

# Annual Report for Assessment of Outcomes 2012-2013

*Submitted: June 18, 2013*

SAC: [ACR](#)/Auto Collision Repair Technology

Contact person: George Warneke

CTE Outcomes Assessed: AAS Degree & ACR 2 Year Certificate

1. Describe changes that have been implemented towards improving students' attainment of outcomes that resulted from recent outcome assessments. These may include but are not limited to changes to content, materials, instruction, pedagogy etc. Please be sure to **describe the connection** between the assessment results and the changes made.

## Improvement to Teaching and ACR Program

Self-Reflection outcomes as a category: Scores from our 2010-2011 assessment indicated a lack of communicating self-reflection in the written form. Scores from our 2011-2012 assessment indicated substantial improvements in the Self-Reflection outcomes, well above the base line minimum acceptable scores. Scores from our 2012-2013 assessment provided us with a trend of maintaining the substantial improvements in the Self-Reflection outcome areas. **(see the ACR Learning/Technical Skills Assessment Spreadsheets for 2010-2011, 2011-2012, 2012-2013)**

Our program does not have a minimum requirements, including writing requirements for entry into the program. Our SAC does not want to limit accessibility to our program with minimum requirements and prerequisites. Our imbedded related instruction seems to work for our program, even though we encourage all students to strive for the AAS degree in Auto Collision Repair Technology.

Students write 10 to 12 one page summaries of technical articles that they are required to read during the course of the 2 year program. They are also required to write 8 weeks of journal entries during the Cooperative Education work experience. We had been lacking on setting the expectations for the conclusion paragraph that is part of the technical article summaries and showing examples and expectations for the weekly Co-op journal entries.

Our SAC implemented the following strategies to help students develop this ability:

- Sharing with students acceptable conclusion paragraph examples that highlight self-reflection.
- Having exceptional student article summaries read aloud in class to reinforce the self-reflection aspect of a conclusion paragraph.
- Giving all Co-op students a hand-out that explains what is expected to be included in the 8 weekly Co-op journal entries and a sample journal entry **(see AB280B Cooperative Education – Seminar hand-out)**.

Learning/Technical Skills outcomes for individual students: Scores from our 2010-2011 assessment indicated that 3 students had a total average individual scores that was right at or below our set goal of 2.0 **(see ACR Learning/Technical Skills Assessment Spreadsheet 2010-2011)**

Some students have language barriers that may be a contributing factor. It can be difficult for them to understand technical terms, processes, and skills. Reading and writing may be a struggle also. Results from the assessment tools reveal that, although overall we are meeting and exceeding the needs of most of these types of students, we can do better to assist a few individual students that have language barriers.

Our SAC implemented the following strategies to help these students overcome these barriers:

- Being more in tune to the needs of students with language barriers.
- Try to identify those types of students early in the first term in the program.
- Strongly encourage them to get the assistance of our Technical Learning Skills Specialist.
- Encourage them to take ESOL classes.

Our SAC has implemented the use of the new scoring rubric for most ACR course hands-on projects, activities, and skills. This allows us to have consistent assessment throughout our entire program.

# AB 280B Cooperative Education – Seminar Hand-out

## 2 Credit Hours pass/no pass

To pass AB 280B, you must email George Warneke ([george.warneke@pcc.edu](mailto:george.warneke@pcc.edu)) 8 weeks of journal entries. Each Monday I must receive an email with information from the previous week. It can be an attachment or typed into the body of the e-mail. It must include a summary of 1 week of your shop activities (vehicles worked on, tasks performed, any challenges and/or successes, etc.), info about the shop environment (how do the other employees treat you, how do you get along with them, how does the boss treat you, etc.), are your skills increasing (more ability, faster speed, new skills and techniques, etc.), are you part of the shop community (is it fun, are you comfortable in the professional setting, etc.). **Please include what week you are reporting on and how many hours have you worked so far.**

Here is a sample journal entry:

Week 2 (total hours worked so far – 80 hrs.)

