

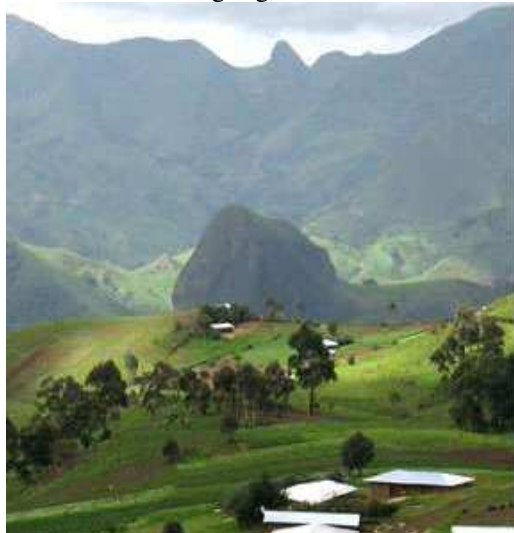


**FACULTY OF SCIENCE**  
**P.O. Box 67 ; Phone : 243 69 15 11**  
**DSCHANG - CAMEROON**

## **DEPARTMENT OF EARTH** **SCIENCE**

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The Babadjou neck  
 (Relictual structure of a trachytic neck)

### **ADMINISTRATIVE ORGANISATION**

**Head of Department:** Pr KENGNI Lucas

**Coordinator ST1 :** Dr TAMEN Jules  
**Coordinator ST2 :** Pr FOZING Eric Martial  
**Coordinator ST3 :** Pr KWEKAM Maurice  
**Coordinator Master I :** Pr NKOUATHIO David  
**Coordinator Master/ PhD :** Pr TEMATIO Paul.  
**Coordinator Master Pro :** Pr KAGOU DONGMO Armand

### **Permanent Lecturers**

Pr Kagou Dongmo Armand (P), Volcanology, Geochemistry;  
 Pr Kwékam Maurice (P), Magmatism, Structural Geology; Pr  
 Nkouathio David Guimolaire (P), Applied Volcanology,  
 Petrology; Pr Tematio Paul (P), Alterology, Metallogeny; Pr  
 Wouatong Armand (P), Alterology, Geochemistry;

Pr Fozing Eric Martial (AP), Magmatism, Structural Geology;  
 Pr Kenfack Jean Victor (AP) Geophysics, Geotechnics; Pr  
 Kengni Lucas (AP), Hydrology; Pr Ngotue (AP), Magmatism,  
 Structural Geology; Pr Njanko Théophile (AP), Magmatism,  
 Structural Geology;

Dr Manefouet Bertille Ilalie (LI), Hydrogeology-Geotechnics;  
 Dr Mbog Michel Bertrand (LI), Pedology, Metallogeny; Dr  
 Njiosseu Tanko Evine (LI), Structural Geology; Dr Njueya  
 Kopa Adoua (LI), Hydrogeology-Geotechnics; Dr Tamen  
 Jules (LI), Volcanology, Petrology; Dr Tassongwa Bernard  
 (LI), Weathering Geology; Dr Tchouatcha Milan Stafford  
 (LI), Sedimentology.

### **Visiting Lecturers**

Pr Kamgang Kabeyene (Pr), University of Yaounde I,  
 Pr Ndam Jules (Pr), University of Yaoundé I  
 Pr Ngoss III (AP), University of Yaounde I,  
 Pr Njonfang Emmanuel (Pr), University of Yaounde I,  
 Pr Yongue Fouateu Rose (Pr), University of Yaoundé I,  
 Pr Suh Emmanuel (Pr), University of Bamenda  
 Dr Ngueutchoua Gabriel (AP), University of Yaounde I

### **Temporary PhD student**

Demanou Messe Malick Roosvelt (Geotechnics), Kamgang  
 Tchuihong Agnès Blandine (Structural Geology), Kenzo  
 Tongnang Merlot Le-Sage (Hydrogeology), Nichambia  
 Djeunou Eric (Petrology – volcanology), Tiomo Idriss  
 Franklin (Metallogeny), Tsafack Boris Junior (Hydrology)

### **ACADEMIC ORGANISATION (LMD System)**

#### **A- Bachelor Degree Level**

##### **Semester 1**

(STE111) Internal Geodynamics, (STE121) Cell Biology and  
 Introduction to Microbiology, (STE131) Analysis and Algebra,  
 (STE141) General Chemistry, (STE151) Language 1 (English or  
 French), (STE161) Introduction to Environmental Sciences.

