

EECP 3270	DATA COMMUNICATIONS	3 Credit Hours
Prerequisite	EECP 2270	
Goal	This course demonstrates how telecommunications technology supports modern data processing applications. It includes topics on system design and data communication techniques, channel characteristics and capabilities, data link protocols and computer communications architecture.	
Objectives		Outcomes
<p>This course should enable the student to :</p> <ol style="list-style-type: none"> 1. Understand the data communications environment; 2. Have a working knowledge of basic data communications components, their interfacing and internetworking; 3. Carry out the evaluation and application of computer communications architecture; 4. Understand the foundations of digital networks. 		<p>A student who completes the course should be able to:</p> <ol style="list-style-type: none"> 1. Distinguish the system design and network architecture of the different data communications systems; 2. Identify and compute channel capacity and speed; 3. Know data transmission, data encoding, data link control and multiplexing, as well as perform simple applications of these concepts; 4. Understand and distinguish between circuit and packet switching methods; 5. Differentiate various telecommunication carrier technologies; 6. Identify and describe PSTN and wideband channels, as well as digital transmission facilities; 7. Understand and implement data communications protocols and standards for physical and data link layers, and identify the architecture to which these protocols can be implemented; 8. Perform internetworking of basic data communications components; 9. Have a working knowledge of ISDN, Frame Relay, and ATM networks; 10. Identify and describe the operations of different digital networks.