This week was a little more fun than the last one. I am starting to get to know Justin and the other techs that I work with. These guys really know their stuff and they like to have fun too, there is a lot of joking between the guys at the shop and they are letting me in on it. I can already see that my abilities and speed are increasing and I'm contributing to the team.

In addition to being a more fun week, it was also a busier week, Justin and I turned out a lot of hours this week. He is letting me work more independently on some of the smaller jobs.

Monday- Removed front bumper, passenger fender and tore down door on 02 Toyota Tacoma

- installed front bumper on Volvo V70R (I struggled a little on this, but learned a lot)
- installed fog lights on front bumper of 06 Civic Hybrid

Tuesday- Put 02 Tacoma back together, found a broken tab on front headlight, had to order a new one, waiting on part to finish putting back together

- Cleaned and installed double back tape on moldings for F 250
- Tore down 05 Honda Accord, Rear bumper, Taillights, and fuel door

Wednesday- Removed front bumper on 08 Saturn Outlook

- tore down passenger door on 2002 Ford Ranger
- put 03 Ford Escape back together, Rear hatch, rear door, interior and back glass

Thursday- Repaired front bumper on 05 Honda Odyssey

- installed truck bed on 02 Ranger
- put passenger door together on 02 Ranger
- built front bumper for 02 Toyota Tacoma, installed front bumper and headlights

Friday- Put 05 Honda Accord back together

- built front bumper for 06 Toyota Sienna
- removed rear bumper and hatch on Honda Passport (I made good time on this one)
- pulled rear floor of Honda Passport
- used dent fix machine to raise low spots on Honda Passport floor and bondoed them

**For each outcome assessed this year:**

2. Describe the assessment design (tool and processes) used. Include relevant information about:

- The nature of the assessment (e.g., written work, project, portfolio, exam, survey, performance etc.) and if it is direct (assesses evidence mastery of outcomes) or indirect (student's perception of mastery). Please give rationale for indirect assessments (direct assessments are preferable).
- The student sample assessed (including sample size relative to the targeted student population for the assessment activity) process and rationale for selection of the student sample. Why was this group of students and/or courses chosen?
- Any rubrics, checklists, surveys or other tools that were used to evaluate the student work. (Please include with your report – OK to include in appendix). Where appropriate, identify benchmarks.
- How you analyzed results, including steps taken to ensure that results are reliable (consistent from one evaluator to another).

For our Learning Assessment, we assessed the six PCC Core Outcomes of our AAS Degree & ACR 2 Year Certificate. **(see attached Alignment of AAS Degree & Two-Year Certificate Outcomes with College Outcomes)** We also assessed our student's subject area specific hands-on and shop practices skills to fulfill our Technical Skills Assessment, as our program is a beneficiary of Perkins funding. We accomplished this task by combining the two projects into one end of program assessment. These are all direct assessments. Assessment sample size goal is 10 to 15 students per year.

The assessment tool **(see Cooperative Education Employer Evaluation)** is completed by the employer/supervisor during the completion of the student's Cooperative Education work experience requirement (300 hours). This is the sixth term of the ACR 2 Year Certificate and the AAS Degree.

The Learning Assessment portion focuses on 25 learning areas that align with the six PCC Core Outcome categories. The Technical Skills Assessment portion concentrates on 20 hands-on and shop practices skills that make up five categories of objectives that our program is built on. Some of the individual items could have been placed in either the learning assessment or the technical skills areas.



P.O. Box 19000 Portland, Oregon 97280-0990

# Cooperative Education

## Employer Evaluation

Student \_\_\_\_\_

Supervisor \_\_\_\_\_

Auto Collision Repair Term: \_\_\_\_\_

Company \_\_\_\_\_

### LEARNING ASSESSMENT

EVALUATION OF CO-OP STUDENT SHOULD BE BASED ON COMPARISON TO ENTRY LEVEL EMPLOYEES.

