

<b>Course Title and Code</b>	<b>COE352 -Computer Networks Lab</b>
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**I. Course Identification and General Information:**

<b>Course Title</b>	Computer Networks Lab	<b>Course Code</b>	COE352	<b>Co-requisite</b>	COE351
<b>Department</b>	Computer Engineering	<b>Course Level</b>	8	<b>Credit Hours</b>	1 (0+1)

**II. Course Description/Topics:** The following course topics will be covered.

- Operating Systems and LAN Implementation
- Web and FTP Services
- DNS, SMTP, and POP3
- Remote Access Service
- IP Address Classes and DHCP
- IP Addresses subnetting and CIDR
- Network Protocol Analysis
- Protocol Analysis of TCP, UDP, and IP using TTCP tool
- Routing Between LANs (Design and configuration)
- Routing Between LANs: Static, RIP, and RIPv2
- WAN Connection using PPP With Performance

**III. Course Outcomes:** Summary of the main learning outcomes for students enrolled in the course.

- Construct a local area network mainly Ethernet network.
- Illustrate how to install client and server Operating Systems.
- Utilize different server roles in a local area network.
- Design Internet Protocol Addressing scheme for a subnet.
- Build and design different types of networks.
- Solve computer networks problems.
- Configure different network devices.
- Configure routers and switches for security
- Simulate lab experiments using the packet tracer.

**IV. Required Text:**

- Computer Networking: A Top-Down Approach Featuring the Internet. By James F. Kurose, Keith W. Ross. 6th edition, Addison-Wesley, 2012.
- Computer Networks Experiments sheets.

**V. References:**

- Cisco website ([www.cisco.com](http://www.cisco.com)) for technical data sheets of devices.