry requirements and application procedures, Applications are processed by the department and staff will be happy to answer any questions regarding the application process.

### **6.2 Admissions office**

#### **Gateway Industrial & petro-Gas Institute**

Oni, Ogun State

Tel: 08034983997, 08034867856

info@gipi.edu.ng

[www.gipi.edu.ng](http://www.gipi.edu.ng)

## **7.0 TRAINING METHODS**

Most of the lecturers/Instructors at GIPI are experienced professionals. The training methods are therefore aimed at helping trainees to acquire the technical skills required to meet and exceed the needs of the oil & gas and other Industries.

Our objectives are for the trainees to succeed in all aspects of their programmes through skill assessment tests and attitude evaluation. The following are the teaching methods employed in GIPI.

Lecturers guide trainees through their courses explaining the key concepts of each topic. Theory is 30% of the total training. Instructors guide the students/trainees in Practical Demonstration in the workshops and laboratories i.e. model proper technique. Practical is 70% of the total training.

Assessment is commonly through practical and written examinations to ensure that trainees have mastered key concepts and skills.

Course and Practical materials: The course materials are carefully chosen to give trainees a complete understanding of each topic. Quality practice materials are available for training exercise for the various courses offered by the institute. Most of the courses are tailored in line with the curricular of relevant professional bodies.

## **8.0 TRAINEE/STUDENT WELFARE**

- The Trainee/Students Affairs Officer provides a range of services and activities for the benefit of our trainees/Students.
- The Institute Clinic provides trainees/Students with advice on health matters in addition to general medical services.
- The trainee departmental representatives play an active role in presenting the views of trainees/Students to the Institute's management on behalf of other trainees.
- Trainees/Students are encouraged to organize social activities on a regular basis within the Institute but no Cultism.
- The Institute provides trainees/Students with well laid down structure for filing complaint and grievances through their representatives.
- Trainees are encouraged to exercise their religious obligations using the available religious within the campus.

## 9.0 THE GIPI PLEDGE

As I \_\_\_\_\_ accept the GIPI challenge I become committed to pursuing academic/professional excellence.

As I Endeavour to pursue this quest for personal and professional goals, I will pay my tuition and school examination fees promptly before resumption and seek **for professional** certificate **at my own expense**.

I will not participate in any activity or dialogue which Impugns the character, taints the personality or defames the reputation associated with me or this Institute of Skills Acquisition.

My overall goals are to grow, contribute and build.

This is my pledge that I present without duress or reservation.

As a GIPI Trainee, I stand on my honor and integrity: I promise to live according to the highest standards, moral character and social responsibility associated with GIPI, its Faculty, Administrators, Alumni and Students Body.

I will contribute only to those activities associated with the growth, development and furthering of mankind: the exploration of which is life.

I make this solemn commitment to myself and the Institute, So help me God!

Name: \_\_\_\_\_

School: \_\_\_\_\_

Department: \_\_\_\_\_

PEN: \_\_\_\_\_

Signature: \_\_\_\_\_

## 10.0 RULES AND REGULATIONS FOR TRAINEES/STUDENTS

The Institute is determined to provide the much needed training programmes to its trainees, while expecting the necessary best conducts and practices from them; to be responsible citizens, Consequent upon the above, Trainees/Students are expected to say NO to:

- Unlawful possession of Dangerous Weapons/Fire arms
- Rape
- Assault
- Stealing/Robbery
- Unlawful Assembly
- Damage of property/vandalization
- Arson
- Forgery
- Impersonation
- Fighting
- Burglary
- Threat to Life
- Extortion of Money
- Membership of Secret Cult/Unapproved Club/Society/Association
- Harassment of Fellow Trainees/Staff
- Drunkenness
- Using Religion to Disrupt Activities on Campus
- Possession of hard Drugs
- Insubordination/Refusal to Obey Lawful Instructions
- Illegal Possession of Institute Stationary/Property
- Seizure and Driving of the Institute Vehicle/Reckless Driving on Campus
- Possession of Charms
- Playing Music to Disturb Academic/Activities.
- Using Phone /Headphone/Listening to music/Making Noise during Lectures
- Hawking in the Classrooms
- Pilfering/Stealing from Workshop/Library/Laboratory
- Bringing Babies to the Classroom during Lectures.

*All the above mentioned offences and other vices attract serious punitive measures. therefore, you are expected to maintain orderliness, due process and follow conflict resolution procedures at any time.*

*Thanks and God bless you.*

## 11.0 ACCOMMODATION

We recognize the importance of assisting trainees to secure suitable accommodation facilities within and outside the Institute's campus. Hostel accommodation is available to all trainees/students and visitors.

## 12.0 GRADING SYSTEM

The Grading System for the Institute is:

| S/N | MARK (%) | LETTER-GRADE | GRADE-POINT   |
|-----|----------|--------------|---------------|
| 1   | 70 – 100 | A            | 5 – Excellent |
| 2   | 60 – 69  | B            | 4 – Very Good |
| 3   | 50 – 59  | C            | 3 – Good      |
| 4   | 40 – 49  | D            | 2 – Average   |
| 5   | 35 – 39  | E            | 1 – Fair      |
| 6   | 0 – 34   | F            | 0 - Poor      |

### Classification:

|                |   |                           |
|----------------|---|---------------------------|
| 4.50 and above | - | Distinction               |
| 3.50 – 4.49    | - | Upper Credit              |
| 2.50 – 3.49    | - | Lower Credit              |
| 2.00 – 2.49    | - | Pass                      |
| Less than 2.00 | - | Certificate of Attendance |

### Scoring pattern:

|            |   |   |
|------------|---|---|
| Practical  | - | 70%                                     |
| Knowledge  | - | 30%                                     |
| Attendance | - | 70% qualifies trainees from examination |



## **PROGRAM OF STUDY - 1**

### **NATIONAL INNOVATION DIPLOMA**

#### **List of Departments/Courses**

1. Welding & Fabrication Technology
2. Computer Hardware Engineering Technology
3. Networking & System Security

## **DEPARTMENT OF WELDING & FABRICATION TECHNOLOGY**

### **Introduction/Goal:**

The programme is intended to produce Innovative Technicians in Welding and Fabrication for Innovation Enterprises, Self-Employment, Private and Public Sectors of Nigerian Economy.