#### Level 1 - Limited

#### Level 2 - Basic

#### Level 3 - Advanced

#### 1 2 3 ABILITY TO COMMUNICATE

- Reading - estimates, repair order, parts lists, instructions
- Writing - parts request, supply lists, supplements
- Speaking - Terminology, appropriate interactions
- Listening - following instructions, ask suitable questions
- Visually - diagrams, using technology to convey ideas

#### HAS AN UNDERSTANDING OF COMMUNITY

#### 1 2 3 & ENVIRONMENTAL RESPONSIBILITY

- Recycling - metals, antifreeze, batteries, paints & thinners
- Hazards - exposure to chemical, safety, shop practices
- Pollution - efficient use of materials, end use issues

#### 1 2 3 DEMONSTRATE CULTURAL AWARENESS

- Cultural and human interactions - working within a team, attitude towards others
- Communicating with team members - mutual respect, acknowledging other opinions

#### ABILITY TO APPLY CRITICAL THINKING & PROBLEM

#### 1 2 3 SOLVING

- Process & repair problems - repair sequences, distinguish relevant from non-relevant data
- Computation - measurements, basic math, basic computer programs
- Utilization of repair date - repair orders, measurement charts, manufacturer's information

#### 1 2 3 EXHIBITS PROFESSIONAL COMPETENCE

- Is on time to work
- Alerts supervisor if absent or late
- Dresses appropriately for job setting
- Uses time effectively
- Adapt to feed back
- Does not endanger self or others
- Professional attitude

### TECHNICAL SKILLS ASSESSMENT

EVALUATION OF CO-OP STUDENT SHOULD BE BASED ON COMPARISON TO ENTRY LEVEL EMPLOYEES.

#### 1 2 3

- Knowledge & use of basic tools
- Personal safety practices - safety glasses, glove, dust masks, respirators
- Shows continual improvement and speed in completing work
- Exhibits adequate knowledge learned in class to perform tasks
- Uses care with equipment and materials
- Is accurate and careful in work
- Skill in parts removal & replacement
- Skill in labeling and storage of parts & hardware
- Skill in parts alignment

#### 1 2 3

- Skill in panel repair
- Skill in panel rough-out
- Skill in surface preparation
- Skill in finishing of filler
- Skill in frame set-up
- Skill in frame measuring
- Weld-on structural parts replacement
- Skill in panel removal
- Skill in panel fitting
- Skill in spot-weld drilling
- Skill in grinding welds

#### Instructor Use Only

Did the student meet the objectives?  Yes  No \_\_\_\_\_

Did the student complete their required hours?  Yes  No \_\_\_\_\_

Has this report been discussed with the student?  Yes  No \_\_\_\_\_

Portland Community College is an Equal Opportunity Employer and committed to a policy of non-discrimination for all people regardless of race, color, religion, sex, age, disability or national origin.

Supervisor Signature \_\_\_\_\_

Date \_\_\_\_\_

As part of the Cooperative Education contract, the employers agree to assess the degree to which students have met the outcomes and skills required of the certificate or degree. Our SAC chose 3 levels of achievement, as opposed to 4 or 5, so that the assessment was more cut and dry. This way the employer was not stuck trying to decide on the middle areas of scoring. This also makes the findings easier to interpret, more useful and consistent. As a result, there are less gray areas of scoring.

The assessment tool is based on a rubric that we provide (**see ACR Learning Outcomes/Technical Skills Assessment Rubric**). The rubric describes the 3 levels of achievement for each of the program outcomes and skills.

For consistency, both the rubric and the Cooperative Education Employer Evaluation sheets are administered at the work site by the Auto Collision instructor of record for the Cooperative Education course (There is only one instructor in charge of this, which insures consistency). The two documents are read and signed by the employer/supervisor and discussed with the instructor prior to completing the assessment. The employer/supervisor is reminded that the evaluation of the Co-op student should be based on comparison to entry level employees.

