### Course Description

Designed to help students gain skills in blueprint reading. Covers the importance and use of blueprint reading in construction. Use of measuring tools, mathematics, lines, sketching, pictorial drawings, orthographic projection drawings, dimensioning techniques, construction materials, specifications, reading plans, and interpretation are also included.

**Course prepared by:** Diane Myazoe-deBrum  
**Prepared:** July 2010

### Hours per Week and Credits

<table>
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<tr>
<th>Hours per Week</th>
<th>Number of Weeks</th>
<th>Total Hours</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Lecture</td>
<td>3</td>
<td>16</td>
<td>48</td>
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<tr>
<td>Laboratory</td>
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<td>Clinical</td>
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<td>Seminar</td>
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Total Credit Hours: 3

### Purpose of Course:

- Degree Requirement
- Degree Elective
- General Education
- Certification: X
- Developmental
- Other

### Prerequisite(s)

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- 
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Last date reviewed or revised: October 2013

Approved by CAC 11/04/2013
I. **Blueprint Reading for Construction**

**Course Title**

**VCARP 103**

**Alpha Number**

46.0201

II. **Course Outcomes**

A. **General Learning Outcomes**

The student will:

1. Recognize architectural, mechanical, electrical, and sheet metal blueprints. (VCARP 3, 5)
2. Read and understand blueprints and make simple sketches (VCARP 3, 5)

B. **Student Learning Outcomes**

Upon completion of this course, the student will be able to:

1. Identify various types of blueprints
2. Use skills to understand blueprints and make simple sketches for projects and discussion

III. **Course Content**

Students will read and understand blueprints.

1. Types of blueprints
2. Information contained on blueprints
3. Methods of drawing objects
4. Systems of presenting numbers
5. Letterings
6. Drawing formats
7. Basic mathematics
8. Measuring devices
9. Alphabet of lines and drawing constructions
10. Reading two dimensional drawings
11. Sketching two dimensional drawings
12. Sketching three dimensional drawings
13. Architectural drawings
14. Electrical drawings
15. Pipe drawings
16. Structural drawings

IV. **Methods of Instruction**

1. Lecture
2. Discussion
3. Demonstration
4. Practical applications
5. Field trips (site observation)
6. Apprenticeship

V. **Equipment and Material**

1. Number 2 pencil
2. Architect’s scale
3. Engineer's scale
4. Protractor

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5. Drawing paper
6. Blueprints
7. TV & DVD
8. Transportation

VI. Suggested Methods of Evaluation

1. Tests
2. Quizzes
3. Homework
4. Projects

Letter grades will be assigned per CMI Grading System.