MESABI RANGE COMMUNITY & TECHNICAL COLLEGE – VIRGINIA/EVELETH
COURSE OUTLINE

Course Title: Industrial PC Communications **Approval Date:**
Quarter Course Prefix and Number: **Revision Date: 2/22/06**
Semester Course Prefix and Number: EIAT 2245

Number of Credits: 3 **Number of Lecture Credits: 1** **Number of Lab Credits: 2**
Semester(s) Offered: **Number of Studio/Discussion Credits:**
Class Size: 24
Negotiated by AASC on
(Date)__

Course Purpose Code:

_____ **0 –** Developmental Courses
_____ **1 –** Non-Transferable General Studies
__X__ **2 –** Technical course related to career programs
_____ **3 –** College course which has the primary goal of applying certain concepts (e.g. vocal ensemble)
_____ **4 -** Other college course not considered a part of general education (MNTC) e.g. computer science, health, physical education
_____ **5 –** Course which is intended to fulfill Minnesota Transfer Curriculum (MNTC) requirements.
_____ **9 –** Continuing Education/Customized Training specialized credit course (not occurring in 0-5)

Catalog Description:
This offering is designed to provide the student with a fundamental knowledge of industrial personal computer based applications. PC based applications related to industrial controls will be studied with an emphasis on project/device documentation, data management and SCADA. Lab safety and the safe and proper use of tools and test equipment is emphasized.

Prerequisites and/or recommended entry skills/knowledge:

Course Prerequisite(s):	CSCI 1455 & ACT 2255, or instructor's consent
Reading Prerequisite:	Minimum score on basic skills test
Composition Prerequisite:	None
Mathematics Prerequisite:	Minimum score on basic skills test

Career Programs and Transfer Majors Accessing this Course:

Electrical and Industrial Automation Technology

Minnesota Transfer Curriculum Goal(s) partially met by this course if applicable:

0. __X__ None
1. _____ Communications
2. _____ Critical Thinking
3. _____ Natural Sciences
4. _____ Mathematical/Logical Reasoning
5. _____ History and the Social and Behavioral Sciences
6. _____ The Humanities and Fine Arts
7. _____ Human Diversity
8. _____ Global Perspectives
9. _____ Ethical and Civic Responsibility
10. _____ People and the Environment

Learning outcomes, including any relevant competencies listed in the Minnesota Transfer Curriculum:

Following the completion of this course the student will be able to demonstrate the ability to:

1.) Understand the current role of PCs in industrial automation.
2.) Install software.
3.) Manage data files.
4.) Use current software to document projects.
5.) Utilize current software to configure, troubleshoot and document field devices.
6.) Integrate SCADA systems with industrial control devices.
7.) Troubleshoot PC software/hardware problems.
8.) Observe proper safety procedures.
9.) Work cooperatively.
10.) Apply critical thinking skills.

Possible student assessment methods:

Lab assignments, worksheets, papers, and tests.

Use of instructional technology (includes software, interactive video and other instructional technologies):

Power Point Software, videos, software based lab simulators.

A one-paragraph summary or outline of the major course content:

See “Learning Outcomes” above.

Additional special information (special fees, directives on hazardous materials, etc.)

Laptop Computer Lease

Approvals:

Body	**Representative Signatures**	**Date**
Curriculum Committee		
Faculty Association		
Academic Affairs Standards Committee		
Chief Academic Officer		

Distribution: Original – Administrative Office
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Revised February 10, 2004