

CCBC Telecommunications Certificate Program

Purpose:

The Community College of Baltimore County's (CCBC) Telecommunications Certificate program is a four-course sequence designed to prepare students to become technicians in the field of telecommunications, update their skills, and broaden their base of knowledge. The certificate provides a general background in electronics and computer systems specifically oriented to their applications in telecommunications systems. It covers data communication concepts and a wide variety of telecommunications systems.

Graduates gain skills to work with engineers and scientists in the telecommunications environment. Students may also transfer to institutions offering a Bachelor of Science degree in telecommunications technology. However, this option should not be confused with a traditional four-year engineering program which leads to a Bachelor of Science degree in engineering.

Range of Occupations:

- Cabling and wiring technician
- Engineering technician
- Field service technician
- Telecommunications technician
- Test technician

Entrance Requirements:

Students without basic computer skills should consult with the Program Coordinator before starting the certificate program.

Course Offerings:

1. CINS 101: Introduction to Computers: is a 3-credit class that explores introductory computer concepts and the impact of computers on business and society; emphasizes the application of technology. **PREREQUISITE:** (ENGL 051 or LVE 1) and (RDNG 051 or LVR 1) or consent of Program Coordinator.

2. DCOM 251: Local Area Networks: is a 4-credit class that examines data communication, including studies in Local Area Network (LAN) configurations, topologies, protocols, and Network Operating Systems (NOS). **PREREQUISITE:** Introduction to Computers (CINS 101) or consent of Program Coordinator.

3. FiOS Topics: is a 4-credit class that focuses on the core components necessary in delivering today's fiber-optic-based voice, video, and data services. Topics include: coaxial cable, fiber-optic cable, amplifiers, splitters, radio frequency, set top boxes, Digital Video Recorders (DVR), Hi-Fi equipment. Practical applications and installation is emphasized through a number of hands-on exercises. **PREREQUISITES:** Local Area Networks (DCOM 251) or consent of Program Coordinator.

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4. Fiber-Optic Communications: is a 4-credit class that introduces the basic concepts of fiber-optic communications. Topics include fiber characteristics, light theory, connectors, splicing, wave division multiplexing, opto-electronics, and practical applications in telecommunications and installation. **PREREQUISITE:** FIOS Topics or consent of Program Coordinator.