

JEFFERSON COLLEGE
COURSE SYLLABUS

CIS215
CABLING AND EQUIPMENT INSTALLATION

3 Credit Hours

Prepared by:
Chris DeGeare

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Mary Beth Ottinger, Ph.D., Division Chair, Business & Technical Education
Dena McCaffrey, Ed.D., Interim Dean, Career & Technical Education

CIS215 Cabling and Equipment Installation

I. CATALOGUE DESCRIPTION

- A. Pre-requisite: Reading Proficiency
- B. 3 Credit Hours
- C. Cabling and Equipment Installation provides knowledge of a structured cabling system at a customer site. This course includes the study of safety requirements, transmission lines, cabling, connectorization, power, TIA/EIA standards, and the use of tools and test equipment (S)

II. EXPECTED LEARNING OUTCOMES/CORRESPONDING ASSESSMENT MEASURES

Describe the operation of the primary and backup power systems found in a terminal and be able to maintain them	Discussion Quizzes Exams
Describe the basic block diagram of a switching terminal and the types of equipment found in it	Discussion Quizzes Exams
Cable and install station packages, common equipment bays, and frame blocks on the main distribution frame, and configure terminal equipment and various station packages to provide a number of types of customer service	Hands-On Lab Exercises
Differentiate between various cable color codes and connectors and be able to use cable connector tools and other tools used in telephone circuit installation	Discussion Quizzes Exams Hands-On Lab Exercises
Route cable and install station equipment at various types of customer locations and do associated wiring	Discussion Quizzes Exams Hands-On Lab Exercises
Use the “Universal Service Order Code” manual to choose and cable telecommunication connectors and their associated wiring	Discussion Quizzes Exams
Use terminal transmission test equipment and be able to align, test, and maintain station equipment	Hands-On Lab Exercises

Connectorize fiber-optic cable using ST style connectors and test the loss of installed connectors	Hands-On Lab Exercises
Describe the operation and purpose of a PBX system	Discussion Quizzes Exams

III. OUTLINE OF TOPICS

- A. Introduction and Safety
 - 1. Electrical hazards
 - 2. Types of fires
 - 3. Fire extinguishers
 - 4. Shock hazards and first aid

- B. Terminal Power
 - 1. Battery and power configuration
 - 2. Storage battery maintenance and safety
 - 3. Battery chargers and power distribution
 - 4. Uninterruptable power supply systems

- C. Terminal Equipment
 - 1. Terminal block diagrams
 - 2. Main distribution frame
 - 3. CSPB, 6wire, 400, 814, 811 bays
 - 4. Universal card system
 - 5. Power distribution bays

- D. Equipment Installation
 - 1. Cable installations
 - 2. Wire wrap connections and punch down connections
 - 3. Cable color code and amphenol connectors
 - 4. Cables, lacing, punchdown blocks and tools, and interface units
 - 5. USOC connectors and manuals
 - 6. Fiber-optic connections and cable

- E. Customer Equipment
 - 1. Types of customer equipment
 - 2. Station equipment installation
 - 3. Station plug-in modules

IV. METHOD(S) OF INSTRUCTION

- A. Lectures
- B. Audio-Visual
- C. Field Trips
- D. Demonstrations
- E. Lab

V. REQUIRED TEXTBOOK(S)

BICSI; *Information Technology Systems Installation Methods Manual*, McGraw-Hill, (Current Edition)

VI. REQUIRED MATERIALS

None

VII. SUPPLEMENTAL REFERENCES

None

VIII. METHOD OF EVALUATION

- A. Attendance & Participation 10%
- B. Lab Exercises 30%
- C. Quizzes & Exams 60%

IX. ADA AA STATEMENT

Any student requiring special accommodations should inform the instructor and the Coordinator of Disability Support Services (Technology Center 101; phone 636-481-3169).

X. ACADEMIC HONESTY STATEMENT

All students are responsible for complying with campus policies as stated in the Student Handbook (see College website, <http://www.jeffco.edu>).

XI. ATTENDANCE STATEMENT

Regular and punctual attendance is expected of all students. Any one of these four options may result in the student being removed from the class and an administrative withdrawal being processed: (1) Student fails to begin class; (2) Student ceases participation for at least two consecutive weeks; (3) Student misses 15 percent or more of the coursework; and/or (4) Student misses 15 percent or more of the course as defined by the instructor. Students earn their financial aid by regularly attending and actively participating in their coursework. If a student does not actively participate, he/she may have to return financial aid funds. Consult the College Catalog or a Student Financial Services representative for more details.

XII. OUTSIDE OF CLASS ACADEMICALLY RELATED ACTIVITIES

The U.S. Department of Education mandates that students be made aware of expectations regarding coursework to be completed outside the classroom. Students are expected to spend substantial time outside of class meetings engaging in academically related activities such as reading, studying, and completing assignments. Specifically, time spent on academically related activities outside of class combined with time spent in class meetings is expected to be a minimum of 37.5 hours over the duration of the term for each credit hour.