

# **ARCHITECTURAL TECHNOLOGY ASSESSMENT SUMMARY 2002/2003**

## **I. Department Mission Statement**

The Architectural Technology Program is a learner- centered program which prepares students for entry level career positions in architectural support fields. The Architectural Technology Program is committed to incorporating effective learning techniques, diverse instructional resources, and learning outcome assessment on an ongoing basis.

## **II. Intended Outcomes for Program**

- A. Demonstrate the ability to create residential construction system drawings.
- B. Demonstrate the ability to create commercial construction system drawings.
- C. Demonstrate the ability to organize a set of construction documents.

## **III. Outcome Assessed During 2002/2003 Academic Year**

Demonstrate the ability to create residential construction system drawings.  
Measured by the ability to draw a wood frame wall detail.

## **IV. Benchmarks**

- A. Completeness of the detail
  - Six members are required to denote a wood frame wall:
    1. top plates (2)
    2. wall studs
    3. sole plate
    4. exterior sheathing
    5. exterior siding
    6. interior drywall
- B. Correct dimensions of each drawn member.
- C. Correct notation of each drawn member.
- D. Correct material symbols used.

## **V. Performance Levels**

- A. Completeness of Detail
  - Beginning level = 0-2 of 6 members drawn
  - Developing level = 3-4 of 6 members drawn
  - Mastery = 5-6 of 6 members drawn
- B. Correct Dimensions
  - Beginning level = 0-2 members drawn with correct dimensions
  - Developing level = 3-4 members drawn with correct dimensions

Mastery = 5-6 members drawn with correct dimensions

#### C. Correct Notation

Beginning level = 0-2 members noted correctly

Developing level = 3-4 members noted correctly

Mastery = 5-6 members noted correctly

#### D. Correct Material Symbols

Beginning level = 0-2 members drawn with correct material symbols

Developing level = 3-4 members drawn with correct material symbols

Mastery = 5-6 members drawn with correct material symbols

### **VI. Assessment Method**

The assessment was performed in the ARC 111 Introduction to Architectural Drawing class during spring semester, 2003. It was initiated after students were familiar with the use of drafting instruments and architectural line conventions. The students were not given any technical instruction in wall framing.

After completing the Learning Unit on Residential Wall Framing, the same assessment was again given to the students.

Seventeen students (one class section) participated in the assessment.

Each student was supplied with an 8 ½" x 11" sheet of drafting vellum and given the following instructions:

#### **Instructions to Students**

This assessment is for data collection only. You are not to put your name or include any marks on the drawing that will identify you.

On the drafting vellum, you are to draw a wood frame residential wall section detail using the following specifications:

Scale: 1" = 1'-0"

Include the following members (given in random order):

Top plates

Drywall

Sheathing

Sole Plate

Studs

Siding

Use correct architectural linetypes, symbols, dimensions, and material symbols to show each member.

You may not use the course textbook or any other reference source to draw this detail.

The time limit for drawing the detail is 1 ½ hour.

## VII. Results of the Assessment

Results Prior to Completing the Residential Wall Framing Learning Unit:

<b>Benchmark</b>	<b>Beginning Level</b>	<b>Developing Level</b>	<b>Mastery</b>
	<b>No. / %</b>	<b>No. / %</b>	<b>No. / %</b>
A. Completeness	3 / 18%	9 / 53%	5 / 29%
B. Correctness	12 / 71%	5 / 29%	0 / 0%
C. Notation	17 / 100%	0 / 0%	0 / 0%
D. Symbols	10 / 59%	4 / 24%	3 / 17%

Results After Completing the Residential Wall Framing Learning Unit:

<b>Benchmark</b>	<b>Beginning Level</b>	<b>Developing Level</b>	<b>Mastery</b>
	<b>No. / %</b>	<b>No. / %</b>	<b>No. / %</b>
A. Completeness	0 / 0%	2 / 12%	15 / 88%
B. Correctness	1 / 5%	4 / 23%	12 / 72%
C. Notation	4 / 23%	9 / 53%	4 / 23%
D. Symbols	1 / 5%	4 / 23%	12 / 72%

## VIII. Use of Results

A. The Residential Wall Framing Learning Unit appears to be successful. The majority of students were able to move from a beginning to a mastery of the ability to draw a wood frame wall detail.

B. Sharing this Information

This information will be shared with the chairs of both the Architectural Technology and the Construction Supervision Advisory Committees. It will also be shared with adjunct faculty members as our department expands the formal assessment data gathering process.

C. Changes Based on Results

It appears that the weakest area is in the notation of the detail drawings. As a result of this assessment, there will be a greater emphasis on notation when this

unit is taught. We may look at a separate assessment for notation if we find similar results after several cycles of assessment.