Computer Networks

Course # COMP 4021

Credits 6

Prerequisites and/or Corequisites: The prerequisite is Computer Architecture. Corequisites are the Internet of Things, Information Security, and System Server Administration.

Course Description

In this course, students gain a basic understanding of the way networks operate. Students learn about network components and their functions, how a network is structured, and the architectures used to create networks, including the Internet. By the end of the course, students can build simple local area networks, perform basic configurations for routers and switches, and implement IP addressing schemes. Students are encouraged to design, implement, and evaluate small-scale software projects in teams of up to three people. This course was designed according to the Cisco Certified Network Associate program 200-301.

Course Learning Outcomes

Upon the completion of the course, students will be able to:

- Define Computer Networks and basic components of a network system
- Describe soft-/hardware which makes networks efficient and secure
- Design simple local area networks
- Define the differences between protocols, software, and network architectures to select the soft-/hardware configuration
- Describe how a local area network is installed with appropriate topology and protocols in accordance with specific criteria (reliability, performance, security, budget, etc.)
- Imitate modern computer networks with Cisco Packet Tracer in the context of real-life projects and Cisco Certified Network Associate (CCNA) certification

Course Assessments and Grading

Item	**Weight**
Problem-solving sessions	39 %
Quizzes	26 %
Midterm exam	15 %
Final exam	20 %