The Self-Reflection outcome category is scored on a separate assessment sheet using the same rubric and is completed by the Auto Collision instructor of record (The same singular instructor is in charge of this, which insures consistency) (**see ACR Self-Reflection Cooperative Education Learning Assessment**). The five specific areas of assessment that cover the self-reflection outcome are based on student and instructor interaction, worksite visits, and 8 weekly Co-op journal entries.

# Auto Collision Repair Technology

## Learning Outcomes/Technical Skills Assessment Rubric

### **Level 1- Limited**

Limited demonstration and application of knowledge and skills.

Entry level employee exhibits limited skill and speed, applies few learned skills and knowledge and struggles to perform task (is not developing skills), does not complete task or requires excessive guidance.

### **Level 2 - Basic**

Basic demonstration and application of knowledge and skills.

Entry level employee exhibits basic skill and speed, applies knowledge and uses developing skills to perform task, completes with some guidance.

### **Level 3 - Advanced**

Demonstrates advanced comprehension and is able to apply essential knowledge and skill.

Entry level employee exhibits advanced skill and speed, applies knowledge and uses proficient skills to perform task, completes with little guidance.

**Please use this scoring guide when completing the Supervisor Evaluation form. (Administered by Auto Collision Instructor)**  
**Evaluation of Co-op student should be based on comparison to entry level employees.**

Student \_\_\_\_\_

Supervisor \_\_\_\_\_ Date \_\_\_\_\_

## Auto Collision Repair Technology

### Self-Reflection Cooperative Education Learning Assessment

Student \_\_\_\_\_

Term \_\_\_\_\_

Level 1 – Limited    Level 2 – Basic    Level 3 - Advanced

#### Self-Reflection – Co-op student is able to apply self-reflection as it pertains to:

1   2   3

- summaries of shop activities and environment - 8 weekly journal entries
  
- assessing, examining and reflecting on their own professional competence and personal experience and how these impact and relate to the auto collision repair shop environment
  
- assessing own skills and abilities, monitor progress and motivate self
  
- being accountable for actions and their impact on others
  
- contributing to the shop community

This assessment is to be completed by the Auto Collision Repair Technology instructor at the completion of the Cooperative Education work experience. Assessment is based on student and instructor interaction, work site visit, and 8 weekly journal entries. Instructor will use Auto Collision Repair Technology Learning Outcomes Assessment Rubric as a scoring guide.

Instructor \_\_\_\_\_

Date \_\_\_\_\_



The information collected on each student for all of the outcomes combined is used as part of the grade for the student's 10 credits of AB280A Cooperative Education work experience. The information collected on each student for the self-reflection assessment is used as part of the grade for the student's 2 credits of AB280B Cooperative Education Seminar.

For program assessment, the information gathered from the students is entered into our assessment spreadsheet and is averaged for each outcome and an average of all outcomes is calculated for each student. The results are evaluated by the department for consideration of program improvement (**see ACR Learning/Technical Skills Assessment Spreadsheets**). Individual student results columns were placed into the spreadsheet in a random order for confidentiality.

Averaged scores of 2.0 and greater are interpreted as evidence that students are meeting or exceeding the specific outcomes. Individual student's scores of 1 in any category could trigger further evaluation of the student's abilities in this area, and could contribute to a non-passing grade for AB280A or AB280B. Our SAC and ACR Advisory Committee agreed on a target score of 2.0 (Basic demonstration and application of knowledge and skills) and above for any and all individual outcomes.

3. Provide information about the results (i.e., what did you learn about how well students are meeting the outcomes)?

- If scored (e.g., if a rubric or other scaled tool is used), please report the data, and relate to any appropriate benchmarks.
- Results should be broken down in a way that is meaningful and useful for making improvements to teaching/learning. Please show those specific results.

**2010-2011 Results:** Average scores in 10 out of 11 outcome categories and 12 out of 15 individual student averages were excellent! The one outcome category that we were not happy with was Self-Reflection. Out of the 5 learning areas in this category, 4 averages were under a 2.0 score. Three individual student averages were not as good as we would prefer. Students #3 and #13 were under 2.0 average score and student #10 was right at a 2.0 average score. Even with the eventual improvement in the category of Self-Reflection, which would bring these three scores up, there were other areas of concern for these three students. When examining the three students, there was a common thread.

