

Course Syllabus

TRANSPORT NETWORKS

Printed by: jfmoncay

Program: Telecommunications Engineering

1. Course number and name

TELG1023 - TRANSPORT NETWORKS

2. Credits and contact hours

3 credits and 3 contact hours

3. Instructor's course or coordinator's name

VERONICA ALEXANDRA SOTO VERA

4. Text book, title, author, and year

- Mr Stuart D Fordham. MPLS for Cisco Networks: A CCIE v5 guide to Multiprotocol Label Switching (Cisco CCIE Routing and Switching v5.0) (1 edition)

- a. Other supplemental materials

- Umesh Lakshman & Lancy Lobo. MPLS Configuration on Cisco IOS Software (First Edition)

- Sam Halabi. Metro Ethernet (1st)

5. Specific course information

- a. Brief description of the content of the course (catalog description)

This course describes the generalities of a transport network with a common infrastructure using data transmission technologies such as multiprotocol label switching (MPLS), metroethernet and passive optical network with gigabit capacity (GPON) for corporate and residential users. Finally, this course describes the evolution of telecommunications services and the jump to the convergence of information and communication technologies (ICT) through a high bandwidth capacity network.

- b. This course is: Selected elective

6. Specific goals for the course

- a. Specific outcomes of instruction

- 1.- To determine the elements and characteristics of the telecommunications transport networks for the end user information delivery.

- 2.- To differentiate data transmission technologies for the design of transport networks according to corporate requirements.

- 3.- To design a GPON network with end user access and fiber optic connection elements for the reliable transmission of large amounts of information.

- b. Explicitly indicate which of the student outcomes listed in Criterion 3 or any other outcomes are addressed by the course

7. Brief list of topics to be covered

- 1.- Generalities of the transport networks.



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- 2.- MPLS transport networks.
- 3.- Metroethernet networks.
- 4.- GPON networks.

