

Course Syllabus

NETWORKING SYSTEMS

Printed by: jfmoncay

Program: Telecommunications Engineering

1. Course number and name

TELG1022 - NETWORKING SYSTEMS

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, tittle, author, and year

- Marwan Al-Shawi. CCDE Study Guide (Primera Edición)

- a. Other supplemental materials

- Jim Guichard, Francois Le Faucheur, Jean-Philippe Vasseur. Definitive MPLS Network Designs (Primera Edición)

5. Specific course information

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

In this course, network systems are studied from the telecommunications service provider perspective for the traffic behavior estimation and a stable network design. In addition, the concepts of network domain or autonomous system, the main characteristics of the intra-domain and inter-domain routing protocols and the label-switching protocol are analyzed. Finally, a synthesis of the service and management policies used in the contemporary Internet network system is performed.

- b. This course is: Selected elective

6. Specific goals for the course

- a. Specific outcomes of instruction

- 1.- To analyze the characteristics of interdomain and intradomain routing protocols for the selection of parameters that allow the efficient redistribution of traffic in a service provider network.

- 2.- To determine the operation of the protocol label switching for the discrimination of the traffic of different services and clients in the service provider network.

- 3.- Estimate the behavior of traffic in the provider's network by means of management tools and application of service policies.

- 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.- Autonomous system of networks.

- 2.- Intradomain routing.



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- 3.- Interdomain routing.
- 4.- Multiprotocol Label System (MPLS).
- 5.- Management and service policies.