They were non-native speakers and English is the second and even third language for these students. (Please refer to Spring 2011 ACR Learning/Technical Skills Assessment Spreadsheet)

### 2010-2011 Results

AUTO COLLISION REPAIR TECHNOLOGY  
Learning/Technical Skills Assessment Spreadsheet  
Spring 2011

Student	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Average	% of 1's	% of 2's	% of 3's	
Company name	VC	MC	KN	CA	AC	AA	AA	CA	CA	KW	MV	BB	KW	BT	MH					
Met objectives	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes				
Completed 300 hrs	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes				
Report discussed with student	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes				
<b>Total # of Students</b>	<b>15</b>																			
<i>Communication</i>																				
Reading	2	2	1	3	3	2	2	2	2	2	2	2	2	3	3	2.2	7%	67%	27%	
Writing	2	2	2	3	3	2	2	3	2	2	3	2	2	3	3	2.4	0%	60%	40%	
Speaking	3	3	1	3	3	3	3	3	2	2	3	3	1	3	2	2.5	13%	20%	67%	
Listening	2	3	1	2	3	3	2	3	3	3	2	3	1	2	3	2.4	13%	33%	53%	
Visually	1	2	1	2	3	3	3	2	2	2	2	3	2	3	3	2.3	13%	47%	40%	
<i>Community and Environmental Responsibility</i>																				
Recycling	3	3	2	3	3	3	3	3	3	3	3	3	2	3	2	2.8	0%	20%	80%	
Hazards	3	3	2	3	3	3	3	3	3	2	3	3	2	3	2	2.7	0%	27%	73%	
Pollution	2	3	2	3	3	3	3	3	3	2	3	3	2	3	2	2.7	0%	33%	67%	
<i>Critical Thinking and Problem Solving</i>																				
Process and repair problems	3	2	1	2	3	3	3	2	2	2	3	3	2	2	3	2.4	7%	47%	47%	
Computation	3	2	1	2	3	3	3	3	2	2	3	3	2	3	3	2.5	7%	33%	60%	
Utilization of repair date	2	2	1	2	3	3	3	3	2	1	3	3	2	3	3	2.4	13%	33%	53%	
<i>Professional Competence</i>																				
On time	3	3	3	2	3	3	3	3	3	3	3	3	1	3	2	2.7	7%	13%	80%	
Alerts if absent or late	3	3	3	2	3	3	3	3	3	3	3	3	2	3	3	2.9	0%	13%	87%	
Dresses appropriately	2	3	3	3	3	3	3	3	2	3	3	3	2	3	3	2.8	0%	20%	80%	
Uses Time Effectively	2	3	2	2	3	3	3	3	2	2	3	3	1	3	2	2.5	7%	40%	53%	
Adapts to feedback	1	3	2	3	3	3	3	3	3	3	3	3	2	3	3	2.7	7%	13%	80%	
Does not endanger self or others	2	3	2	3	3	3	3	3	3	3	2	3	2	3	3	2.7	0%	27%	73%	
Professional attitude	2	3	2	3	3	3	3	3	3	3	3	3	1	3	3	2.7	7%	13%	80%	
<i>Cultural Awareness</i>																				
Cultural and human interactions	1	3	3	3	3	3	3	3	3	3	3	3	2	3	3	2.8	7%	7%	87%	
Communicate with team members	3	3	2	3	3	3	3	3	2	3	3	3	1	3	1	2.6	13%	13%	73%	
<i>Self-Reflection</i>																				
Shop activities and environment	2	3	2	2	3	3	3	3	3	2	3	2	3	3	2	2.6	0%	40%	60%	
Assess, examine and reflect	1	2	1	1	2	2	2	2	3	1	2	2	2	2	1	1.7	33%	60%	7%	
Assess skills abilities	2	2	1	1	2	2	2	2	3	1	2	1	1	2	2	1.7	33%	60%	7%	
Accountable for actions	1	2	1	2	3	2	2	2	3	1	2	2	1	2	1	1.8	33%	53%	13%	
Contribute to shop community	2	2	1	2	2	2	2	2	3	1	2	2	2	2	2	1.9	13%	80%	7%	

