COURSE OUTLINE

CONS 151 – BUILDING TRADES BLUEPRINT READING/DRAFTING

Prepared By: Stan Skowronek
A. **TITLE:** BUILDING TRADES BLUEPRINT READING/DRAFTING

B. **COURSE NUMBER:** CONS 151

C. **CREDIT HOURS:** (2)

D. **WRITING INTENSIVE COURSE:** No

E. **COURSE LENGTH:** (15 weeks)

F. **SEMESTER(S) OFFERED:** Fall

G. **HOURS OF LECTURE, LABORATORY, RECITATION, TUTORIAL, ACTIVITY:**
   1 hour lecture, 2 hours lab per week

H. **CATALOG DESCRIPTION:** Instruction includes understanding the fundamental concepts in freehand sketching and instrument drawing needed for communication in the construction industry. Orthographic projection, pictorials and perspective drawing techniques will be introduced. A variety of drawings will be studied in order to become familiar with information contained on them and how they are interpreted. CERTIFICATE/AAS ELECTIVE CREDIT ONLY. One hour lecture, two hours laboratory per week.

I. **PRE-REQUISITES/CO-REQUISITES:** None

J. **GOALS (STUDENT LEARNING OUTCOMES):**
   By the end of this course, the student will be able to:

<table>
<thead>
<tr>
<th>Course Objective</th>
<th>Institutional SLO</th>
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<tbody>
<tr>
<td>a. To develop an understanding of sketching as it relates to the building construction field</td>
<td>1. Communication</td>
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<tr>
<td>b. Utilize measurement systems for linear, area, and volumetric measurement</td>
<td>3. Prof. Competence</td>
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<td>c. Navigate building prints and understand the information on them</td>
<td>2. Critical Thinking</td>
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<td>d. Understand HVAC system prints and perform takeoffs for materials</td>
<td>3. Prof. Competence</td>
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<tr>
<td>e. Understand plumbing prints and perform takeoffs for materials</td>
<td>2. Critical Thinking</td>
</tr>
<tr>
<td>f. Navigate supplier catalogs to source components</td>
<td>3. Prof. Competence</td>
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K. **TEXT:** Brown, Dorfmueller, Print reading For Construction, 6th ed, Goodheart-Willcox

L. **REFERENCES:** N/A

M. **EQUIPMENT:** Basic sketching equipment (architectural 3 sided scale, mechanical pencil)
N. **GRADING METHOD:** (A-F)

O. **MEASUREMENT CRITERIA/METHODS:**
   - Exams
   - Homework
   - Quizzes
   - Participation

P. **DETAILED COURSE OUTLINE:**

I. Introduction
   A. Math review
   B. Measurement systems
   C. Orthographic projection
   D. Sketching

II. Architectural plans
    A. Plot plans
    B. Floor plans
    C. Elevations
    D. Details
    E. Schedules

III. Equipment plans
     A. Electrical
     B. Plumbing
     C. HVAC
     D. Material takeoffs

IV. Sourcing
   A. Takeoffs & schedules
   B. Manufacturer data
   C. Supplier resources