MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE
COURSE OUTLINE

Faculty is required to have the outline submitted to the Academic Affairs Office. The course outline is the form used for approval of new courses by the Academic Affairs and Standards Council.

DEPT. CST COURSE NUMBER: 1400

NUMBER OF CREDITS: 2 lecture 1 lab for a total of 3 credits

COURSE TITLE: Telecommunications I

CATALOG DESCRIPTION: This course provides students with a broad overview of the telecommunications industry. Including knowledge and understanding of telecommunications history, terminology, tools, cable types, wiring components, basic fiber, coaxial cable, connector types, and basic telecommunications networks. This course prepares the student to be able to identify various types of telecommunications cable and connectors, to identify wire sequences by the telephone color code, to connect wire to various connecting devices and terminal blocks using proper methods and tools, and to use general hand tools and special tools as needed in industry.

AUDIENCE: Telecommunications Technology Students, Computer Support Technology students, Networking Specialist students and anyone interested in learning about the telecommunications industry.

FULFILLS MN TRANSFER CURRICULUM AREA(S)
Does not apply

PREREQUISITES OR NECESSARY ENTRY SKILLS/KNOWLEDGE:
STSK 0090 Reading Improvement I or test equivalent
STSK 0091 Basic Math Skills or test equivalent

LENGTH OF COURSE: 2 lecture hours and 1 lab hour per week for 16 weeks

THIS COURSE IS USUALLY OFFERED:
Every other year fall X spring summer ☐ undetermined ☐

Four goals are emphasized in course at Minnesota West Community & Technical College:

1) ACADEMIC CONTENT: The academic objectives of this course are:
   a. The student will achieve an entry level of knowledge and skill needed for telecommunications personnel

2) THINKING SKILLS: This course will help students improve the effectiveness of their thinking skills through:
   a. The student will develop logical thinking skills by mastering the telecommunications curriculum.

3) COMMUNICATIONS SKILLS: This course will help students improve their oral and written communication skills through:
   a. Completing written and oral assignments journal and documenting lab configuration.
4) HUMAN DIVERSITY: This course will help students recognize, understand, and appreciate human diversity through:
   a. The student will gain self-awareness regarding their feelings towards people of different cultures, educational backgrounds, value systems and socioeconomic status

TOPICS TO BE COVERED:
   1. The history of telecommunications
   2. Telecommunication equipment and services
   3. Transmission types - Analog and Digital
   4. Transmission systems
   5. Wireless transmission and equipment
   6. Computer networking and communication systems

LIST OF EXPECTED COURSE OUTCOMES:
   1. Describe the history of telecommunications
   2. List and describe telecommunication services
   3. Describe PSTN
   4. Explain analog and digital transmission
   5. Identify telecommunication equipment
   6. Describe the telecommunications industry: service providers and alliances, competitive forces, structure and regulation;
   7. Describe various transmission systems including TDM, the Internet, SONET, T1
   8. Describe wireless communications
   9. Explain data communications

LEARNING/TEACHING TECHNIQUES used in the course are:
   x Collaborative Learning  X Problem Solving
   x Interactive Lectures      □ Student Presentations
   □ Creative Projects       □ Individual Coaching
   X Lecture                X Films/Videos/Slides
   X Demonstrations         □ Other (describe below)
   X Lab

ASSIGNMENTS AND ASSESSMENTS FOR THIS CLASS INCLUDE:
   X Reading               X Tests                   X Individual Projects
   X Oral Presentations    X Worksheets            X Collaborative Projects
   □ Textbook Problems     □ Papers                □ Portfolio
   X Group Problems        Term Paper
   □ Other (describe below)

The information in this course outline is subject to revision

Veteran Services: Minnesota West is dedicated to assisting veterans and eligible family members in achieving their educational goals efficiently. Active duty and reserve/guard military members should advise their instructor of all regularly scheduled military appointments and duties that conflict with scheduled course requirements. Instructors will make every effort to work with the student to identify adjusted timelines. If you are a veteran, please contact the Minnesota West Veterans Service Office.

To receive reasonable accommodations for a documented disability, please contact the campus Student Services Advisor or campus Disability Coordinator as arrangements must be made in advance. In addition, students are encouraged to notify their instructor.

This document is available in alternative formats to individuals with disabilities by contacting the Student Services Advisor or by calling 800-658-2330 or
Minnesota Relay Service at 800-627-3529 or by using your preferred relay service.

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