

**JEFFERSON COLLEGE**

**COURSE SYLLABUS**

**CIS120**

**FIBER OPTICS TECHNOLOGY**

3 Credit Hours

Prepared by:  
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Dr. Dena McCaffrey, Interim Dean, Career & Technical Education

## CIS120 Fiber Optics Technology

### I. CATALOGUE DESCRIPTION

- A. Pre-requisite and/or Co-requisite: Reading Proficiency
- B. 3 Credit Hours
- C. Fiber Optics Technology includes an introduction to fiber optics theory, a history of the development of fiber optics, and primarily focuses on the practical aspects of designing, installing, testing, and troubleshooting fiber optic systems. This course also prepares the student to take the FOA (Fiber Optics Association) certification exam. (F)

### II. EXPECTED LEARNING OUTCOMES/CORRESPONDING ASSESSMENT MEASURES

Demonstrate an understanding of system design and installation	Quizzes Lab Exercises Exams
Identify fiber optic cable types and uses	Quizzes Lab Exercises Exams
Prepare fiber optic cables	Lab Exercises
Install fan out kits	Lab Exercises
Follow applicable National Electrical Code guidelines	Quizzes Lab Exercises Exams
Install various styles of fiber optic connectors	Lab Exercises
Test fiber optic systems	Lab Exercises
Troubleshoot fiber optic systems	Lab Exercises
Clean fiber optic connectors	Lab Exercises

### III. OUTLINE OF TOPICS

- A. Basics of Fiber Optic Systems
- B. Fiber Optic Cable Types

- C. Fiber Optic Cable Preparation
- D. Fiber Optic Cable Systems
- E. National Electric Code, Art. 770
- F. Fiber Optic Connector
- G. Testing Fiber Optic Systems
- H. Troubleshooting Techniques
- I. Fiber Optic System Maintenance

IV. METHOD(S) OF INSTRUCTION

- A. Lecture
- B. Hands-On Lab Exercises

V. REQUIRED TEXTBOOK(S)

Hayes, Jim; *Fiber Optics Technician's Manual*, Thomson – Delmar Learning, Clifton park, New York, (Current Edition)

VI. REQUIRED MATERIALS

Writing Utensil and Paper

VII. SUPPLEMENTAL REFERENCES

Library Resources: Present Offerings and Anticipated Texts, Journals, Video/Audio Tapes, Software, Etc.

VIII. METHOD OF EVALUATION

- |                            |     |
|----------------------------|-----|
| A. Attendance:             | 5%  |
| B. Participation/Lab Work: | 35% |
| C. Quizzes:                | 20% |
| D. Exams:                  | 40% |

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.