### **Course Objectives:**

A product of NID IN WELDING AND FABRICATION ENGINEERING should be able to:

- i. Carry out welding and fabrication operations.
- ii. Develop the ability to communicate their knowledge of techniques, processes and materials by developing their graphical skills including freehand sketching and measured drawing.
- iii. Develop practical bench based skills to manipulate a range of common metals directed to the realization of ideas and the production of artefacts.
- iv. Provide experience in the use of some common machine tools.
- v. Establish a capacity to read and interpret formal working drawings and diagrammatic illustrations.
- vi. Acquire a body of knowledge to inform practical work and give a broad base of understanding of welding and metalworking.
- vii. Nurture a safe approach to practical work with materials using hand and machine tools.
- viii. Promote a capacity to solve specified technical design problems
- ix. Prepare appropriate engineering report.
- x. Apply management principles in organizing supervisory groups and in the arrangement of sequence of activities.
- xi. Acquire and apply basic entrepreneur skills.
- xii. Apply adequate Information Technology (IT) skills.

**Mode of Study:** Full-time

**Duration:** 4 Semester

### **Entry Requirements:**

Minimum of Five credits including English, mathematics, physics and any other two science subject at SSCE level or its equivalent NTC/TTC/C&G/NABTEB. A minimum of 100 score in UTME is also required.

## COURSE CONTENTS

### NID 1 FIRST SEMESTER

| COURSE CODE | COURSE TITLE   | L         | T        | P         | CU        | CH        |
|-------------|--|-----------|----------|-----------|-----------|-----------|
| GNS 101     | USE OF ENGLISH                                       | 2         | -        | -         | 2         | 2         |
| END 101     | ENTREPRENEURSHIP DEVELOPMENT                         | 2         | -        | -         | 2         | 2         |
| MTH 101     | ALGEBRA AND ELEMENTARY TRIGONOMETRY                  | 2         | 2        | -         | 3         | 4         |
| WFC 101     | TECHNICAL DRAWING                                    | 2         | -        | 3         | 3         | 5         |
| COM 101     | INTRODUCTION TO COMPUTING                            | 2         | -        | 2         | 3         | 4         |
| MEC 101     | MECHANICAL ENGINEERING SCIENCE                       | 2         | -        | 2         | 3         | 4         |
| EEC 101     | INTRODUCTION TO ELECTRICAL MACHINES AND INSTALLATION | 2         | -        | 3         | 3         | 5         |
| WFC 103     | BASIC WORKSHOP TECHNOLOGY & PRACTICE                 | 1         | -        | 6         | 3         | 7         |
|             | <b>TOTAL</b>   | <b>15</b> | <b>2</b> | <b>16</b> | <b>22</b> | <b>33</b> |
|             |  |           |          |           |           |           |
|             | <b>SECOND SEMESTER</b>                               |           |          |           |           |           |
| COURSE CODE | COURSE TITLE   | L         | T        | P         | CU        | CH        |
| WFC 102     | INNOVATION AND ACQUISITION OF TECHNOLOGY             | 2         | -        | -         | 2         | 2         |
| MTH 102     | CALCULUS   | 2         | 2        | -         | 2         | 4         |
| WFC 104     | ENGINEERING MATERIALS                                | 1         | -        | 2         | 2         | 3         |
| WFC 106     | WELDING METALLURGY                                   | 1         | -        | 2         | 2         | 3         |
| WFC 108     | WELD AND METAL CORROSION                             | 2         | -        | 2         | 3         | 4         |
| WFC 110     | BASIC ELEMENTS OF WELDING AND FABRICATION DESIGN     | 2         | -        | 2         | 3         | 4         |
| WFC 112     | WELDING TECHNOLOGY AND PRACTICE                      | 2         | -        | 4         | 3         | 6         |
| WFC 114     | FABRICATION TECHNOLOGY AND PRACTICE                  | 2         | -        | 4         | 3         | 6         |
|             | <b>TOTAL</b>   | <b>16</b> | <b>2</b> | <b>12</b> | <b>22</b> | <b>30</b> |
|             |  |           |          |           |           |           |
|             | <b>THIRD SEMESTER</b>                                |           |          |           |           |           |
| GNS 201     | COMMUNICATION SKILLS                                 | 2         | -        | -         | 2         | 2         |
| CAD 201     | COMPUTER AIDED DESIGN AND DRAFTING(CADD)             | -         | -        | 3         | 3         | 3         |
| WFC 201     | ENGINEERING MEASUREMENT                              | 2         | -        | -         | 2         | 2         |
| WFC 203     | UNDERWATER WELDING & CUTTING                         | 2         | -        | 3         | 3         | 5         |
| WFC 205     | PLASTIC WELDING TECHNOLOGY                           | 2         | -        | 3         | 3         | 5         |
| WFC 207     | MACHINE TOOL & FORGING                               | 2         | -        | 3         | 3         | 5         |
| WFC 209     | FOUNDRY TECHNOLOGY & PRACTICE                        | 2         | -        | 3         | 3         | 5         |
| WFC 211     | STRUCTURAL STEELWORK                                 | -         | -        | 5         | 3         | 5         |
|             | <b>TOTAL</b>   | <b>12</b> | <b>-</b> | <b>20</b> | <b>22</b> | <b>32</b> |
|             |  |           |          |           |           |           |
|             | <b>FOURTH SEMESTER</b>                               |           |          |           |           |           |
| WFC 202     | TECHNICAL REPORT WRITING AND PRESENTATION            | 2         | -        | -         | 2         | 2         |
| WFC 204     | DEVELOPMENT AND ASSEMBLY DRAWING                     | -         | -        | 3         | 3         | 3         |
| WFC 206     | TESTING AND QUALITY CONTROL OF WELDS                 | 1         | -        | 3         | 3         | 4         |
| WFC 208     | ADVANCED WELDING PROCESSES                           | 2         | -        | 3         | 3         | 5         |
| WFC 210     | ADVANCED FABRICATION PROCESSES                       | -         | -        | 5         | 3         | 5         |
| WFC 212     | WELDING ECONOMICS & MANAGEMENT                       | 2         | -        | -         | 2         | 2         |
| WFC 214     | HEALTH, SAFETY & ENVIRONMENT                         | 2         | -        | -         | 2         | 2         |
| WFC 200     | FINAL YEAR PROJECT                                   | -         | -        | -         | 4         | -         |
|             | <b>TOTAL</b>   | <b>9</b>  | <b>-</b> | <b>14</b> | <b>22</b> | <b>23</b> |

## **DEPARTMENT OF COMPUTER HARDWARE ENGINEERING TECHNOLOGY**

### **Introduction/Goal:**

To impart the necessary skills leading to the acquisition of skilled, enterprising and self-reliant personnel in Computer Hardware Engineering Technology.

