INSTRUCTOR: Peter Clark
Mobile: 713-213-3965
Email: Pjclark@uh.edu
Office Hours: By Appointment
Availability: By Appointment
Class Schedule: Tuesday 4pm – 7pm
Location: Technology Annex T1 – 116B

COURSE DESCRIPTION
This course introduces students to Industrial Construction terminology, drawings; including typical views of civil, structural, mechanical and electrical drawings, sketches and AutoCAD files.

COURSE PREREQUISITES: None

TEXTBOOK: None Required

Recommended Reading
Frederick E. Giesecke, Alva Mitchell, Henry C. Spencer. Technical Drawing Other:
- AutoCAD 2014 and AutoCAD LT 2014: No Experience Required by Jon McFarland
- AutoCAD 2014: One Step at a Time by Timothy Sean Sykes
- Beginning AutoCAD 2014 Exercise Workbook by Cheryl Shrock
- AutoCAD 2014 Tutorial - First Level: 2D Fundamentals by Randy Shih
- Revit Architecture 2014: No Experience Required by Eric Wing

Supplies:
- Architect’s scale, engineer’s scale and metric scale.
- Removable storage media, such as USB flash memory drives.
- Pencil or mechanical pencils, color pencils, paper, eraser.
- AutoCAD from http://students.autodesk.com

LEARNING OBJECTIVES
Upon the completion of the course students will demonstrate the ability to:
1. Understand terminology used on industrial drawing.
2. Draw typical views in industrial facilities.
3. Draw civil and structural related facilities.
4. Draw mechanical and electrical drawings for industrial facilities.
5. Draw freehand sketches, and manipulate computer aided drawing files.
6. Develop 3D spatial visualization skills.
7. Develop and understanding and be able to use the common geometric construction techniques when creating 2D and 3D geometric forms for the solutions to engineering problems.
8. Develop skill and proficiency in the ability to present clearly identified solutions using graphical communication conventions and standards in an engineering environment.
SCHEDULE OF TOPICS

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<tr>
<th>ID</th>
<th>Lecture Topics</th>
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<tr>
<td>1</td>
<td>Introduction to industrial terminology and drawings</td>
</tr>
<tr>
<td>2</td>
<td>Typical views including plans, elevations, sections and details</td>
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<tr>
<td>3</td>
<td>Civil drawings including contour maps, utility lines and drainage plan</td>
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<td>4</td>
<td>Structural drawings including foundations, concrete, and steel</td>
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<td>5</td>
<td>Mechanical drawings including piping isometrics, P &amp; ID</td>
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<td>6</td>
<td>Electrical drawings including one line diagram</td>
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<td>7</td>
<td>Sketching including freehand, perspectives and projections</td>
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<td>8</td>
<td>Orthographic Views</td>
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<td>9</td>
<td>Sectional Views, Auxiliary Views</td>
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<td>10</td>
<td>Dimensioning</td>
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<td>11</td>
<td>Tolerancing, Geometric Tolerances</td>
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<td>12</td>
<td>Working Drawings. CAD files manipulations, marking, and creation of as built drawings</td>
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<td>13</td>
<td>Gears, Bearings, and Cams. Threads and Fasteners</td>
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<td>14</td>
<td>Fundamentals of 3-D Drawing, Modeling</td>
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<td>15</td>
<td>Descriptive Geometry</td>
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ACADEMIC HONESTY

The instructor reserves the right to adjust letter grades, upward only, based on individual attendance and class participation if numerical grade warrants such consideration. Students who violate University rules on scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and dismissal from The University. Since dishonesty harms the individual, all students, and the integrity of The University, policies on scholastic dishonesty will be strictly enforced.

STUDENTS WITH DISABILITIES

University of Houston provides, upon request, appropriate academic adjustments for qualified students with disabilities. Any student with a documented disability (physical or cognitive) who requires academic accommodations should contact the Center for Students with Disabilities (713/743-5400) for more assistance.

EXAM POLICY

Exams will include material covered in class discussions and homework assignments. An Exam make-up will be given only in the event of a verified emergency or doctor verified sickness. The student is responsible for all reading assignments and class handouts whether or not covered in class or listed on the syllabus.

COURSE/INSTRUCTOR EVALUATION

A Start-Stop-Continue survey and a course/instructor evaluation will be conducted at the middle and the end of this semester. Any suggestions you have on improving the course, however, are welcome throughout the semester. For detailed information about Disabilities, Religious Holy Days, the Academic Calendar, and Academic Honesty, and other information, please visit the following website: http://www.uh.edu/provost/stu/stu_syllabsuppl.html