

# Design 203 Drawing Systems for Designers

3 Credit Hours

Department of Industrial, Interior and Visual Communication Design

**Course Details** Instructor:  
Quarter:  
Time:

**Instructor Contact** Office:  
Office Hours:  
Email: Phone:

**Course Description** Introduction to technical drawing as a skill to communicate precise characteristics of a subject represented as it pertains to Industrial, Interior and Visual Communication Design. Emphasis will be placed on measured drawings as a tool to communicate precise information about man-made subjects.

**Objective** To develop and understanding of precise graphic language in the context of Product, Interior and Visual Communication Design as it pertains to two different scales: the object and the building environment.

**Context** This course is the third of three design communication courses. Introduction to measured drawings, orthographic, sections, dimensions and paraline drawings focusing on the different needs of interior space designers, product designers and visual communication designers required in order to communicate with various professionals in fields such as building construction, manufacturing, exhibits, environmental graphics, engineering and architecture.

**Format** This is a progress-oriented course that requires active student participation. The class will meet 3 days per week for 2 hours each day. Class sessions will be comprised of lectures, demonstrations, and assignments. An equal balance between theory and application is expected. Students will be expected to provide their own drawing materials.

**Learning Outcomes** Students will learn drawing conventions understood and accepted by others in order to convey specific information. They will develop skills in communicating through clear and precise drawings, and understanding the characteristics, techniques and conventions in Engineering, manufacturing and Architectural contexts.

**Course Content** Representational techniques  
Relationships between Engineering and Architectural graphic systems

Projection Systems:

Orthographic projections  
Sections  
Details  
Dimensional drawings  
Axonometric Projections- isometric  
Oblique projections-Elevation and plan oblique  
Composition and presentation techniques for product, for the built environment

**Texts**

Required: Ching, Francis. *Design Drawing* Van Nostrand Reinhold, New York, 1998  
Recommended: Ching, Francis. *Architectural Graphics*, Van Nostrand Reinhold, New York, 2003  
Recommended: Giesecke, et al, *Technical Drawing*, Prentice Hall, 2003

**Materials:**

Mechanical pencils HB, H series lead  
30-60 and 45 degree triangles  
Erasers, eraser shield  
Quality compass

**Requirements**

The following are expected of all students in the course:

- Attendance is mandatory. Any unexcused absences may result in a lowering of your grade. Contact the instructor if you will be late or absent (contact information is found above).
- Students will be expected to come to class prepared, work diligently, and do their absolute best in all projects and presentations.
- Class participation in critiques and final presentations is essential.
- All work must be completed by the scheduled due date

**Grading**

Students grades will be based on the following factors:

- Craftsmanship- Accuracy
- Commitment and effort
- Class work and participation

There will be two drawing assignments every week, each worth 10 points; the midterm is worth 100 points; the final drawing assignment is worth 140 points; active participation in critiques is worth a total of 50 points. Grade distribution is as follows:

415-450 – A;	400-414 – A-	
380-399 – B+;	365-379 – B;	355-364 – B-
340-354 – C+ ;	320-339 – C;	310-320 – C-
290-309 – D+;	270-289 – D	
Less than 270 - E		

Assignments turned in late without instructor's previous permission will not be accepted. The final grade will be a product of the mean value of the individual assignments in addition to the instructor's assessment of work, craftsmanship, quality, progress and commitment. Any absences not called in will be considered unexcused.

Assignments turned late without instructor's previous permission will not be accepted. The final grade will be a product of the mean value of the individual assignments in addition to the instructor's assessment of work, craftsmanship, quality, progress and commitment. Any absences not called in will be considered unexcused.

**Special needs** If you need accommodation based on the impact of a disability you should contact the Office for Disability Services for assistance in verifying the need for accommodation and developing accommodation strategies. You are encouraged to contact them directly at 614-292-6207, 292-0901TDD or email: [ada-osu@osu.edu](mailto:ada-osu@osu.edu) and notify the instructor.

**Academic Misconduct** Academic Misconduct is defined as “any activity which tends to compromise the academic integrity of the institution, or subvert the educational process.” Please refer to rule 3335-31-02 in the student code of conduct for examples of academic misconduct. Any cases of academic misconduct will be referred to the Committee on Academic Misconduct (see <http://oaa.osu.edu/coam/home.html>)

**Escorts** Escort services for evening courses are available by calling 292-3322

**Course Schedule** Week 1 and Week 2  
Drawing Systems  
Scales, tools and geometric construction, vocabulary-Engineering vs. Architectural graphics  
Mutiview drawings-The six views vs. necessary views  
*Readings:* Ching: Chapter 5 and 6, pages 113-134, Technical drawing  
Chapter 4-Geometric Constructions  
*Drawing assignment 1:* Geometric Constructions with compass and ruler  
*Drawing assignments 2, 3 and 4:* Multi-view drawing exercises

Week 3 and 4  
Drawing tools and materials, Dimensions and scale  
Lines and line quality and conventions, hidden lines  
Engineering Graphics vs. Architectural Graphics  
*Readings:* Ching: Chapter 5, pages 135-153 , Technical drawing

Chapter 11, pp292- 328

*Drawing assignment 5:* Dimensioned Multi-view drawings of a chair

*Drawing assignment 6:* Dimensioned Plan view of a floor plan

*Drawing assignment 7:* Dimensioned Multi-view drawings of a small product, utilize appropriate line weight hierarchy to discriminate between object, center, hidden and construction/projection. Include arcs, holes, angles, curves, contours

*Drawing assignment 8:* Dimensioned Plan view of a floor plan, detailing doors, windows, walls. Utilize a hierarchy of lines to convey depth

Week 5

Sections- Building sections, object sections; Auxiliary views

*Readings:* Ching: Chapter 5, pages 154-163, Technical drawing  
Chapter 7, pp 200- 204

*Drawing assignment 9:* section drawing of a stapler

*Drawing assignment 10:* section drawing of a two-level building in context

**Midterm Exam**

Week 6 and 7

Axonometric views-Isometric, isometric sections, ellipses and curves

*Readings:* Ching: Chapter 7, pages 173-184, Technical drawing  
Chapter 16, pp 493- 522

*Drawing assignments 11 and 12:* Isometric views of an object, full and half section, exploded view

*Drawing assignments 13 and 14:* Isometric view of building, cutaway and phantom views

Week 8

Plan and Elevation Oblique, sections, and expanded views

*Readings:* Ching: Chapter 7, pages 185-195, Technical drawing  
Chapter 17, pp 530- 539

*Drawing assignment 15:* Elevation oblique of an object an interior space

*Drawing assignment 16:* Plan oblique, expanded view of a small building

Week 9

Presentation Drawings

*Readings:* Ching: Chapter 12, pages 324-336

*Final Drawing assignment:* Students make a choice between a built environment or hand-held product. The assignment requires communication of all information regarding form, size, dimensions, mechanisms or construction details, through a series of technical drawings. The viewer needs to clearly understand what the object/space is, its function and parts. The student will make appropriate choices between projections and sections, exploded/expanded views.

Week 10

**Final Drawing assignment**

Week 11

**Final Drawing assignment due**