### **Course Objectives:**

A product of National Innovation Diploma programme in Computer Hardware Engineering Technology should be able to:

- i. Operate and maintain basic Operating Systems (DOS & Windows}
- ii. Understand the computer environment and acquire the skills needed to identify and optimize memory and computer configuration.
- iii. Start and manage computer-based businesses.
- iv. Carry out routine (preventive) maintenance of Computer systems
- v. Be able to assemble and install microcomputers.
- vi. Partition and format disks and load files
- vii. Install window NT\200x in a multi-boot configuration.
- viii. Partition and format disks and load files
- ix. Install and uninstall software
- x. Detect technical faults in a Micro Computer
- xi. Setup and troubleshoot basic Network in LAN

**Mode of Study:** Full-time

**Duration:** 4 Semester

### **Entry Requirements:**

Minimum of Five credits passes in Physics, Mathematics, English language and any other two from Chemistry, Metal works, Technical Drawing, Basic Electronics, Biology or Agricultural Science, Geography, and Further Mathematics. A minimum of 100 score in UTME is also required.

## COURSE CONTENTS

### NID 1 FIRST SEMESTER

| COURSE CODE | COURSE TITLE                     | L         | T | P         | CU        | CH        |
|-------------|----------------------------------|-----------|---|-----------|-----------|-----------|
| GNS 101     | USE OF ENGLISH                   | 2         | - | -         | 2         | 2         |
| MTH 112     | LOGIC AND LINEAR ALGEBRA         | 2         | - | -         | 2         | 2         |
| CHT 101     | BASIC ELECTRICITY                | 2         | - | 2         | 3         | 3         |
| CHT 111     | OPERATING SYSTEMS                | 2         | - | 4         | 3         | 3         |
| CHT 112     | COMPUTER WORKSHOP AND PRACTICE I | 2         | - | 4         | 3         | 3         |
| CHT 113     | BASIC ELECTRONICS                | 2         | - | 4         | 3         | 3         |
| HSE 119     | SURVIVAL SWIMMING I              | 2         | - | 4         | 2         | 2         |
| HSE 113     | COMPUTER SAFETY I                | 2         | - | 4         | 2         | 2         |
|             | <b>TOTAL</b>                     | <b>16</b> |   | <b>22</b> | <b>20</b> | <b>20</b> |

### NID 1 SECOND SEMESTER

| COURSE CODE | COURSE TITLE   | L         | T        | P         | CU        | CH        |
|-------------|--|-----------|----------|-----------|-----------|-----------|
| GNS 102     | USE OF ENGLISH II                                      | 2         | -        | -         | 2         | 2         |
| MTH 232     | CALCULUS   | 2         | -        | -         | 2         | 2         |
| EDP 111     | INTRODUCTION TO ENTREPRENEURSHIP                       | 2         | -        | -         | 2         | 2         |
| CHT 121     | DIGITAL ELECTRONICS                                    | 2         | -        | 4         | 3         | 3         |
| CHT 122     | SYSTEM ARCHITECTURE I                                  | 2         | -        | 4         | 3         | 3         |
| CHT 123     | INTRODUCTION TO MICROCOMPUTER AND APPLICATION PACKAGES | 2         | -        | 2         | 3         | 3         |
| HSE 129     | SURVIVAL SWIMMING II                                   | 2         | -        | 4         | 2         | 2         |
| HSE 123     | COMPUTER SAFETY II                                     | 2         | -        | 4         | 2         | 2         |
|             | <b>TOTAL</b>   | <b>16</b> | <b>-</b> | <b>22</b> | <b>19</b> | <b>19</b> |

### NID 2 FIRST SEMESTER

Industrial Training (3 months)

| COURSE CODE | COURSE TITLE                  | L        | T | P         | CU        | CH        |
|-------------|-------------------------------|----------|---|-----------|-----------|-----------|
| CHT 211     | PC ASSEMBLING AND UPGRADING   | 2        | - | 4         | 6         | 6         |
| CHT 212     | SYSTEM ARCHITECTURE II        | 2        | - | 4         | 6         | 6         |
| CHT 213     | COMPUTER WORKSHOP PRACTICE II | 2        | - | 4         | 6         | 6         |
| CHT 214     | BASIC NETWORKING              | 2        | - | 4         | 6         | 6         |
|             | <b>TOTAL</b>                  | <b>8</b> |   | <b>16</b> | <b>24</b> | <b>24</b> |

### NID 2 SECOND SEMESTER

| COURSE CODE | COURSE TITLE                        | L        | T | P        | CU        | CH        |
|-------------|-------------------------------------|----------|---|----------|-----------|-----------|
| CHT 225     | CONSUMER ELECTRONICS                | 2        | - | 4        | 6         | 6         |
| CHT 221     | TROUBLESHOOTING AND REPAIRS         | 2        | - | 4        | 6         | 6         |
| CHT 222     | SOFTWARE INSTALLATION AND UPGRADING | 2        | - | 4        | 6         | 6         |
| EDP 223     | PRACTICE OF ENTREPRENEURSHIP        | 2        | - | -        | 2         | 2         |
| CHT 224     | PROJECT                             | -        | - | 6        | 6         | 6         |
|             | <b>TOTAL</b>                        | <b>8</b> |   | <b>6</b> | <b>26</b> | <b>26</b> |

## **DEPARTMENT OF NETWORKING & SYSTEM SECURITY**

### **Introduction/Goal:**

To produce technically competent manpower to meet the National requirements in the areas of designing, installation, maintenance and management of local, wide area and wireless network environment

### **Course Objectives:**

A product of NIED in Networking & System Security should be able to:

- i. Diagnose and correct faults on different networks;
- ii. Implement network security and handle backup and recovery;
- iii. Install, configure and troubleshoot all types of network hardware devices;
- iv. Set up and upgrade a computer network;
- v. Start a small and medium scale enterprise that would provide solutions to organizations' networks;
- vi. Manage and administer computer network for optimum utilization;
- vii. Update the performance and baseline of a network using network monitoring tools.

**Mode of Study:** Full-time

**Duration:** 4 Semester

### **Entry Requirements:**

Minimum of Five credits passes in Physics, Mathematics, English language and any other two from Chemistry, Metal works, Technical Drawing, Basic Electronics, Biology or Agricultural Science, Geography, and Further Mathematics. A minimum of 100 score in UTME is also required.