Level 1=Limited 2=Basic 3=Advanced

AUTO COLLISION REPAIR TECHNOLOGY  
Learning/Technical Skills Assessment Spreadsheet  
Spring 2011

Student	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15				
<b>Shop Practices</b>																			
Knowledge and use of basic tools	3	3	2	3	3	3	3	2	2	2	3	3	2	3	3	2.7	0%	33%	67%
Personal safety practices	1	2	3	3	3	3	3	3	3	3	2	3	3	3	2	2.7	7%	20%	73%
Shows continual improvement, speed	2	2	2	2	3	3	3	3	3	2	2	3	2	3	2	2.5	0%	53%	47%
Exhibits adequate knowledge	3	3	2	3	3	3	3	3	3	3	3	3	2	3	3	2.9	0%	13%	87%
Uses care with equipment	1	3	3	3	3	3	3	2	3	3	3	3	2	3	2	2.7	7%	20%	73%
Accurate and careful	2	3	2	3	3	3	3	3	3	3	2	3	2	3	3	2.7	0%	27%	73%
<b>Parts Replacement</b>																			
Skill in parts removal	3	3	1	2	3	3	3	3	3	2	3	3	2	2	3	2.6	7%	27%	67%
Skill in labeling and storage	3	2	3	3	3	3	3	3	3	2	3	3	2	3	2	2.7	0%	27%	73%
Skill in parts alignment	1	2	2	3	3	3	3	2	1	2	3	2	2	2	2.3	13%	47%	40%	
<b>Panel Repair</b>																			
Skill in panel repair	2	2	1	3	3	3	3	3	3	1	2	3	3	2	2	2.4	13%	33%	53%
Skill in panel rough-out	2	2	2	3	3	3	3	3	3	2	2	3	2	2	2	2.5	0%	53%	47%
Skill in surface preparation	2	3	2	3	3	3	3	3	3	1	3	3	2	3	2	2.6	7%	27%	67%
Skill in finishing of filler	2	2	1	3	3	3	3	3	2	1	3	3	2	2	3	2.4	13%	33%	53%
<b>Frame Repair + Measuring</b>																			
Skill in frame set-up	2	2	1	2	3	3	3	2	2	1	2	3	2	3	3	2.3	13%	47%	40%
Skill in frame measuring	2	2	1	2	3	3	3	2	2	1	2	3	2	3	3	2.3	13%	47%	40%
<b>Weld-on Parts Replacement</b>																			
Weld-on structural parts replacement	3	2	2	2	3	3	3	3	2	2	3	3	2	2	2	2.5	0%	53%	47%
Skill in panel removal	3	2	2	3	3	3	3	3	3	2	3	3	2	2	2	2.6	0%	40%	60%
Skill in panel fitting	2	2	2	3	3	3	3	3	3	1	2	3	2	2	2	2.4	7%	47%	47%
Skill in sport-weld drilling	3	3	2	2	3	3	3	3	2	2	3	3	2	3	3	2.7	0%	33%	67%
Skill in grinding welds	3	3	2	2	3	3	3	3	3	1	3	3	2	3	3	2.7	7%	20%	73%
Student Average	2.2	2.5	1.8	2.5	2.9	2.9	2.8	2.8	2.6	2.0	2.6	2.8	1.9	2.7	2.4				
Individual student results columns were placed into the spreadsheet in a random order for confidentiality.																			

