

Internetwork Programming

- **Course number and name:**

CC 533 – Internetwork Programming

- **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. Rowayda Sadek

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

- Forouzan, “TCP/IP Protocol Suite”, McGraw-Hill Publishing, latest edition.

- **Specific course information**

- a. Catalog description**

Internet implementation - Embedded computing systems -
Internetworking skills for design and implementation - Hardware and
embedded software internet products.

- b. prerequisites or co-requisites**

Prerequisites: CC431

- 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 various protocols & standards.	E
2	Implement network applications.	H,K
3	Design and implement hardware and embedded software internet product.	C
4	Emphasize topics of fundamental importance concerning the technology and architecture of network applications.	J

Topics to be covered

- Introduction
- TCP/IP Protocol Architecture
- Sockets programming
- Client/Servers programming paradigm
- TCP UDP Socket programming
- Internet Addressing and Subnets
- Classless Interdomain Routing
- Routing tables and Routers Architecture
- Routers Architectures and Routing protocols
- Network Protocol Analyzers
- Traffic Generation Hardware
- Linux Kernel Network Implementation
- Kernel Hacking