

# Architectural Graphics 1

## Course Outcome Summary

### Course Information

Organization	Madison Area Technical College
Developers	Richard Wandschneider
Development Date	4/1/2005
Course Number	10-614-111
Instructional Level	Associate Degree
Potential Hours of Instruction	54
Total Credits	3

### Description

Emphasizes architectural drafting and the theory of drafting. Proper architectural lettering, line work and use of drafting tools are discussed. Orthographic projector, isometric, axonometric perspective drawings, contours, shade and shadow are covered in the first semester. Massing studies using the software "Sketch up" is also incorporated.

### Target Population

Program students

### Types of Instruction

Instruction Type	Contact Hours	Credits
Classroom Presentation	54	3

### Textbooks

Ching, Francis D.K.. *Architectural Graphics*. Wiley & Sons Publishers, Inc.. **Edition:** 3rd.

### Learner Supplies

Drafting Kit. **Source:** MATC Bookstore.

### Exit Learning Outcomes

#### Core Abilities

- A. Critical thinking
- B. Science and Technology
- C. Self-management

### Competencies

- A. **Demonstrate proper linework**

#### Linked Core Abilities

- Critical thinking
- Science and Technology

Self-management

**You will demonstrate your competence:**

A.1. by submitting completed line drawings

**Your performance will be successful when:**

A.1. line drawings include objects of correct size

A.2. line drawings include objects of correct dimensions

A.3. line drawings include lines in the proper location

A.4. line drawing includes properly spelled lettering

**B. Draw geometric constructions of plane figures**

**Linked Core Abilities**

Critical thinking

Science and Technology

Self-management

**You will demonstrate your competence:**

B.1. by submitting completed drawings

**Your performance will be successful when:**

B.1. drawings include appropriate line weights

B.2. drawings include appropriate line types

B.3. drawings include lines divided into equal increments

B.4. drawings include arcs tangent to straight lines (if required)

B.5. drawings include proper spelling and lettering

B.6. drawings include correct dimensions

B.7. drawings are titled

B.8. drawings include proper spelling and lettering

B.9. drawings are accurate

**C. Draw orthographic views of an object**

**Linked Core Abilities**

Critical thinking

Science and Technology

Self-management

**You will demonstrate your competence:**

C.1. by submitting completed drawings

**Your performance will be successful when:**

C.1. drawings include a minimum of three views of an object

C.2. drawings include appropriate line weights

C.3. drawings include appropriate line types

C.4. drawings include appropriate symbols

C.5. drawings include correct dimensions

C.6. drawings include proper spelling and lettering

C.7. drawings are accurate

C.8. drawings are titled

**D. Draw pictorial views of an object**

**Linked Core Abilities**

Critical thinking

Science and Technology

Self-management

**You will demonstrate your competence:**

C.1. by submitting a completed three dimensional drawings of objects

**Your performance will be successful when:**

D.1. drawings include a three dimensional view of an object

D.2. drawings include appropriate line weights

D.3. drawings include appropriate line types

D.4. drawings include appropriate symbols

D.5. drawings include correct dimensions

D.6. drawings include proper spelling and lettering

D.7. drawings are accurate

D.8. drawings are titled

**E. Draw orthographic views of an object using orthographic projection**

**Linked Core Abilities**

Critical thinking

Science and Technology

Self-management

**You will demonstrate your competence:**

E.1. by submitting completed drawings

**Your performance will be successful when:**

E.1. drawings include the missing view of an object

E.2. drawings include appropriate line weights

E.3. drawings include appropriate line types

E.4. drawings include appropriate symbols

E.5. drawings include correct dimensions

E.6. drawings include proper spelling and lettering

E.7. drawings are accurate

E.8. drawings are titled

**F. Draw auxiliary views and auxiliary elevations from orthographic views of an object**

**Linked Core Abilities**

Critical thinking

Science and Technology

Self-management

**You will demonstrate your competence:**

F.1. by submitting completed drawings

**Your performance will be successful when:**

F.1. drawings include auxiliary views and auxiliary elevations from orthographic views of an object