**Level 1=Limited 2=Basic 3=Advanced**

**2011-2012 Results:** Average scores in all 11 outcome categories and all 10 individual student averages were exceptional! The Self-Reflection outcome category results last year were 4 out of the 5 separate outcomes had an average score under 2.0. This year's results for that same category have improved dramatically. Out of the 5 separate Self-Reflection outcomes, 3 were 3.0 and 2 were 2.9! All individual student average scores were 2.1 or higher! The separate rubric scores of 1 have greatly changed to more 2s and 3s. The only anomaly was that student #8 scored 1s in 6 different individual outcomes. This particular student completed all but the Co-op for the ACR 2 year certificate 10 years ago and came back to completed the Co-op this spring term. He did not have the benefit of our current faculty and emphasis on team work, attitude, and being a good employee. **(Please refer to Spring 2012 ACR Learning/Technical Skills Assessment Spreadsheet)**

## 2011-2012 Results

AUTO COLLISION REPAIR TECHNOLOGY  
Learning/Technical Skills Assessment Spreadsheet  
Spring 2012

Student	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Average	% of 1's	% of 2's	% of 3's
Company name	HA	MV	KT	AA	KB	CC	EC	KH	FS	MC									
Met objectives	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes				
Completed 300 hrs	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes				
Report discussed with student	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes				
<b>Total # of Students</b>	<b>10</b>																		
<i>Communication</i>																			
Reading	3	2	2	3	3	3	2	2	3	3						2.6	0%	40%	60%
Writing	3	2	2	3	2	2	2	3	3	2						2.4	0%	60%	40%
Speaking	3	2	3	3	3	3	2	1	3	2						2.5	10%	30%	60%
Listening	3	2	2	3	3	3	2	2	3	3						2.6	0%	40%	60%
Visually	3	2	2	3	2	2	2	3	3	2						2.4	0%	60%	40%
<i>Community and Environmental Responsibility</i>																			
Recycling	3	2	2	3	3	3	2	3	3	3						2.7	0%	30%	70%
Hazards	3	2	2	3	2	3	2	3	3	3						2.6	0%	40%	60%
Pollution	3	2	2	3	3	3	2	3	3	3						2.7	0%	30%	70%
<i>Critical Thinking and Problem Solving</i>																			
Process and repair problems	3	2	2	3	2	3	2	3	2	2						2.4	0%	60%	40%
Computation	3	2	2	3	3	2	2	3	3	2						2.5	0%	50%	50%
Utilization of repair date	3	2	2	3	3	2	2	3	3	3						2.6	0%	40%	60%
<i>Professional Competence</i>																			
On time	3	3	3	3	3	2	2	2	3	1						2.5	10%	30%	60%
Alerts if absent or late	3	3	3	3	3	2	2	2	3	2						2.6	0%	40%	60%
Dresses appropriately	3	3	3	3	3	3	2	3	3	3						2.9	0%	10%	90%
Uses Time Effectively	3	3	2	3	3	3	2	2	2	3						2.6	0%	40%	60%
Adapts to feedback	3	3	3	3	3	3	2	1	3	3						2.7	10%	10%	80%
Does not endanger self or others	3	3	2	3	3	3	2	2	3	3						2.7	0%	30%	70%
Professional attitude	3	3	3	3	3	3	2	1	3	3						2.7	10%	10%	80%
<i>Cultural and human interactions</i>																			
Cultural and human interactions	3	2	3	3	3	3	2	1	3	3						2.6	10%	20%	70%
Communicate with team members	3	2	3	3	3	3	2	1	3	3						2.6	10%	20%	70%
<i>Self-Reflection</i>																			
Shop activities and environment	3	3	3	3	3	3	3	3	3	3						3.0	0%	0%	###
Assess, examine and reflect	3	3	3	3	3	3	3	3	3	3						3.0	0%	0%	###
Assess skills abilities	3	3	3	3	3	3	3	3	3	3						3.0	0%	0%	###
Accountable for actions	3	3	3	3	3	3	2	3	3	3						2.9	0%	10%	90%
Contribute to shop community	3	3	3	3	3	3	2	3	3	3						2.9	0%	10%	90%