## COURSE CONTENTS

### NID 1 FIRST SEMESTER

| COURSE CODE | COURSE TITLE                  | L | T | P | CU        | CH        |
|-------------|-------------------------------|---|---|---|-----------|-----------|
| GNS 101     | USE OF ENGLISH I              | 2 | - | - | 2         | 2         |
| MTH 101     | MATHEMATICS I                 | 2 | 2 | - | 3         | 3         |
| NSS 111     | BASIC COMPUTER SKILLS         | 2 | - | 3 | 3         | 3         |
| NSS 112     | COMPUTER APPLICATION PACKAGES | 1 | - | 3 | 3         | 3         |
| NSS 113     | INTRODUCTION TO NETWORKING    | 2 | - | 3 | 3         | 3         |
| NSS 114     | NETWORK OPERATING SYSTEM      | 2 | - | 3 | 3         | 3         |
| HSE 119     | SURVIVAL SWIMMING I           | 2 | - | - | 2         | 2         |
| HSE 113     | COMPUTER SAFETY I             | 2 | - | - | 2         | 2         |
|             | <b>TOTAL</b>                  |   |   |   | <b>21</b> | <b>21</b> |

### NID 1 SECOND SEMESTER

| COURSE CODE | COURSE TITLE                                  | L | T | P | CU        | CH        |
|-------------|---|---|---|---|-----------|-----------|
| GNS 102     | USE OF ENGLISH II                             | 2 | - | - | 2         | 2         |
| MTH 102     | MATHEMATICS II                                | 2 | 2 | - | 3         | 3         |
| GNS 103     | ENTREPRENEURSHIP                              | 2 | - | - | 2         | 2         |
| NSS 121     | NETWORK DESIGN TOPOLOGY AND NETWORK PROTOCOLS | 2 | - | 3 | 3         | 3         |
| NSS 122     | NETWORK CABLING                               | 1 | - | 3 | 3         | 3         |
| NSS 123     | INTRODUCTION TO NETWORKING DEVICES            | 2 | - | 3 | 3         | 3         |
| HSE 129     | SURVIVAL SWIMMING II                          | 2 | - | - | 2         | 2         |
| HSE 123     | COMPUTER SAFETY II                            | 2 | - | - | 2         | 2         |
|             | <b>TOTAL</b>                                  |   |   |   | <b>20</b> | <b>20</b> |

### NID 2 FIRST SEMESTER

| COURSE CODE | COURSE TITLE                     | L         | T | P         | CU        | CH        |
|-------------|----------------------------------|-----------|---|-----------|-----------|-----------|
| GNS 201     | CITIZENSHIP EDUCATION            | 2         | - | -         | 2         | 2         |
| GNS 202     | TECHNICAL REPORT WRITING         | 2         | - | -         | 2         | 2         |
| NSS 231     | INTRODUCTION TO WAN TECHNOLOGIES | 2         | - | 3         | 5         | 5         |
| NSS 232     | NETWORK SECURITY                 | 2         | - | 3         | 5         | 5         |
| NSS 233     | POWER & NETWORK MANAGEMENT       | 2         | - | 3         | 5         | 5         |
| NSS 234     | DATA SECURITY                    | 2         | - | 3         | 5         | 5         |
|             | <b>TOTAL</b>                     | <b>12</b> |   | <b>12</b> | <b>24</b> | <b>24</b> |

### NID 2 SECOND SEMESTER

| COURSE CODE | COURSE TITLE                  | L        | T | P         | CU        | CH        |
|-------------|-------------------------------|----------|---|-----------|-----------|-----------|
| NSS241      | WEB SERVER FUNDAMENTALS       | 2        | - | 3         | 5         | 5         |
| NSS242      | FUNDAMENTALS OF WIRELESS LANS | 2        | - | 3         | 5         | 5         |
| NSS243      | PROJECT MANAGEMENT            | 2        | - | 3         | 5         | 5         |
| NSS244      | FINAL YEAR PROJECT            | -        | - | 6         | 6         | 6         |
|             | <b>TOTAL</b>                  | <b>6</b> |   | <b>15</b> | <b>21</b> | <b>21</b> |

## **PROGRAM OF STUDY - 2**

### **PROFESSIONAL DIPLOMA**

#### **List of Departments/Courses**

1. Welding & Fabrication Technology
2. Computer Hardware Engineering Technology
3. Plumbing & Pipefitting Technology/Gas Installation
4. Lifting Equipment Technology
5. Instrumentation & Automation Technology
6. Electrical Installation Maintenance Technology
7. Underwater Diving
8. Fitting & Machining Technology

**Note: All courses are available as full time, part-time and online**



## **DEPARTMENT OF WELDING AND FABRICATION TECHNOLOGY**

### **Introduction:**

The course is approved by Nigerian Institute of Welding, (NIW) which is a member of the International Institute of Welding (IIN). The body was established to define guidelines for the education, training, qualification and certification of personnel involve in welding.

### **Course Objective:**

On completion of the programme, the graduate should be able to:

- i. Carry out welding and fabrication operations.
- ii. Develop the ability to communicate their knowledge of techniques, processes and materials by developing their graphical skills including freehand sketching and measured drawing.
- iii. Provide experience in the use of some common machine tools.
- iv. Apply adequate Information Technology (IT) skills.
- v. Apply safety rules as regards safety procedures in the welding/construction industries.
- vi. Competent practical-wise and fit to work in the oil and gas, construction and other industries
- vii. Be self-employed and employ others.

**Mode of Study:** Full-time, Part-time and Online

**Duration:** 2 Module (6 months)

### **Entry Requirements:**

Minimum of Four (4) credit to include English and mathematics and any other two subjects or equivalent NTC/TTC/C&G/NABTEB. Graduates of higher institution of learning and non- science students can also apply.

## **WELDING & FABRICATION TECHNOLOGY**

### **COURSE CONTENTS**

#### **MODULE A**

| <b>S/N</b> | <b>COURSE TITLE</b>      | <b>COURSECODE</b> | <b>UNIT</b> |
|------------|--------------------------|-------------------|-------------|
| 1          | FILLET WELDING PRACTICE  | WFT 111           | 6           |
| 2          | FILLET WELDING THEORY    | WFT 112           | 3           |
| 3          | PLATE WELDING THEORY     | WFT 113           | 3           |
| 4          | PLATE WELDING PRACTICE I | WFT 114           | 3           |
| 5          | WORKSHOP TECHNOLOGY      | WFT 115           | 2           |
| 6          | TECHNICAL DRAWING        | DRW 111           | 2           |
| 7          | TECHNICAL MATHS          | TMS 111           | 2           |
| 8          | INDUSTRIAL SAFETY        | HSE 111           | 3           |
| 9          | INTRODUCTION TO SWIMMING | HSE 112           | 2           |
| 10         | COMMUNICATION SKILLS     | GNS 111           | 2           |
|            | <b>TOTAL COURSE UNIT</b> |                   | <b>28</b>   |

