SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ON

COURSE OUTLINE

COURSE TITLE: WEIGHT AND MEASUREMENT SYSTEMS

CODE NO.: ELR681 **SEMESTER:** N/A

PROGRAM: ELECTRICAL MAINTENANCE TECHNICIAN (COMPUTER LITERACY)

AUTHOR: A. GOODERHAM

DATE: AUGUST 1997 **PREVIOUS OUTLINE DATED:** JULY 1996

APPROVED: K. DeRosario (DEAN) Sept. 2/97 (DATE)

TOTAL CREDITS: 7

PREREQUISITE(S): N/A

LENGTH OF COURSE: 8 WEEKS @ 6 HOURS PER WEEK

TOTAL CREDIT HOURS: 48 HOURS

Course Name: **Course No.:**
Measurement and Weigh Systems

I. COURSE DESCRIPTION:

This course is designed to give students an overview of Measurement and Weigh systems and exposure to specific equipment, procedures and operations. General theory covering instruments and field devices will be combined with laboratory setups and experiments so the student can gain insights into specific hardware applications, operations and troubleshooting.

II. TOPICS TO BE COVERED

1. Basic Measuring Devices and Systems
2. Basic Weigh Devices and Systems
3. Device and Instrument Setup
4. Instrument Operation

III. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

A. Learning Outcomes:

1. Understand and effectively communicate the impact of Weigh and Measuring Systems
2. Understand and duplicate the typical setup procedures for Weigh Systems
3. Troubleshoot and calibrate specific instruments (eg. CWS Model 8000)

B. Learning Outcomes with Elements of Performance:

Upon successful completion of this course the student will demonstrate the ability to:

1. Perform solder connections

Potential elements of the performance:

- Perform soldering connections on stranded wire, solid wire, pcb components and solder posts

Satisfactorily demonstrate to the instructor the above connections

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2. Work with the 525/3240 portable platform scale

Potential elements of the performance:

- Perform set-up, calibration and basic troubleshooting on the 525/3240 platform scale.

Satisfactorily demonstrate to the instructor the above operations.

3. Recall and be able to locate, specific information on instrument models 525, 8000, 4500, ASEA, LCP20 and COMPU-M

Potential Elements of the Performance:

- Recall specific application, operation, safety, calibration, set point etc. criteria for the above instrument models.

Successful completion of formal testing instruments

4. Recall and be able to locate, specific information on gauge types Gulton, Inclinometer, x-ray, IR and Safety Ray

Potential Elements of the Performance:

- Recall specific application, operation, safety, calibration, set point etc. criteria for the above gauges.

Successful completion of formal testing instruments

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

- Basic tools; strippers, wire cutters, screwdrivers, etc.

- Handouts and supplementary information will be provided by the instructor

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V. METHODS OF EVALUATION

Two formal tests @ 25% each	50%
Labs	
- platform	10%
- 4500	15%
- 8000	15%
- soldering	10%
Total	100%

The Grading System at Sault College is as follows:

A+ = 90 - 100% Consistently Outstanding Achievement
A = 80 - 89% Outstanding Achievement
B = 70 - 79% Above Average Achievement
C = 55 - 69% Average Achievement
R = <55% Repeat Course
X = Temporary, Used in exceptional circumstances when course work is incomplete (eg. Due to illness etc.)

VI. SPECIAL NOTES:

- Special Needs
  If you are a student with special needs (eg. physical limitations, visual impairments, hearing impairments, learning disabilities), you are encouraged to discuss required accommodations with the instructor and/or contact the Special Needs Office, Room E1204, Ext. 493, 717, 491 so that support services can be arranged for you.

- Your instructor reserves the right to modify the course as deemed necessary to meet the needs of the students.

- Attendance requirements are established by A.S.I. . Attendance will be taken for each class.

VII. PRIOR LEARNING ASSESSMENT

- This section is not applicable to this course.