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Personería Jurídica No. 192 de 1946 de Mingobieno  
Nit.: 860.013.798-5



## FREE UNIVERSITY PEREIRA SECTION

### UNDERGRADUATE PROGRAM IN ENVIRONMENTAL ENGINEERING



**SUBJECT:** **GEOLOGY AND PRACTICES**

**CODE:** -----

**SEMESTER:** **FIFTH**

**HOURS** **WEEKLY: 6**

**THEORETICAL: 4**

**PRACTICES: 2**

**REQUIREMENTS:** **STATISTICS II,**

**TOPOGRAPHY AND TOPOGRAPHY PRACTICES**

#### **GOALS.**

- Determine the characteristics, classes and behaviors of soils and rocks
- Know the principles of geochemistry that deals with species, reactions and processes in the lithosphere and its interactions with the atmosphere and hydrosphere
- Know the principles of geomorphology and its importance in relation to the behavior of water currents





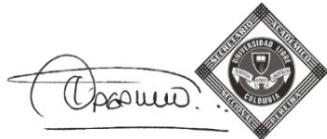
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## METHODOLOGY.

The course will be developed with master lectures by the professor on the content basics of the subject; for their part, students will strengthen their knowledge of the subject through recommended readings, consultations with the teacher and through outings field-oriented



## WORK PROGRAM.

- Minerals: structure and properties, classes of minerals, main minerals of the rocks
- The Earth's crust
- Characteristic Features: Orogenesis, geological cycle, stratification, movements cortical
- Rocks: properties and classification;
- Origin and processes of soil formation
- Soil types: transported, residual and soil profile
- Geochemistry: Definition; physical alterations; chemical alterations
- Physical factors and processes of erosion
- Soil management and conservation
- principles of fluvial geomorphology





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## LITERATURE.

GILLULY JAMES, Principles of Geology

DAPPLES EDUARD, Basic Geology for Science and Engineering

MASON BRIAN, PRINCIPLES of Geochemistry



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