##### **Semester 2**

(STE112) External Geodynamics, (STE122) General Biology,  
 (STE132) Physics, (STE142) Elementary Statistics, (STE152)  
 Introduction to Computer Sciences, (STE162) Introduction to Applied  
 Geology.

##### **Semester 3**

(STE211) Mineralogy and Crystallography, (STE221) Structural  
 Geology, (STE231) Principles of Sedimentology and Stratigraphy,  
 (STE241) Bioclimatic Erosion Systems and Natural Risks, (STE251)  
 Language 2 (English or French), (STE261) Historical Geology.

##### **Semester 4**

(STE212) Elements of Hydrology and Hydrogeology, (STE222)  
 Cartography, (STE232) Microscopic Petrography, (STE242) Elements  
 of Geotechnics and Geophysics, (STE252) Basic Mineral Chemistry,  
 (STE262) GIS and Geologic Data Processing.

##### **Semester 5**

(STE311) Endogenous petrology, (STE321) Alteration, pedogenesis  
 and soils classification, (STE331) Language 3 (English or French),  
 (STE341) Structural analysis, (STE351) Géologie (STE361)  
 Volcanology and agro pedology

##### **Semester 6**

(STE312) Field geology of Cameroon, (STE322) Global tectonics and  
 magmatism, (STE332) Experimental petrology, (STE342)  
 Hydrogeology and applied geophysics, (STE352) Sedimentology and  
 sequence stratigraphy, (STE362) Environmental geology

#### **B- Master Level**

##### **Semester 7 : Common Core**

(STE411) Environment and Climate change, (STE421) Mapping  
 Techniques and Geomatics, (STE431) Applied Geophysics, (STE441)  
 Petrology and Geochemistry of Exogenous rocks

**Optional course :** (STE451) Geomechanics, (STE461) Petrology and  
 Geochemistry of Endogenous rocks.

**June 2022**

## Semester 8:

### Option : Hydrology and Geotechnics

(STE412) Analysis and Data Processing, (STE422) Applied Hydrology, (STE432) Fluid mechanics and Numerical methods, (STE442) Geotechnics and Materials Valorisation, (STE452) Natural Resources,

### Option: Applied Petrology and Mineral Resources

(STE412) Analysis and Data Processing, (STE462) Applied Pedology, (STE472) Metallogeny and Mineral Resources, (STE482) Petroleum Geology and Well Logging, (STE492) Tectonics

## Semester 9: Common Core

(STE511) Bibliographic and Thematic Synthesis, (STE521) Project Building and Evaluation,

### Option: Hydrology and Geotechnics

**Specialty: Geotechnics** (GEO531) Major Construction Sites, (GEO511), Geotechnical Engineering of Foundations, (GEO521) Geotechnical Tests,

**Specialty: Hydrology** (HYD521) Water Resources and Development, (HYD511) Environmental Hydrobiogeochemistry, (HYD531) Water Protection and Management,

### Option: Applied Petrology and Mineral Resources

**Specialty: Endogenous formations** (GFE511) Volcanology, (GFE521) Crustal Evolution, (GFE531) Isotope Geochemistry and Geochronology,

**Specialty: Supergene Formations** (GFS511) Elements of Landscape Dynamics, (GFS521) Sedimentology and Sedimentary Environments, (GFS531) Alterology and Sedimentary Mineral Resources,

## Semester 10:

(STE512) Dissertation

## C- Doctorate / PhD

### Semester 11: Common Core

(STE1101) General Research Methodology, (STE1102) Communication Techniques, (STE1103) Quest for Research Funding (STE1104) Data Acquisition and Modeling, (STE1105) Modern Methods of Characterization and Mapping in Earth Sciences, (STE1106) Fields of Application of Earth Sciences, (STE1107) Ph.D Seminars,

### Semester 12: Common Core

(STE1201) Experimental Design and Quantitative Data Analysis, (STE1202) Introduction to Statistical Software Languages (R, SPSS, ...), (STE1203) Methodology of Research in Earth Sciences, (STE1204) Project Implementation (STE1205) Presentation of the Thesis Proposal