#### **MODULE B**

| <b>S/N</b> | <b>COURSE TITLE</b>                 | <b>COURSE CODE</b> | <b>UNIT</b> |
|------------|-------------------------------------|--------------------|-------------|
| 1          | PIPE WELDING THEORY                 | WFT 121            | 3           |
| 2          | PIPE WELDING PRACTICE               | WFT 122            | 6           |
| 3          | INTRODUCTION TO MIG & TIG           | WFT 123            | 2           |
| 4          | PLATE WELDING PRACTICE II           | WFT 124            | 3           |
| 5          | CORROSION CONTROL AND COATINGS      | WFT 125            | 2           |
| 6          | INTRODUCTION TO NDT/QA & QC         | WFT 126            | 2           |
| 7          | GAS CUTTING & WELDING               | WFT 127            | 2           |
| 8          | PROJECT COSTING                     | CAS 124            | 2           |
| 9          | ENGINEERING DRAWING AND DEVELOPMENT | DRW 121            | 2           |
| 10         | INTRODUCTION TO ENTERPRENEURSHIP    | GNS 121            | 2           |
|            | <b>TOTAL COURSE UNIT</b>            |                    | <b>26</b>   |

## **DEPARTMENTS OF COMPUTER HARDWARE TECHNOLOGY**

### **Introduction/Goal:**

To impart the necessary skills leading to the acquisition of skilled, enterprising and self-reliant personnel in Computer Hardware Engineering Technology.

### **Course Objectives:**

On completion of the programme, the graduate should be able to:

- i. Operate and maintain basic Operating Systems (DOS & Windows}
- ii. Understand the computer environment and acquire the skills needed to identify and optimize memory and computer configuration.
- iii. Start and manage computer-based businesses.
- iv. Carry out routine (preventive) maintenance of Computer systems
- v. Be able to assemble and install microcomputers.
- vi. Partition and format disks and load files
- vii. Install window NT\200x in a multi-boot configuration.
- viii. Partition and format disks and load files
- ix. Install and uninstall software
- x. Detect technical faults in a Micro Computer
- xi. Setup and troubleshoot basic Network in LAN

**Mode of Study:** Full-time, Part-time and Online

**Duration:** 2 Module (6 months)

### **Entry Requirements:**

Minimum of Four (4) credit to include English and mathematics and any other two subjects or equivalent NTC/TTC/C&G/NABTEB. Graduates of higher institution of learning and non- science students can also apply.

## COMPUTER HARDWARE ENGINEERING TECHNOLOGY

### COURSE CONTENT

#### MODULE A

| SN | COURSE TITLE                                  | COURSE CODE | UNITS     |
|----|---|-------------|-----------|
| 1  | COMPUTER WORKSHOP PRACTICE                    | CHT 111     | 6         |
| 2  | OPERATING SYSTEMS                             | CHT 112     | 3         |
| 3  | INTRO TO MICROCOMPUTER & APPLICATION PACKAGES | CHT 113     | 3         |
| 4  | ELECTRICAL FUNDAMENTALS                       | EET 112     | 3         |
| 5  | COMMUNICATION SKILLS                          | GNS 111     | 2         |
| 6  | INDUSTRIALSAFETY                              | HSE 111     | 3         |
| 7  | BASIC NETWORKING                              | CHT 114     | 3         |
| 8  | INTRODUCTION TO ENTREPRENEURSHIP              | GNS 121     | 2         |
| 9  | PROJECT COSTING                               | CAS 124     | 2         |
| 10 | INTRODUCTION TO SWIMMING                      | HSE 112     | 2         |
|    | <b>TOTAL</b>                                  |             | <b>29</b> |

#### MODULE B: INDUSTRIAL ATTACHMENT

| SN | COURSE TITLE                         | COURSE CODE | UNITS    |
|----|--------------------------------------|-------------|----------|
| 1  | INDUSTRIAL ATTACHMENT REPORT/DEFENSE | CHT 121     | 6        |
|    | <b>TOTAL</b>                         |             | <b>6</b> |

## **DEPARTMENT OF PLUMBING AND PIPE FITTING TECHNOLOGY**

### **Introduction:**

The Plumbing and pipe fitting course is designed to create appreciation of the trade and develop professional skills within the plumbing and piping Industry.

### **Course Objectives:**

On completion of the programme, the graduate should be able to:

- i. Make installation of sanitary applications
- ii. Prepare cost estimate of the trade
- iii. Make necessary or required maintenance
- iv. Work in any establishment as a plumbing maintenance officer
- v. Be self-employed and employ other
- vi. Identify all plumbing tools and materials
- vii. Maintain the tools and equipment of the trade

**Mode of Study:** Full-time, Part-time and Online

**Duration:** 2 Module (6 months)

### **Entry Requirements:**

Minimum of (4) credits, Including Mathematics and English at SSCE Level or equivalent, NTC/TTC/C&G/NABTEB **(NON SCIENCE CANDIDATE CAN ALSO APPLY)**

**PLUMBING AND PIPE FITTING TECHNOLOGY  
COURSE CONTENTS**

**MODULE A**

| <b>S/N</b> | <b>COURSE TITLE</b>                | <b>COURSE CODES</b> | <b>UNIT</b> |
|------------|------------------------------------|---------------------|-------------|
| 1          | PLUMBING PRACTICE                  | PPT 111             | 6           |
| 2          | PLUMBING PRINCIPLE                 | PPT 112             | 3           |
| 3          | SANITATION SYSTEM                  | PPT 114             | 3           |
| 4          | FILLET WELDING (THEORY & PRACTICE) | WFT 111             | 3           |
| 5          | WORKSHOP TECHNOLOGY                | WFT 115             | 2           |
| 6          | TECHNICAL DRAWING                  | DRW 111             | 2           |
| 7          | TECHNICAL MATHS                    | TMS 111             | 2           |
| 8          | INDUSTRIAL SAFETY                  | HSE 111             | 3           |
| 9          | INTRODUCTION TO SWIMMING           | HSE 112             | 2           |
| 10         | COMMUNICATION SKILLS               | GNS 111             | 2           |
|            | <b>TOTAL COURSE UNIT</b>           |                     | <b>28</b>   |

