

FIELD OF STUDY : INDUSTRIAL

OPTION : ELECTRICAL AND ELECTRONIC ENGINEERING

SPECIALTY : ELECTROTECHNICS

1. OBJECTIVES OF TRAINING

This specialty aims to train specialists in the study, implementation, use and maintenance of electrical equipment and electrical network. Electrical equipment, and thereby electrical network, are more and more sophisticated because of the evolution of computer and electronic technologies. These can today involve processes of hydraulics, pneumatics, optics, etc. It aims to provide students with technical knowledge and know-how that will enable them to take part in the design, construction and management of electro technical Systems, mainly used in assembly lines or complex systems.

2. RESEARCH SKILLS

❖ **Generic skills**

- Work independently and in team collaboration ;
- Analyse, synthesise professional documents (French, English) ;
- Orally and writing communication (French, English) ;
- Participate in (other) lead project management process ;
- Know and exploit professional and institutional networks of electricity sectors.

❖ **Specific skills**

- Realise home and industrial electrical installation operate power and current conversion ;
- Understand and operate electronic modules for process control ;
- Carry out maintenance and maintenance work on the processing and production lines ;
- Ensure home automation and fire safety lead and realise a project in electricity.

3. CAREER OPPORTUNITIES

- Technician in charge of study ;
- Construction technician in electrical installation ;
- Maintenance technician ;
- Electromechanical ;
- Test technician ;
- Head of after-sales services.

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
ELT111	Mathematics 1	4
ELT112	Physics and Chemistry 1	5
ELT113	Basics of Electricity and Electrical circuit	5
ELU114	Electrical Machines	5
ELT115	Electronics and automation	5
ELT116	Construction Design	3
ELT117	Bilingual Training	3
Total		30

• SECOND SEMESTER

Code	Course titles	Number of credits
ELT121	Mathematics II	4
ELT122	Physics and Computer Science	5
ELT123	Electrical Machines and Measurement Technics	5
ELT124	Electronics and signal Processing	5
ELT125	Power Electronics	4
ELT126	CAD in Electrical Engineering	4
ELT127	Business creation, Civic and moral Education	3
Total		30

• THIRD SEMESTER

Code	Course titles	Number of credits
ELT231	Mathematics III	4
ELT232	Physics and Chemistry III	5
ELT233	Energy production and Schema	5
ELT234	Serving and Data communication	4
ELT235	Advanced Electronics	4
ELT236	Electrical Machines practicals works	5
ELT237	Accounting and labour law	3
Total		30

• FOURTH SEMESTER

Course Code	Course titles	Number of credits
ELT241	Mathematics IV	4
ELT242	Computer science II	5
ELT243	Maintenance and industrial Networks	5
ELT244	Electrical Installation and Equipments	4
ELT245	Practical Work Electrical Machine II	3
ELT246	Internship	6
ELT247	Economy and business organisation	3
Total		30