

FIELD OF STUDY : INDUSTRIAL

OPTION : NETWORKS AND TELECOMMUNICATION

SPECIALTY : NETWORKS AND SECURITY

1. OBJECTIVES OF TRAINING

This specialty trains senior technicians capable to :

- Identify the key issues for the realisation of the LAN/WAN/MAN network architectures and the hybridised existing form in the business environment and enterprise ;
- Link different network performance concepts and traffic issues for Quality of Service (QoS) in broadband communication as well as the network economies of the enterprise ;
- Motivate the need for network security practices in organisational units ;
- Build foundations to assess contemporary security policies and security mechanisms within organisations and illustrate the balance of the managerial and technical aspects of network security.

2. SKILLS SOUGHT AFTER

❖ General skills

- Self-employed, work together as a team ;
- Analyse, synthesise professional document (French, English) ;
- Oral and written business communication (French, English) ;
- Participate in / conduct an approach to the management of a project ;
- Know and exploit professional and institutional networks in the computer sectors.

❖ Specific skills

- Master telecommunications equipment ;
- Configure inverters, battery, solar panels and cables ;
- Master the technics of emission, transmission and reception of signals, images and sounds ;
- Install and configure hardware and software of networks and telecommunications systems ;
- Apply the quality control ;
- Apply exploitation procedures ;
- Optimise the operation of a network and the common protocols used ;
- Implement and administer Networks ;
- Participate to the development of specifications of a network topology or installation of a telecommunications system, manage and control the evolution of such installation in choosing the equipment and the appropriate software ;
- Coordinate the rehabilitation of an installation after the incidents such as fire.

3. CAREER OPPORTUNITIES

- Servicing companies and manufacturing networks equipment ;
- Telecommunication operators and Internet service providers ;
- Controller of the information System in enterprise ;
- Telephone installer ;
- Servicing companies and computer engineering.

4. PROGRAM DURATION

For a period of two years, a set of theoretical and practical courses is administered to students with a view to obtaining a Higher National Diploma (HND) sanctioned by MINESUP.

5. CONDITION FOR ADMISSION

Direct registration on file study :

- A hand written application addressed to the Director of SOUTH POLYTECH ;
- A complete registration form available on campus ;
- A photocopy of birth certificate ;
- A photocopy of A/L certificate ;
- Registration fees : 35,000 FCFA ;
- File study fees : free of charge ;
- Annual medical coverage : 5,000 F CFA.

6. PEDAGOGICAL APPROACH

- Lectures ;
- Practical work and personal work ;
- Immersion courses in the professions accompanied by a teaching body and company executives.

7. EVALUATION TECHNIQUES

- Continuous monitoring for each lecture ;
- An exam session (oral or written) at the end of each semester organised according to the subjects registered for the semester ;
- Writing of an internship report defended in front of a jury at the end of the cycle ;
- National HND exam.

8. ORGANISATION OF TEACHINGS

• FIRST SEMESTER

Code	Course titles	Number of credits
NWS111	Engineering Maths 1	4
NWS112	Physics and Computer Science 1	5
NWS113	Electronic circuits 1	5
NWS114	Circuit theory	3
NWS115	Introduction to Networks (Cisco i)	5
NWS116	Telecommunication 1	5
NWS117	Bilingual Training	3
Total		30

• SECOND SEMESTER

Code	Course titles	Number of credits
NWS121	Engineering maths II	4
NWS122	Physics and computer science II	5
NWS123	Télécommunication II	3
NWS124	Electronic circuits II	5
NWS125	Interconnecting CISCO Networking Devices II (Cisco II)	5
NWS126	Network administration and security 1	5
NWS127	Economies and Enterprise Organisation (EEO) and Law	3
Total		30

• THIRD SEMESTER

Code	Course titles	Number of credits
NWS231	Engineering maths III	4
NWS232	Physics and computer science III	5
NWS233	Telephony	5
NWS234	Telecommunication III	4
NWS235	Scaling Networks (Cisco III)	5
NWS236	Network administration and security II	4
NWS237	Enterprise creation and civics and moral education	3
Total		30

• FOURTH SEMESTER

Code	Course titles	Number of credits
NWS241	Engineering maths IV	4
NWS242	Physics and computer science IV	5
NWS243	Telecommunication IV	5
NWS244	Mobil Network and Security	3
NWS245	Connecting networks (Cisco iv)	4
NWS246	Internship	6
NWS247	General economies and General Accounting	3
Total		30