



UNIVERSIDAD LIBRE®

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



FREE UNIVERSITY PEREIRA SECTION

UNDERGRADUATE PROGRAM IN ENVIRONMENTAL ENGINEERING



SUBJECT: TOPOGRAPHY AND PRACTICES

CODE: -----

SEMESTER: ROOM

HOURS WEEKLY: 6

THEORETICAL: 2

PRACTICES: 4

REQUIREMENTS: DESCRIPTIVE GEOMETRY

GOALS.

- That the student be trained in determining relative or absolute positions of points on the earth and learn field techniques and calculation methods to measure, calculate and represent correctly on a plane, planimetric and altimetrically a terrain from the dimensional point of view, of its configuration, orientation and in general its location
- That the student is able to measure and calculate volumes by the methods given in topography





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METHODOLOGY.

The course will be developed with lectures by the professor on the basic content of the subject;

For their part, students will strengthen their knowledge of the subject through

recommended readings, consultations with the teacher and the development of problems

application. For topography practices, the teacher will briefly illustrate the content and

purpose of the same and its relationship with the topic seen; then the students

They will proceed to carry out the practice and their respective report.



WORK PROGRAM.

- Planimetry

ÿ Polygonal and radiation surveys

ÿ Angular and linear compensation of a traverse; precision, calculations for the determination of areas

ÿ Altimetry

ÿ Checking a level

ÿ Physical phenomena that affect leveling

ÿ Errors and tolerances, leveling compensation

ÿ Determination of soil volumes by cross sections and prisms

ÿ Simultaneous planimetry and altimetry; determination of values





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- ÿ Determination of volumes using level planes
- ÿ Interpolation methods for contour lines
- ÿ Determination of sections of configured plans. Volumes of land by sections
- ÿ Determination of values by calculation using stay formulas and by means of abacuses
- ÿ Brief information on topography software. Software management



BIBLIOGRAPHY:

ALCANTARA G. DANTE, Topography, McGraw-Hill Publishing

ANDERSON LARNES, Introduction to Topography, McGraw-Hill Publishing

