

**COURSE ASSESSMENT REPORT**

**I. Background Information**

1. Course assessed:  
 Course Discipline Code and Number: HVA 102  
 Course Title: HVAC Sheet Metal fabrication  
 Division/Department Codes: VCT/ WAF
  
2. Semester assessment was conducted (check one):  
 Fall 2008  
 Winter 20\_\_  
 Spring/Summer 20\_\_
  
3. Assessment tool(s) used: check all that apply.  
 Portfolio  
 Standardized test  
 Other external certification/licensure exam (specify):  
 Survey  
 Prompt  
 Departmental exam  
 Capstone experience (specify):  
 Other (specify):
  
4. Have these tools been used before?  
 Yes  
 No

If yes, have the tools been altered since its last administration? If so, briefly describe changes made.

5. Indicate the number of students assessed/total number of students enrolled in the course.  
 12/16
  
6. Describe how students were selected for the assessment.  
 All students in all sections who took the final.

**II. Results**

1. Briefly describe the changes that were implemented in the course as a result of the previous assessment.  
 None
  
2. List each outcome that was assessed for this report exactly as it is stated on the course master syllabus.
  - a. Identify the use of commonly used sheet metal tools and equipment-Assessed by multiple choice test.
  - b. Apply the appropriate use of tools and machinery, safety precautions and practices, while working with sheet metal- assessed by skills assessment.
  - c. Manipulate HVAC ductwork pictorial drawings to create logical mechanical drawings, and transfer them to sheet metal stock- assessed by skills assessment.
  - d. Construct residential HVAC ductwork using correct equipment, methods, and safety practices within 1/8" tolerances- assessed by skills assessment.
  - e. Determine the correct sheet metal fasteners and connectors to use in the installation and fabrication of sheet metal ductwork-Assessed by multiple choice test.

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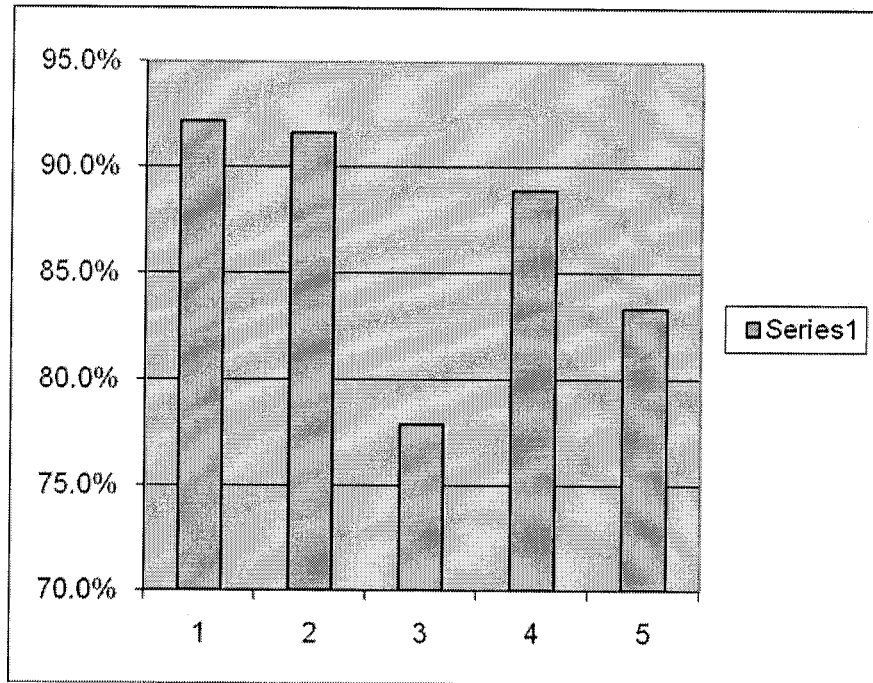
- Briefly describe assessment results based on data collected during the course assessment, demonstrating the extent to which students are achieving each of the learning outcomes listed above. *Please attach a summary of the data collected.*

Outcomes 2, 3 and 4 were written as practical outcomes to be reviewed using skill assessment. Once in the classroom it became obvious that there were not enough workstations to perform a practical skill assessment for each student separately (without being able to look at another student's work). Instead, it was decided to include final exam test questions to be used to evaluate these outcomes. The skill activity is an important part of the learning process and continues to be a critical element in the class. However, the assessment of an individual is difficult within this classroom environment.

