

PELLISSIPPI STATE COMMUNITY COLLEGE
MASTER SYLLABUS

**MAINTENANCE PRINTREADING APPLICATIONS W/LAB
MET 1060**

Class Hours: 2.0

Credit Hours: 3.0

Laboratory Hours: 3.0

Revised: Fall 2010

Catalog Course Description:

Introduction to printreading in the maintenance field. The purpose of the course is to introduce specialized print reading skills needed for maintenance workers and manufacturing operations.

Entry Level Standards:

A basic understanding of arithmetic.

Prerequisites:

None

Textbook(s) and Other Course Materials:

Print Reading for Industry, Brown & Brown, Goodheart-Willcox Company, Latest Edition.

Reading Technical Diagrams: Basic Foundation Series TPC 712, 2009. Schoolcraft Publishing, Buffalo Grove, IL. (A division of Telemedia, Inc.)

I. Week/Unit/Topic Basis:

Week	Topic
1-2	Introduction Blueprint Reading Basics
3-4	Fundamentals of Shape Description
5-6	Fundamentals of Size Description and Annotations
7-8	Industrial Drawing Types Specialized Parts and Prints
9	Introduction to Technical Diagrams Symbols on Schematics
10	Electrical Symbols Electrical Wiring Diagrams
11	Piping Symbols Piping Diagrams

	Piping & Instrumentation Diagrams
12-13	Hydraulic and Pneumatic Symbols Pneumatic & Hydraulic Diagrams
14	Printreading Applications Project
15	Final Examination/Practicum

II. Course Goals*:

The course will:

- A. Expand student understanding of blueprint reading principles as applied to the production, use, and interpretation of a variety of common drawing types. (I, II)
- B. Guide students to recognize, identify, and define the various components of maintenance prints, diagrams, and schematics. (I, II, III, IV)
- C. Enhance effective reading, understanding, and interpretation of standardized symbols used on Electrical, Piping, and Pneumatic & Hydraulic Schematics and Diagrams. (I, II, III, IV)
- D. Engage and develop the student's skills, knowledge, and abilities regarding the correct identification, reading, and interpretation of mechanical drawings, along with Electrical, Piping, and Pneumatic & Hydraulic Schematics and Diagrams. (I- V)

* Roman numerals after course goals reference goals of the Engineering Technology Program

III. Expected Student Learning Outcomes*:

The student will be able to:

1. define, explain, and associate the terminology used in blueprint reading. A, B
2. interpret and explain various views and types of drawings. A
3. identify and interpret supplementary information contained on drawings. A, B
4. identify and interpret the symbols used in blueprint reading. B, C
5. trace an electrical diagram by identifying and explaining the purpose of identified components. B, C
6. trace a piping diagram by identifying and explaining the purpose of identified components. B, C
7. trace a pneumatic diagram by identifying and explaining the purpose of identified components. B, C
8. trace a hydraulic diagram by identifying and explaining the purpose of identified components. B, C
9. locate and extract needed technical information. A- C
10. associate and apply the basic principles of blueprint reading to maintenance prints and documents. A-C

11. use prints and schematics to locate maintenance problem areas. A-D
12. document technical information in a neat and orderly format. A-D
13. complete assignments based on oral and written instructions. A-D

* Capital letters after Expected Student Learning Outcomes reference the course goals listed above.

IV. Evaluation:

A. Exams: (60 Points)

Exam 1: Basic Blueprint Reading	(15 Points)
Exam 2: Advanced Print Reading	(15 Points)
Exam 3: Electrical Wiring Diagrams	(10 Points)
Exam 4: Piping Diagrams	(10 Points)
Exam 5: Pneumatic & Hydraulic Diagrams	(10 Points)

B. Laboratory: (30 Points)

Maintenance Blueprints: Problem-solving sessions, which include the use of prints, diagrams, and schematics to locate and solve problems.

C. Participation: (10 Points)

Based on instructor observation during the course, each student will be evaluated on participation activities. Evaluation parameters to include active participation in team discussions, being prepared, efficient use of lab time, striving to achieve more than minimum requirements, and regular attendance.

D. Other Evaluation Methods:

N/A

E. Grading Scale:

A	93-100
B+	88-92
B	83-87
C+	79-82
C	74-78
D	65-73
F	Below 65

V. Policies:

A. Attendance Policy:

Pellissippi State expects students to attend all scheduled instructional activities. As a minimum, students in all courses (excluding distance learning courses) must be present for at least 75 percent of their scheduled class and laboratory meetings in order to receive credit for the course. Individual departments/programs/disciplines, with the approval of the vice president of the Learning Division, may have requirements that are more stringent. In very specific circumstances, an appeal of the policy may be addressed to the head of the department in which the course was taken. If further action is warranted, the appeal may be addressed to the vice president of the Learning Division.

B. Academic Dishonesty:

Academic misconduct committed either directly or indirectly by an individual or group is subject to disciplinary action. Prohibited activities include but are not limited to the following practices:

- Cheating, including but not limited to unauthorized assistance from material, people, or devices when taking a test, quiz, or examination; writing papers or reports; solving problems; or completing academic assignments.
- Plagiarism, including but not limited to paraphrasing, summarizing, or directly quoting published or unpublished work of another person, including online or computerized services, without proper documentation of the original source.
- Purchasing or otherwise obtaining prewritten essays, research papers, or materials prepared by another person or agency that sells term papers or other academic materials to be presented as one's own work.
- Taking an exam for another student.
- Providing others with information and/or answers regarding exams, quizzes, homework or other classroom assignments unless explicitly authorized by the instructor.
- Any of the above occurring within the Web or distance learning environment.

C. Accommodations for disabilities:

Students who need accommodations because of a disability, have emergency medical information to share, or need special arrangements in case the building must be evacuated should inform the instructor immediately, privately after class or in her or his office. Students must present a current accommodation plan from a staff member in Services for Students with Disabilities (SSWD) in order to receive accommodations in this course. Services for Students with Disabilities may be contacted by going to Goins 127, 132, 134, 135, 131 or by phone: 539-7153 or TTY 694-6429. More information is available at www.pstcc.edu/departments/swd/.

D. Other Policies:

Safety and Equipment Abuse: Repeated safety violations will result in a reduction of final grade, at the instructor's discretion. Flagrant violations which result in equipment damage or personal injury will result in automatic failure of the course.