

FIELD OF STUDY : CIVIL ENGINEERING

OPTION : CIVIL AND STRUCTURAL ENGINEERING

SPECIALTY : BUILDING SCIENCE AND TECHNOLOGY

1. OBJECTIVES OF TRAINING

This specialty leads to the training of specialists in building, with good knowledge in all the techniques of a new construction or rehabilitation, as well as in the process of realisation of a piece of work. The student learns to manage a construction site in guaranteeing the advancement, the quality and safety.

2. EXPECTED SKILLS

❖ General skills

- Work independently, collaborate as a team ;
- Analysis and synthesis of professional documents (French, English) ;
- Oral, written and corporate communication skills within and without (French, English) ;
- Participate / engaged in the management of the project ;
- Know and make use of professional networks and institutions of Building sectors.

❖ Specifics skills

- Coordinate a construction site or a team of labor force in construction site ;
- Elaborate the estimates / quotes ;
- Draw setting out and architects plans, and interpret them ;
- Develop the briefings and prepare the record of works ;
- Assist the engineer in the design office or at the construction site ;
- Writing of reports on the construction site.

3. CAREER OPPORTUNITIES

- Head of construction site ;
- Foreman ;
- Draftsman ;
- Person in charge of prices ;
- Person in charge of transactions.

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 (NHD) 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 |
|---------------|--|--------------------------|
| BST111 | Mathematics 1 | 4 |
| BST112 | Physics and Chemistry 1 | 5 |
| BST113 | General construction processes | 3 |
| BST114 | Design and building Technology | 4 |
| BST115 | Sites organisation | 5 |
| BST116 | Architecture and resistance of materials 1 | 6 |
| BST117 | Bilingual Training | 3 |
| Total | | 30 |

• **SECOND SEMESTER**

| Code | Course titles | Number of credits |
|---------------|---|--------------------------|
| BST121 | Mathematics II | 4 |
| BST122 | Computer Science 1 | 5 |
| BST123 | Design office and projects | 5 |
| BST124 | Topography 1 | 3 |
| BST125 | Reinforced concrete 1 | 4 |
| BST126 | Geotechnics and resistance of materials II | 6 |
| BST127 | Creation of Company and Civic and Moral Education | 3 |
| Total | | 30 |

• **THIRD SEMESTER**

| Code | Course titles | Number of credits |
|---------------|--|--------------------------|
| BST231 | Mathematics III | 4 |
| BST232 | Physics and Chemistry II | 5 |
| BST233 | Equipment and Materials | 5 |
| BST234 | Resistance of Materials III | 3 |
| BST235 | Reinforced concrete II and Computer Assisted Drawing 1 | 6 |
| BST236 | Processes and technics of realisation | 3 |
| BST237 | Methodology of drafting internship report / LAW | 3 |
| Total | | 30 |

• **FOURTH SEMESTER**

| Code | Course titles | Number of credits |
|---------------|---|--------------------------|
| BST241 | Statistics | 4 |
| BST242 | Computer Science II | 5 |
| BST243 | Design office II and Computer Assisted Drawing II | 5 |
| BST244 | Foundations and retaining structures | 3 |
| BST245 | Topography II and tests | 4 |
| BST246 | Professional internship | 6 |
| BST247 | Accounting and Economies | 3 |
| Total | | 30 |