**MODULE B**

| <b>S/N</b> | <b>COURSE TITLE</b>                         | <b>COURSE CODES</b> | <b>UNIT</b> |
|------------|---|---------------------|-------------|
| 1          | PIPE FITTING PRACTICE                       | PPT 121             | 6           |
| 2          | COLD & HOT WATER SUPPLY SYSTEM              | PPT 122             | 3           |
| 3          | PLUMBING BLUE PRINT                         | PPT 123             | 2           |
| 4          | INTRODUCTION TO GAS INSTALLATION TECHNOLOGY | PPT 124             | 2           |
| 5          | ENVIRONMENTAL AWARENESS                     | PPT 125             | 3           |
| 6          | CORROSION CONTROL AND COATINGS              | WFT 125             | 2           |
| 7          | GAS CUTTING & WELDING                       | WFT 127             | 2           |
| 8          | ENGINEERING DRAWING AND DEVELOPMENT         | DRW 121             | 2           |
| 9          | PROJECT COSTING                             | CAS 124             | 2           |
| 10         | INTRODUCTION TO ENTREPRENEURSHIP            | GNS 121             | 2           |
|            | <b>TOTAL COURSE UNIT</b>                    |                     | <b>28</b>   |

## **LIFTING EQUIPMENT DEPARTMENT**

### **Introduction:**

Lifting Equipment is a type of machine, generally equipped with a hoist, wire ropes or chains, and sheaves, that can be used both to lift and lower materials and to move them horizontally. It is mainly used for lifting heavy things and transporting them to other places. It uses one or more simple machines to create mechanical advantage and thus move loads beyond the normal capability of a human. Cranes are commonly employed in the transport industry for the loading and unloading of freight, in the construction industry for the movement of materials and in the manufacturing industry for the assembling of heavy equipment.

### **Course Objectives:**

On completion of the programme, the graduate should be able to:

- i. work supervisors or inspectors in oil and gas, construction, manufacturing and process industries within and outside Nigeria.
- ii. know the basics of lifting equipment safety
- iii. know the types and applications of mobile lift equipment including forklifts and mobile cranes
- iv. know the types and applications of mobile lifting equipment
- v. Forklifts and Truck Cranes stability
- vi. apply principle of operation of various stability monitoring systems used in modern forklifts and truck cranes
- vii. apply application of forklift attachments and the lifting tackles
- viii. inspect the lifting tackles including wire ropes, synthetic slings, clips, hooks, sockets, eyebolts, and hoist rings
- ix. apply a standard inspection procedure on truck cranes and write the relevant report
- x. maintain the forklifts and truck cranes. etc.

**Mode of Study:** Full-time, Part-time and Online

**Duration:** 2 Module (9 months)

### **Entry Requirements:**

Open to applicants with the following:

WASC, ND, BSc. /HND in Engineering and Sciences or its equivalent. candidates must also possess a current driving license

**LIFTING EQUIPMENT TECHNOLOGY**  
**COURSE CONTENTS**

**MODULE A**

| <b>S/N</b> | <b>COURSE TITLE</b>                     | <b>COURSE CODE</b> | <b>COURSE UNIT</b> |
|------------|---|--------------------|--------------------|
| 1          | COMMUNICATION SKILLS                    | GNS 111            | 2                  |
| 2          | INDUSTRIAL SAFETY                       | HSE 111            | 3                  |
| 3          | WIRE ROPE                               | LET 112            | 3                  |
| 4          | LIFTING EQUIPMENT LOADING               | LET 113            | 3                  |
| 5          | LIFTING EQUIPMENT COMMUNICATION& SAFETY | LET 114            | 3                  |
| 6          | WORKSHOP TECHNOLOGY                     | WFT 115            | 2                  |
| 7          | TECHNICAL MATHS                         | TMS 111            | 2                  |
| 8          | INTRODUCTION TO SWIMMING                | HSE 112            | 2                  |
| 9          | PROJECT COSTING                         | CAS 124            | 2                  |
|            | <b>TOTAL COURSE UNIT</b>                |                    | <b>22</b>          |

**MODULE B: INDUSTRIAL ATTACHMENT**

| <b>S/N</b> | <b>COURSE TITLE</b>                  | <b>COURSE CODE</b> | <b>COURSE UNIT</b> |
|------------|--------------------------------------|--------------------|--------------------|
| 1          | INDUSTRIAL ATTACHMENT REPORT/DEFENSE | LET 115            | 6                  |
|            | <b>TOTAL COURSE UNIT</b>             |                    | <b>6</b>           |



## **DEPARTMENT OF INSTRUMENTATION& AUTOMATION TECHNOLOGY**

### **Introduction:**

As Instrumentation and Automation is the heart of any modern process industry, there is need to equip the generation of students with the necessary skills to bridge the gap, the new trend of technology presents.

Skilled Instrumentation technician/engineer are proudly committed to offer the most sophisticated and extensive quality service, support and engineering capabilities in the field of process measurement and control, automation test & calibration. The need why the department was set up is to bridge the vacuum, as a result of this new trend of technology, to reduce the over-dependence on man-power.

### **Course Objectives:**

On completion of the programme, the graduate should be able to:

- i. understand the advantages of instrumentation over manual monitoring and measurement of process parameters such as temp, pressure, level, flow. Etc.,
- ii. understand the basic principles of monitoring instruments for most process parameters (thermostat, gauges, meters, thermocouple etc.),
- iii. knows electrical measurement of parameters and calibrations of meters,
- iv. understand basic electrical control circuits DOL, Star-Delta, speed control,
- v. understand logic gates and usage,
- vi. knows basic communications between input devices, controller and out-put devices,
- vii. understand the introduction to controllers (PLC) configuration, step ladder, step 7, statement list, and,
- viii. understand SCADA and HMI usages in automation system controls. Etc.

**Mode of Study:** Full-time, Part-time and Online

**Duration:** 2 Module (6 months)

### **Entry Requirements:**

Open to applicants with the following:

WASC, ND, BSc. /HND in Engineering and Sciences with a minimum of four (4) credits including Mathematics, Physics and Pass in English at SSCE level or equivalent NTC/TTC/C&G/NABTEB

## **INSTRUMENTATION& AUTOMATION TECHNOLOGY**

### **COURSE CONTENTS**

#### **MODULE A**

| <b>S/N</b>               | <b>COURSE TITLE</b>                  | <b>COURSE CODE</b> | <b>UNITS</b> |
|--------------------------|--------------------------------------|--------------------|--------------|
| 1                        | ELECTRICAL INSTRUMENTATION PRACTICAL | IMC 111            | 6            |
| 2                        | ELECTRICAL FUNDAMENTALS              | EET 112            | 3            |
| 3                        | INSTRUMENTATION AND MEASUREMENT      | IMC 113            | 3            |
| 4                        | TECHNICAL DRAWING                    | DRW 111            | 2            |
| 5                        | COMMUNICATION SKILLS                 | GNS 111            | 2            |
| 6                        | INDUSTRIAL SAFETY                    | HSE 111            | 3            |
| 7                        | INTRODUCTION TO SWIMMING             | HSE 112            | 2            |
| 8                        | TECHNICAL MATHS                      | TMS 111            | 2            |
| 9                        | WORKSHOP TECHNOLOGY                  | WFT 115            | 2            |
| <b>TOTAL COURSE UNIT</b> |                                      |                    | <b>25</b>    |

