

Selected Topics in Networks

- **Course number and name:**

CC 539 – Selected Topics in Networks

- **Credits and contact hours**

Credits Hours: 3Hrs

Contact Hours: In Lecture 2Hrs, and In Tutorial 2Hrs

- **Instructor’s or course coordinator’s name**

Coordinator Name: Dr. Sherif Fadel

- **Text book, title, author, and year**

- Lecture notes and exerts from literature will be handed out to students

- **other supplemental materials**

- IEEE and ACM journal papers

- **Specific course information**

- a. **Catalog description**

Advanced topics in networking - Internet analysis - routing techniques – Wireless Networking - Mobile Networks – Sensor Networks – Content-Based Networking – Autonomic Networks - Network Optimization.

- b. **prerequisites or co-requisites**

Prerequisites: CC531

- c. **Types of Course (required, elective, or selected elective course) in the program**

Elective Course

- **Specific goals for the course**

- a. **Specific outcomes of instruction**

After the completion of this course the students will be able to:

	Course Learning Outcomes	SO
1	Understand the latest state of the art networking issues.	D,J

Topics to be covered

- Overview
- TCP/IP, IPv6 and Internet
- Wireless Networking – Setup, Security and Hotspotting
- Wireless and Mobile networks
- MANET analysis and routing
- Network Optimization
- Multimedia networking
- Networking in Cloud Computing
- Sensor Networks- Network Architecture
- Sensor Networks-Topology Control
- Data-Centric Networking
- Content-Based Networking
- Quality of Service