### Semester 13 to 16:

Seminars and conferences, writing and defense of the thesis

## OPENING AFTER BACHELOR'S DEGREE

### 1- Entrance examination into major Institutions:

- Higher Teacher Training College (HTTC),
- Higher Teacher Training Technical Education (HTTTE),
- Faculty of Agronomy and Agricultural Sciences (FASA),
- School of Geology and Mines (EGEM),
- Polytechnic of Maroua and Bamenda,
- Schools of Public Works,
- Inter-Army, Military School (EMIA),
- Police School, ENAM,

### 2- Selection into the Master's degree program of Universities

#### a - Professional Master

- Masters in Applied Geology, Mining and Petroleum (Faculty of Science, University of Dschang)
- Master in Urban Planning Sciences of Cities and Urban Development (MASUVAT, Faculty of Science, University of Dschang)
- Master in Water Management, (FASA, University of Dschang).
- Master in Soil Science, (FASA, University of Dschang).
- Master in Environment and Forest (FASA, University of Dschang).

#### b – Master Research

- Master in Earth Sciences (Department of Earth Sciences, University of Dschang)
- Master in Geography, (FLSH, University of Dschang).

### 3- Possibility of recruitment in companies:

- High school teacher
- Consultant (Design Office)
- Prospecting Geologist
- Touristic guide

## OPENING AFTER MASTER'S AND Ph.D

### 1- Potential Structures:

- Universities (ATER position or Assistant in Geology),
- Ministry of Water and Energy,
- Ministry of Mines, Industries and Technological Development,
- Ministry of Territorial Administration (Directorate of Civil Protection),
- Ministry of Decentralization and local development,
- National Institute of Cartography (INC),
- Institute of Geological and Mining Research (IRGM),
- Institute for Agronomic Research for Development (IRAD),
- NGOs, Design Officer, Tourist Companies, etc...
- Tourist Companies, etc ...

### 2- Jobs

- Consultant
- Environmentalist
- Cartographer - Topographer
- Geophysicist
- Mining Geologist
- Geotechnician
- Hydrogeologist
- Soil Scientist
- Geochemist
- Volcanologist

- Searcher

- Lecturer

## RESEARCH AND COOPERATION

**The Department of Earth Sciences is structured in Research Units:**

### 1-Unit of Structural Petrology and Volcanology

Coordinator: Pr KWEKAM Maurice

- Petrology and structural
- Volcanology and induced risks

### 2- Unit of Geological Superficial Formations

Coordinator: Pr WOUATONG Armand

- Geology of sedimentary domains
- Geomorphology and geology of the environment

### 3- Unit of Applied Geology

Coordinator: Pr KENGNI Lucas

- Soil science and agro-geology, - Hydrology and hydrogeology, - Valorization of local materials

## AREAS OF INTERVENTION

- Implementation studies, implementation and controls of grilling and potable water supply,
- Studies of metalliferous mineralization in the granitoids of Western Cameroon Highlands,
- Typology, evaluation and prevention of natural hazards in the Western Cameroon Highlands,
- Hydrological studies and modeling of flows in the watersheds of the Western Cameroon Highlands,
- Rainfall variability and cultural seasonal variation,
- Typology and mapping of volcanic soils for better use in agronomy,
- Valorization of materials (agropedology, ceramics, geotechnic, geomedicine...)
- Vulnerability of groundwater to pollution.

## LABORATORIES IN COLLABORATION

Soil Analysis and Environmental Chemistry Laboratories (LABASCE). Laboratory of Applied Botany (LABOA), Laboratories of the Department of Earth Sciences of the University of Yaounde I, - Institute of Geological and Mining Research (IRGM) - Yaounde, - LESEAU, ENSPT Yaounde, Laboratory of Water Sciences Fac. Sci. Yaounde I, - Pastor Center Yaounde - Laboratory FUGRO, - Laboratory of Petrography and Volcanology, Paris IX, Orsay, France, - Institute of Earth Sciences of the University of Orleans, France, - Laboratory of the Federal Polytechnic School of Lausanne EPL (Switzerland), - Geochemisches Institute, Göttingen - Germany, - Laboratory of Transfer Mechanisms in Geology (LMTG-UMR). Toulouse-France, Royal Museum of Central Africa - Free University of Brussels (RMCA-ULB) - Belgium, - Laboratory of civil engineering, School of Mines -TELECOM of Douai (Lille - France), - Laboratory of Mineralogy University of Pierre et Marie Curie (Jussieu, Paris VI), France - Clays Laboratory, Geochemistry and sedimentary environment of Liege (Belgium).