F.2. drawings include appropriate line weights

F.3. drawings include appropriate line types

F.4. drawings include appropriate symbols

F.5. drawings include correct dimensions

F.6. drawings include proper spelling and lettering

F.7. drawings are accurate

F.8. drawings are titled

**G. Complete wall sections for a residential building**

**Linked Core Abilities**

Critical thinking

Science and Technology

Self-management

**You will demonstrate your competence:**

G.1. by submitting completed drawings of wall sections of a residential building

**Your performance will be successful when:**

D.1. wall sections include appropriate line weights

D.2. wall sections include appropriate line types

D.3. wall sections include appropriate symbols

D.4. wall sections include correct dimensions

D.5. wall sections are titled

D.6. wall sections are accurate

**H. Complete exterior elevations for a residential building**

**Linked Core Abilities**

Critical thinking

Science and Technology

Self-management

**You will demonstrate your competence:**

E.1. by submitting the drawings of completed exterior elevations

**Your performance will be successful when:**

E.1. exterior elevations include appropriate line weights

E.2. exterior elevations include appropriate line types

E.3. exterior elevations include appropriate symbols

E.4. exterior elevations include correct dimensions

E.5. exterior elevations are titled

E.6. exterior elevations are accurate

E.7. exterior elevations includes exterior finish materials

**I. Draw land contours**

**Linked Core Abilities**

Critical thinking

Science and Technology

Self-management

**You will demonstrate your competence:**

F.1. by submitting drawings of land contours

**Your performance will be successful when:**

I.1. drawings include appropriate line types

I.2. drawings include appropriate line weights

I.3. drawings include appropriate line types

I.4. drawings include appropriate symbols

I.5. drawings include correct dimensions

- I.6. drawing is titled
- I.7. drawing is accurate

**J. Graphically represent the intersection of surfaces**

**Linked Core Abilities**

- Critical thinking
- Science and Technology
- Self-management

**You will demonstrate your competence:**

- J.1. by submitting completed drawings of the intersection of surfaces

**Your performance will be successful when:**

- G.1. drawings include appropriate line weights
- G.2. drawings include appropriate line types
- G.3. drawings include appropriate symbols
- G.4. drawings include correct dimensions
- G.5. drawings are titled
- G.6. drawings are accurate

**K. Draw shades and shadows of building elements**

**Linked Core Abilities**

- Critical thinking
- Science and Technology
- Self-management

**You will demonstrate your competence:**

- K.1. by submitting completed drawings

**Your performance will be successful when:**

- K.1. drawings include appropriate shading of building elements
- K.2. drawings include appropriate shadowing of building elements
- K.3. drawings include appropriate line weights
- K.4. drawings include appropriate line types
- K.5. drawings include appropriate symbols
- K.6. drawings include correct dimensions
- K.7. drawings are titled
- K.8. drawings are accurate

**L. Draw both one and two point perspectives**

**Linked Core Abilities**

- Critical thinking
- Science and Technology
- Self-management

**You will demonstrate your competence:**

- L.1. by submitting completed drawings

**Your performance will be successful when:**

- L.1. drawings include one and two point perspectives
- L.2. drawings include appropriate line weights
- L.3. drawings include appropriate line types
- L.4. drawings include appropriate symbols

- L.5. drawings include correct dimensions
- L.6. drawings are titled
- L.7. drawings are accurate

**M. Explore basic construction materials including their sizes and uses**

**Linked Core Abilities**

- Critical thinking
- Science and Technology
- Self-management

**You will demonstrate your competence:**

- M.1. by submitting a drawing of an eave detail of a wall section for a house
- M.2. on a written evaluation with a minimum score of 75%

**Your performance will be successful when:**

- M.1. drawing includes proper location of the framing members for an energy heal
- M.2. drawing includes appropriate line weights
- M.3. drawing includes appropriate line types
- M.4. drawing includes appropriate symbols
- M.5. drawing includes correct dimensions
- M.6. drawing includes proper spelling and lettering
- M.7. drawing is accurate
- M.8. drawing is titled
- M.9. you examine construction materials required
- M.10. you examine the sizes of the required construction materials

**N. Examine wood frame construction**

**Linked Core Abilities**

- Critical thinking
- Science and Technology
- Self-management

**You will demonstrate your competence:**

- N.1. by submitting a drawing of a wall section for a house
- N.2. on a written evaluation with a minimum score of 75%

**Your performance will be successful when:**

- N.1. drawing includes proper location of the framing members for a complete wall section
- N.2. drawing includes appropriate line weights
- N.3. drawing includes appropriate line types
- N.4. drawing includes appropriate symbols
- N.5. drawing includes correct dimensions
- N.6. drawing includes proper spelling and lettering
- N.7. drawing is accurate
- N.8. drawing is titled
- N.9. you examine construction materials required
- N.10. you examine the sizes of the required construction materials
- N.11. you examine the size relationship between brick and concrete block