

## Course Syllabus

### NEXT GENERATION NETWORKS

Printed by: jfmoncay

Program: Telecommunications Engineering

#### 1. Course number and name

TELG1024 - NEXT GENERATION 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

- Toni Janevski. NGN Architectures, Protocols and Services (1st)
  - a. Other supplemental materials
    - Jingming Li Salina & Pascal Salina. Next Generation Networks: perspectives and potentials ((1st.))
    - Sinnreich, Henry & Johnston, Alan. Internet communications using SIP: delivering VoIP and multimedia services with Session Initiation Protocol (2nd. Edition)
    - UIT - Unión Internacional de Telecomunicaciones. NGN Network Architecture ( )

#### 5. Specific course information

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

This course deals with the integration of telecommunications services through a single network using Internet Protocol (IP) technology for all kinds of information. The evolution of information and communication technology services (TIC) towards the new generation network architecture (NGN) is described. Then the protocols and architectures of an NGN network are detailed from a functional point of view, and finally the design features of a convergent network's architecture are studied.

- b. This course is: Selected elective

#### 6. Specific goals for the course

- a. Specific outcomes of instruction
  - 1.- To understand the trends of evolution in the platforms of the ICT networks towards NGN for the recognition of the fundamental changes of both networks.
  - 2.- To determine the necessary elements of each structure level for the design of an NGN architecture.
  - 3.- To schematize the architecture of new generation networks for the convergence of ICT services.
- 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



## Course Syllabus

### NEXT GENERATION NETWORKS

Printed by: jfmoncay

Program: Telecommunications Engineering

- 1.- Background of telecommunications networks
- 2.- New generation networks (NGN)
- 3.- NGN architecture
- 4.- IP multimedia system (IMS)
- 5.- Services and applications NGN