JEFFERSON COLLEGE

COURSE SYLLABUS

MTT108

INDUSTRIAL BLUEPRINT READING

3 Credit Hours

Revised by
Michael D. McKinney
August 16, 2012

Mary Beth Ottinger, Ph.D., Division Chair, Business & Technical Education
Dena McCaffrey, Ed.D., Interim Dean, Career & Technical Education
MTT108 Industrial Blueprint Reading

I. CATALOGUE DESCRIPTION

A. Pre-requisite: Reading Proficiency

B. 3 Credit Hours

C. In this course the students will learn different types of Blue Prints and how they are used throughout the industry to relate important information between Engineering and Manufacturing. Precise measurements and tolerance specifications will be compared to precision part blueprints. (S)

II. EXPECTED LEARNING OUTCOMES / ASSESSMENT MEASURE

<table>
<thead>
<tr>
<th>Students will use vocabulary peculiar to the trade</th>
<th>In-class discussion, homework, and quizzes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students will learn different line types and there uses</td>
<td>Homework, blueprints, instructor observation, quizzes, and final exam</td>
</tr>
<tr>
<td>Students will Demonstrate the use of different size prints and paper sizes</td>
<td>Homework, blueprints, instructor observation, quizzes, and final exam</td>
</tr>
<tr>
<td>Students will construct 3-d view drawings using top, side, and bottom views to interpolate</td>
<td>Homework, Blueprints, instructor observation, quizzes, and final exam</td>
</tr>
<tr>
<td>Students will determine tolerance and dimension specifications from reading Blueprints</td>
<td>Homework, Blueprints, instructor observation, quizzes, and final exam</td>
</tr>
<tr>
<td>Students will compare accuracies of finished parts to blueprints</td>
<td>Homework, Blueprints, instructor observation, quizzes, and final exam</td>
</tr>
<tr>
<td>Students will create Bill of materials using information from Blueprint</td>
<td>Homework, Blueprints, instructor observation, quizzes, and final exam</td>
</tr>
</tbody>
</table>

III. OUTLINE OF TOPICS

A. Unit 1&2 - Bases for Blueprint Reading, Alphabet of Lines and Object Lines

B. Unit 3&4 – Hidden Lines, Center Lines, Extension Lines, and Dimension Lines
C. Unit 5&6 – Projection Lines, Other and Line Combinations. Three View Drawings

D. Unit 7&8 – Arrangement of Views, Two View Drawings

E. Unit 9&10- One View Drawings, Auxiliary Views

F. Unit 11&12- Size and Location Dimensions, Dimensioning Cylinders and Arcs

G. Unit 13&14- Size Dimensions for Holes, Location Dimensions for Points

H. Unit 15&16&17- Base Line Dimensioning, Tolerances, Unilateral & Bilateral

I. Unit 18- Interchangeable Parts, Allowances, and Class of Fit

J. Unit 19&20- External Screw Threads, Internal and Left Handed Threads

K. Unit 21&22- Tapers, Shop Notes, Metric System Dimensioning

L. Unit 23&24- Metric System Dimensioning, First Angle Projection

M. Unit 25&26- Metric Screw Threads, Cutting Planes

N. Unit 27&28- Half Sections, Partial Section, Ordinate and Tabular Dimensioning

O. Unit 29- Geometric Dimensioning and Tolerancing

P. Unit 40 to 42- Orthographic, Isometric, Oblique Sketching

IV. METHOD(S) OF INSTRUCTION

A. Lecture

B. Discussion

C. Lab

V. REQUIRED TEXTBOOK(S)

Olivio, Thomas P., and Dr. C. Thomas Olivio. Basic Blueprint Reading & Sketching. (Current Edition). Delmar, Cengage Learning
VI. REQUIRED MATERIALS

Calculator

VII. SUPPLEMENTAL REFERENCES

None

VIII. METHOD OF EVALUATION

A. Homework 40%
B. Attendance 20%
C. Final Examination 20%
D. Quizzes, Test 20%

IX. ADA AA STATEMENT

Any student requiring special accommodations should inform the instructor and the Coordinator of Disability Support Services (Library phone 636-481-3169).

X. ACADEMIC HONESTY STATEMENT

All students are responsible for complying with campus policies as stated in the Student Handbook (see College website, http://www.jeffco.edu).

XI. ATTENDANCE STATEMENT

Regular and punctual attendance is expected of all students. Any one of these four options may result in the student being removed from the class and an administrative withdrawal being processed: (1) Student fails to begin class; (2) Student ceases participation for at least two consecutive weeks; (3) Student misses 15 percent or more of the coursework; and/or (4) Student misses 15 percent or more of the course as defined by the instructor. Students earn their financial aid by regularly attending and actively participating in their coursework. If a student does not actively participate, he/she may have to return financial aid funds. Consult the College Catalog or a Student Financial Services representative for more details.

XII. OUTSIDE OF CLASS ACADEMICALLY RELATED ACTIVITIES

The U.S. Department of Education mandates that students be made aware of expectations regarding coursework to be completed outside the classroom. Students are expected to spend substantial time outside of class meetings engaging in
academically related activities such as reading, studying, and completing assignments. Specifically, time spent on academically related activities outside of class combined with time spent in class meetings is expected to be a minimum of 37.5 hours over the duration of the term for each credit hour.