

## APC 400: Applied Communication Networks – Course Syllabus

**IMPORTANT:** This course syllabus document contains basic information about the course. A final syllabus with detailed guidelines, instructor information, project information, rubrics, course/university policies, and other course-related information will be provided to students upon course enrollment

### Course Description and Objectives

This course covers fundamental concepts in the design, configuration, and problem solving of computer networks. Topics include: TCP/IP and OSI architecture, application layer (Web, FTP, remote connection, email, client and server interaction), transport layer (TCP/UDP), network layer (IP), data link and physical layers.

By the end of this course, you will be able to:

- Explain OSI architecture.
- Explain the layered structure of TCP/IP protocol.
- Describe common network application protocols including email, telnet, ftp, and http.
- Explain routing and network layer protocols.
- Describe the data link layer including error detection and correction, multiple access protocols, MAC addressing, Ethernet, link layer switches, and PPP.
- Describe the physical layer.

### Prerequisites

- APC 350: Programming II

### Grading

#### Evaluation Methods

Your final grade will be based on your performance on the following:

<b>Item(s)</b>	<b>Weight</b>
2 Exams	20%
Final Exam	20%
4 Programs	35%
Quizzes and Assignments	25%

### Grading Scale

The following grading scale is used to evaluate all course requirements and determine your final grade:

90–100%	A
80–89%	B
70–79%	C
60–69%	D
0–59%	F

## Workload

Students should expect to spend 144 credit hours per semester to complete the activities and assignments in this course. In a fall or spring semester, the time to dedicate per credit will range between 7-10 hours per week and in summer semester between 10-13 hours.