### WILLIAM RAINEY HARPER COLLEGE CAREER AND TECHNICAL PROGRAMS DIVISION

**GENERAL COURSE OUTLINE**

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| Course Prefix | Course Number | Course Title | *Contact Hours* |
| MNT | 111 | PRINTS AND SCHEMATICS | 1.1*Lecture/Demonstration*   1. *2. Lab/Studio* 2. 2 *Credit Hours* |

### Course Description

Develops understanding and skills necessary to read and interpret building blueprints including engineering site drawings. Emphasizes plan, elevation and section projection techniques. Provides experience using commercial product sketches, schematics and electrical ladder diagrams.

### Topical Outline

1. Architectural Plans
   1. Scale reading
   2. Size and location dimensions
   3. Drawing package and sheet numbering
   4. Site plans
   5. Elevations
   6. Building plan views
   7. Mechanical details and section drawings: HVAC, Electrical, Plumbing, Structure, and Masonry specifications
   8. Bill of Material
2. Reading Blueprints
   1. Identify line conventions
   2. Drawing constructions
   3. Viewing plane
   4. Interior details and dimensioning Ill. Product Sketches
3. Component diagrams
4. Rendering versus projection
5. Catalog and web site details
6. Schematics
   1. Gantt charts and critical path models
   2. Process flow diagram
   3. HVAC schematics
   4. Electrical ladder diagram
7. Applications
   1. Flat pattern layout
   2. Assembly isometrics
   3. Datums and bench marks

### Method of Presentation

1. Lecture
2. Other:
   1. Demonstrate with blueprint examples
   2. Specific schematic discussions

### Student Outcomes (The student should)

1. use various measuring systems efficiently.
2. read and understand architectural blueprints.
3. list steps in flow process from schematics diagrams.
4. read section views and indicate viewing plane location.
5. find notations and specifications regarding National Building Codes of America.

### Method of Evaluation

* 1. *Typical classroom assessment techniques*

\_Projects

\_Class participation

\_Objective tests

\_Studio/Lab performance

\_Final exam

\_Portfolios

\_Essays/Term papers

2L0ral examination

\_Research report

1. *Course content learning outcomes*

2LQuizzes

\_Group participation

\_Case study assignments

\_Homework

\_Midterm Exam

\_Exams

### Textbook

* 1. *Required*

o Brown, Walter C.. Print Reading for Industry. 2nd Edition. Goodheart-Willcox, 2002

o *Supplementary materials*

***None***

o *Software*

***None***

Prepared by: Gail Hoban Fall 2012

CID: 2267

Language on the syllabi course materials developed by INAM funds:

From the grant agreement’s Part IV  Special Conditions, Item 15, Intellectual Property Rights, the following needs to be on all products developed in whole or in part with grant funds:

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