#### **MODULE B**

| <b>S/N</b>               | <b>COURSE TITLE</b>                 | <b>COURSE CODE</b> | <b>UNITS</b> |
|--------------------------|-------------------------------------|--------------------|--------------|
| 1                        | PROCESS AUTOMATION PRACTICAL        | IMC 121            | 6            |
| 2                        | ELECTRONICS II                      | IMC 122            | 3            |
| 3                        | ELECTRICAL MACHINES                 | IMC 123            | 3            |
| 4                        | PROCESS AUTOMATION FUNDAMENTALS     | IMC 124            | 3            |
| 5                        | ENGINEERING DRAWING AND DEVELOPMENT | DRW 121            | 2            |
| 6                        | PROJECT COSTING                     | CAS 124            | 2            |
| 7                        | INTRODUCTION TO ENTREPRENEURSHIP    | GNS 121            | 2            |
| <b>TOTAL COURSE UNIT</b> |                                     |                    | <b>21</b>    |

## **DEPARTMENT OF ELECTRICAL INSTALLATION & MAINTENANCE TECHNOLOGY**

### **Introduction:**

Installation – the act or process of making a machine, a service or the act of installing something. Maintenance – the upkeep of property or equipment. Electrician - a person who works on and repairs electrical equipment or one who installs, maintains, operates electrical equipment

An electrical installation comprises all the fixed electrical equipment that is supplied through the electricity meter. Satisfactory earthing arrangements are in place to ensure that a fuse or circuit breaker can quickly clear an electrical fault before it causes an electric shock or fire

At GIPI, trainees would be taught the art of routine Electrical Maintenance, (*Wiring, Electric Motor, Generator, Pump, etc*) how to Protects Expensive Equipment, reduce Energy Costs.etc.

### **Course Objectives:**

On completion of the programme, the graduate should be able to:

- i. understand the basic principles of power distribution of an area,
- ii. understand the basic power distribution in a house, workshop or an office,
- iii. be able to competently install household and light industrial equipment,
- iv. be able to design, read and interpret basic electrical control circuits,
- v. carry out basic routine maintenance of household and light industrial equipment,
- vi. know the required effective electrical protections for simple installation and equipment, and
- vii. understand financial/economics advantages of quality installation and quality post installation maintenance. etc.

**Mode of Study:** Full-time, Part-time and Online

**Duration:** 2 Module (6 months)

### **Entry Requirements:**

Open to applicants with the following:

WASC, ND, BSc. /HND in Engineering and Sciences with a minimum of four (4) credits including Mathematics, Physics and Pass in English at SSCE level or equivalent NTC/TTC/C&G/NABTEB

## **ELECTRICAL INSTALLATION & MAINTENANCE TECHNOLOGY**

### **COURSE CONTENTS**

#### **MODULE A**

| <b>S/N</b> | <b>COURSE CODE</b>       | <b>COURSE TITLE</b>      | <b>COURSE CODES</b> | <b>UNITS</b> |
|------------|--------------------------|--------------------------|---------------------|--------------|
| 1          | EET 111                  | ELECTRICAL PRACTICAL1    | EET 111             | 6            |
| 2          | EET 112                  | ELECTRICAL FUNDAMENTALS  | EET112              | 3            |
| 3          | EET 113                  | ELECTRICAL INSTALLATION  | EET113              | 3            |
| 4          | HSE 111                  | INDUSTRIAL SAFETY        | HSE 111             | 3            |
| 5          | WFT 115                  | WORKSHOP TECHNOLOGY      | WFT 115             | 2            |
| 6          | TMS 111                  | TECHNICAL MATHS          | TMS 111             | 2            |
| 7          | DRW 111                  | TECHNICAL DRAWING        | DRW 111             | 2            |
| 8          | HSE 112                  | INTRODUCTION TO SWIMMING | HSE 112             | 2            |
| 9          | GNS 111                  | COMMUNICATION SKILLS     | GNS 111             | 2            |
|            | <b>TOTAL COURSE UNIT</b> |                          |                     | <b>25</b>    |

#### **MODULE B**

| <b>S/N</b> | <b>COURSE TITLE</b>                 | <b>COURSE CODE</b> | <b>UNITS</b> |
|------------|-------------------------------------|--------------------|--------------|
| 1          | ELECTRICAL PRACTICAL II             | EET 121            | 6            |
| 2          | ELECTRONICS                         | EET 122            | 3            |
| 3          | ELECTRICAL EQUIPMENT                | EET 123            | 3            |
| 4          | ELECTRICAL CONTROL CIRCUITS         | EET 124            | 3            |
| 5          | ENGINEERING DRAWING AND DEVELOPMENT | DRW 121            | 2            |
| 6          | PROJECT COSTING                     | CAS 124            | 2            |
| 7          | INTRODUCTION TO ENTREPRENEURSHIP    | GNS 121            | 2            |
|            | <b>TOTAL COURSE UNIT</b>            |                    | <b>21</b>    |

## **DEPARTMENT OF UNDERWATER DIVING**

### **Introduction:**

Almost, two-thirds of the world's surface is covered with water, while the abyssal depths account for the greater part of this, there are many millions of square miles of sea-bed which are within reach of the trained diver, most of this is yet unexplored.

If discovery drives you, welcome to inner space. It's somewhat cliché, yet true, that we know the bottom of the moon better than we know the bottom of the oceans.

The pleasure of diving is many-sided and as diverse as the feelings of those taking part, but since it depends upon entry into water environment, it must first be anticipated, assimilated and understood before it can be enjoyed to the full.

