



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: INTEGRAL SOLID WASTE MANAGEMENT TC"

CODE: -----

SEMESTER: NINTH

HOURS WEEKLY: 6

THEORETICAL: 4

PRACTICES: 2

**REQUIREMENTS: HYDRAULICS II,
ANALYSIS OF UNIT PROCESSES II**

GOALS.

That the student knows the principles that guide the strategies of the waste policy of national and international organizations and is able to articulate its knowledge to the application and development of these principles.

METHODOLOGY.





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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 professor, research and visits to the solutions proposed in the department and in the state of Táchira of the Republic of Venezuela to the problem of solid waste.



WORK PROGRAM.

- Legislation on solid waste in Colombia and Venezuela
- Origins, type and composition of urban solid waste
- Physical, chemical and biological properties of urban solid waste
- Origins, types and properties of hazardous waste found in waste urban solids.
- Solid waste generation and collection rates.
- Handling and separation, storage and processing of waste at source.
- Solid waste collection
- Separation, processing and transformation of solid waste
- Transfer and transportation
- Evacuation of solid waste and rejects
- Materials processing and separation technology
- Thermal conversion technologies





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- Biological and chemical conversion technologies
- Recycling of materials found in urban solid waste
- Closure of landfills
- Solutions for decommissioned waste disposal sites
- Diversion strategies
- Implementation of solid waste management alternatives
- Planning, location and permitting of waste management facilities



LITERATURE.

TCHOBANOGLIOUS G., THEISEN H., VIGIL S., Integrated Solid Waste Management, Edit.
McGraw-Hill

COLLAZOS H., DUQUE A., Solid waste.