Outcomes #1 and #5 were appropriately assessed by using the final exam. Outcome #2, 3 and 4 were also assessed by using the final exam instead of the skills assessment..

**Percent of Correct Answers**

	Outcome #1	Outcome #2	Outcome #3	Outcome #4	Outcome #5
Average					
Summary	92.2%	91.7%	77.9%	88.9%	83.3%



The collection of the data yielded an analysis as a percentage of questions answered correctly. These results are shown in the chart above. The data shows that over 70% of the questions for each outcome were answered correctly.

- For each outcome assessed, indicate the standard of success used, and the percentage of students who achieved that level of success. *Please attach the rubric/scoring guide used for the assessment.*

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The standard of success identified in the syllabus said "70% of the students will achieve an overall average of 70% or higher on outcome questions." We did not collect the data in a form to allow this specific analysis. I feel that the analysis of the data did say that the students were able to achieve an overall 70% competency.

Because the assessment of Outcomes 2, 3, and 4 were not able to be assessed in the manner originally intended; I did the assessment based upon test questions specifically included in the final to cover these outcomes.

5. Describe the areas of strength and weakness in students' achievement of the learning outcomes shown in assessment results.

Strengths: The students did extremely well on outcomes 1, 2, and 4.

Weaknesses:

- 1) Skill assessment is not a good application in this setting. Therefore, the outcomes and assessment methods need to be rewritten in order to reflect a viable assessment method.
- 2) The assessment results for Outcome #3 are the lowest of the five areas.
- 3) The data collection procedure did not fit with the standard of success.

**III. Changes influenced by assessment results**

1. If weaknesses were found (see above) or students did not meet expectations, describe the action that will be taken to address these weaknesses.

- o Skill assessment is not a good application in this setting. Therefore, the outcomes and assessment methods need to be rewritten in order to reflect a viable assessment method.
- o In outcome #3, I will review the questions and determine if the questions were valid. If we determine that the questions are valid, we will consider if the instruction needs to be changed.
- o The standard of success or the data collection method will be revised on the next version of the master syllabus.

2. Identify intended changes that will be instituted based on results of this assessment activity (check all that apply). Please describe changes and give rationale for change.

- a.  Outcomes/Assessments on the Master Syllabus

Change/rationale: The outcomes and assessment methods for 2, 3 and 4 will be revised. The standard of success or the data collection method will be revised on the next version of the master syllabus.

- b.  Objectives/Evaluation on the Master Syllabus

Change/rationale:

- c.  Course pre-requisites on the Master Syllabus

Change/rationale:

- d.  1<sup>st</sup> Day Handouts

Change/rationale:

- e.  Course assignments

Change/rationale: Based on the relatively poor performance on outcome 3 we will add assignments for homework to have the students layout certain fittings, and after approval by the instructor, the student will then transfer the layout to the sheet metal.

- f.  Course materials (check all that apply)

Textbook

Handouts

Other:

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g.  Instructional methods  
Change/rationale: Increase student homework.

h.  Individual lessons & activities  
Change/rationale:

3. What is the timeline for implementing these actions? Winter 2009

IV. Future plans

1. Describe the extent to which the assessment tools used were effective in measuring student achievement of learning outcomes for this course.

The assessment completed did allow analysis of the results and afforded the instructors knowledge of changes to be implemented. The students did learn the intended outcomes, and also information was evident as to course changes the instructors will implement.

2. If the assessment tools were not effective, describe the changes that will be made for future assessments.

3. Which outcomes from the master syllabus have been addressed in this report?

All  Selected

If "All", provide the report date for the next full review: Fall 2011

If "Selected", provide the report date for remaining outcomes: \_\_\_\_\_

Submitted by:

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Faculty/Preparer

Signature

Date:

January 8, 2009

Print: Wm Figg  
Department Chair

Signature

Date:

January 20, 2009

Print: Bruce Greene  
Dean/Administrator

Signature

Date:

Jan 20, 09

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