### **Course Objectives:**

On completion of the programme, the graduate should be able to:

- i. takes up diving for a specific purpose such as scientific investigation,
- ii. go into underwater photography or salvage,
- iii. Enjoy the thrill of exploring a new, alien and fascinating world that lures them to take up diving,
- iv. see things most people never see and go where most people never go.
- v. capable of swimming confidently and without excessive effort over distances of 200-300 meters,
- vi. work as a diver instructor/swimming coach,
- vii. works in hotels and in recreation centers as a diver. etc

**Mode of Study:** Full-time, Part-time and Online

**Duration:** 2 Module (6 months)

### **Entry Requirements:**

Minimum of (4) credits, Including Mathematics and English at SSCE Level or equivalent, NTC/TTC/C&G/NABTEB **(NON SCIENCE CANDIDATE CAN ALSO APPLY)**

**COURSE CONTENTS**  
**MODULE A**

| <b>COURSE CODE</b> | <b>COURSE TITLE</b>                | <b>UNIT</b> |
|--------------------|------------------------------------|-------------|
| DCM 111            | INTRODUCTION TO DIVING             | 2           |
| DCM 112            | THE DIVING ENVIRONMENT             | 2           |
| DCM 113            | SWIMMING (A TEST)                  | 2           |
| DCM 114            | PHYSICS OF DIVING                  | 3           |
| DCM 115            | MEDICAL                            | 3           |
| DCM 116            | THE SEA                            | 2           |
| DCM 117            | CECOMPRESSION                      | 3           |
| HSE 119            | SURVIVAL SWIMMING & WATER SAFETY 1 | 3           |
| GNS 111            | COMMUNICATION SKILLS 1             | 2           |
| DCM 118            | GAS POISONING                      | 3           |
|                    | <b>TOTAL</b>                       | <b>25</b>   |

**MODULE B**

| <b>COURSE CODE</b> | <b>COURSE TITLE</b>       | <b>UNIT</b> |
|--------------------|---------------------------|-------------|
| DCM 211            | BASIC EQUIPMENT           | 3           |
| DCM 212            | SNORKELLING BASIC SKILLS  | 3           |
| DCM 213            | AQUALUNG                  | 3           |
| DCM 214            | FIRST AID & RESUSCITATION | 2           |
| DCM 215            | SAFETY AND LIFE- SAVING   | 2           |
| DCM 216            | OPEN WATER DIVES          | 4           |
| DCM 217            | DIVING TECHNIQUES         | 3           |
| GNS 121            | COMMUNICATION SKILLS      | 3           |
| DCM 218            | SEAMANSHIP                | 3           |
|                    | <b>TOTAL</b>              | <b>26</b>   |

## **DEPARTMENT OF FITTING & MACHINING TECHNOLOGY**

### **Introduction:**

Fitting & Machining focuses on the manufacturing and machining of machines parts using processes such as lathe turning, milling, cutting, shaping, fitting of keys, couplings, bushes, shafts and bearings.

Metal Fitters and Machinists fit and assemble fabricated metal parts into products, set up machining tools, production machines and textile machines, and operate machining tools and machines to shape metal stock and castings.

### **Course Objectives:**

On completion of the programme, the graduate should be able to:

- i. Understand various fitting and machining processes
- ii. Carry out various practical processes of
  - Turning
  - Drilling
  - Shaping
  - Surfacing
  - Planing
  - Step turning
  - Threading operation using lathe and milling machines
- iii. Practically design/interpret the draft and transform such produce/manufacture machine parts
- iv. Fit and assemble, maintain and repair various fixed pipes especially in oil and gas installations and other industries
- v. Provide experience in the use of simple machines and tools for production in industries
- vi. Practically should be self-employed and employ others.

**Mode of Study:** Full-time, Part-time and Online

**Duration:** 2 Module (6 months)

### **Entry Requirements:**

Minimum of Four (4) credit in English and mathematics and any other two (2) subjects at SSCE level or equivalent NTC/TTC/C&G/NABTEB. Graduates of higher institution of learning and non-science students can also apply.

## **FITTING & MACHINING TECHNOLOGY**

### **COURSE CONTENTS**

#### **MODULE A**

| <b>S/N</b> | <b>COURSE TITLE</b>            | <b>COURSE CODE</b> | <b>COURSE UNIT</b> |
|------------|--------------------------------|--------------------|--------------------|
| 1          | LATHE MACHINE PRACTICE I       | FAM 111            | 6                  |
| 2          | COMMUNICATION SKILLS           | GNS 111            | 2                  |
| 3          | INDUSTRIAL SAFETY              | HSE 111            | 3                  |
| 4          | WORKSHOP TECHNOLOGY            | WFT 115            | 3                  |
| 5          | MACHINE DRILLING AND THREADING | FAM 113            | 3                  |
| 6          | TECHNICAL DRAWING              | DRW 111            | 2                  |
| 7          | TECHNICAL MATHS                | TMS 111            | 2                  |
|            | <b>TOTAL COURSE UNIT</b>       |                    | <b>21</b>          |

#### **MODULE B**

| <b>S/N</b> | <b>COURSE TITLE</b>                  | <b>COURSE CODE</b> | <b>COURSE UNIT</b> |
|------------|--------------------------------------|--------------------|--------------------|
| 1          | FITTING & MACHINING PROCESS PRACTICE | FAM 121            | 6                  |
| 2          | FITTING & MACHINING THEORY           | FAM 122            | 3                  |
| 3          | METAL JOINING PROCESS                | FAM 123            | 3                  |
| 4          | ENGINEERING DRAWING AND DEVELOPMENT  | DRW 121            | 2                  |
| 5          | PROJECT COSTING                      | CAS 124            | 2                  |
| 6          | INTRODUCTION TO ENTREPRENEURSHIP     | GNS 121            | 2                  |
|            | <b>TOTAL COURSE UNIT</b>             |                    | <b>18</b>          |



## SHORT-TERM COURSES

The Institute also run short-term courses in the under listed area of specialization. Interested candidates or organizations could negotiate for suitable time convenient for their staff/employees. `

| <b>S/N</b> | <b>COURSES</b>                | <b>DURATION</b> |
|------------|-------------------------------|-----------------|
| 1          | TIG/MIG (Argon Welding)       | 10 Days         |
| 2          | Flux Cored Arc Welding        | 10 days         |
| 3          | Basic First Aid               | 2 Days          |
| 4          | Industrial First Aid & CPR    | 5 Days          |
| 5          | Basic Fire Fighting           | 2 Days          |
| 6          | Advance Fire Fighting/ Safety | 3 Days          |
| 7          | HSE Competence (I,II&III)     | 10 Days         |
| 8          | Industrial Safety Awareness   | 2 Days          |
| 9          | Occupational Health           | 3 Days          |
| 10         | Scaffolding                   | 5 Days          |
| 11         | Survival Swimming             | 10 Days         |
| 12         | Metrology & Calibration       | 6 Days          |
| 13         | Watermanship I, II, III       | 10 Days         |
| 14         | MS Excel (Beginner – Advance) | 10 days         |