Level 1=Limited 2=Basic 3=Advanced

AUTO COLLISION REPAIR TECHNOLOGY  
Learning/Technical Skills Assessment Spreadsheet  
Spring 2012

Student	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15					
<b>Shop Practices</b>																				
Knowledge and use of basic tools	3	2	2	3	2	3	2	3	3	3							2.6	0%	40%	60%
Personal safety practices	3	2	2	3	3	3	2	3	3	3							2.7	0%	30%	70%
Shows continual improvement, speed	3	2	2	3	2	3	2	2	2	3							2.4	0%	60%	40%
Exhibits adequate knowledge	3	2	2	3	2	3	2	3	3	2							2.5	0%	50%	50%
Uses care with equipment	3	2	2	3	3	3	2	2	3	3							2.6	0%	40%	60%
Accurate and careful	3	2	2	3	2	2	2	2	3	3							2.4	0%	60%	40%
<b>Parts Replacement</b>																				
Skill in parts removal	3	2	2	3	2	3	2	2	3	3							2.5	0%	50%	50%
Skill in labeling and storage	3	2	3	3	2	2	2	1	3	3							2.4	10%	40%	50%
Skill in parts alignment	3	2	2	3	2	3	2	3	2	3							2.5	0%	50%	50%
<b>Panel Repair</b>																				
Skill in panel repair	2	2	2	3	2	2	2	3	2	2							2.2	0%	80%	20%
Skill in panel rough-out	2	2	2	3	2	3	2	3	3	2							2.4	0%	60%	40%
Skill in surface preparation	2	2	2	3	2	3	2	3	3	3							2.5	0%	50%	50%
Skill in finishing of filler	2	2	2	3	2	3	2	3	3	1							2.3	10%	50%	40%
<b>Frame Repair + Measuring</b>																				
Skill in frame set-up	2	3	2	3	2	3	2	3	3	2							2.5	0%	50%	50%
Skill in frame measuring	2	3	2	3	2	2	2	3	2	2							2.3	0%	70%	30%
<b>Weld-on Parts Replacement</b>																				
Weld-on structural parts replacement	2	2	2	3	3	2	2	3	2	2							2.3	0%	70%	30%
Skill in panel removal	3	2	2	3	2	3	2	3	3	2							2.5	0%	50%	50%
Skill in panel fitting	3	2	2	3	2	3	2	3	2	2							2.4	0%	60%	40%
Skill in sport-weld drilling	3	2	2	3	2	3	2	3	3	2							2.5	0%	50%	50%
Skill in grinding welds	3	2	2	3	2	2	2	3	3	2							2.4	0%	60%	40%
Student Average	2.8	2.3	2.3	3.0	2.5	2.7	2.1	2.5	2.8	2.6	##	##	##	##	##					
Individual student results columns were placed into the spreadsheet in a random order for confidentiality.																				

**Level 1=Limited 2=Basic 3=Advanced**

**2012-2013 Results:** Average scores in all 11 outcome categories and all 15 individual student averages were exceptional! The Self-Reflection outcome category results from 2010-2011 were 4 out of the 5 separate outcomes had an average score under 2.0. This year's results for that same category have proven the trend of dramatic improvement as shown in 2011-2012. Out of the 5 separate Self-Reflection outcomes, all were well above the 2.0 basic score! All individual student average scores were 2.0 or significantly higher! The only anomaly was that student #9 scored 1s in 6 different individual skill outcomes. This particular student did his Co-op part time. This can hinder a student from getting the full shop experience and limit their hands on training. Overall scores for two skills in the Panel Repair category were low. We will examine our hands on training for these more closely in the Fall term Panel Repair course. **(Please refer to Spring 2013 ACR Learning/Technical Skills Assessment Spreadsheet)**

## 2012-2013 Results

**AUTO COLLISION REPAIR TECHNOLOGY**  
Learning/Technical Skills Assessment Spreadsheet  
Spring 2013

Student	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Average	% of 1's	% of 2's	% of 3's
Company name	AC	AE	NW	CR	TF	CA	CA	MN	KC	FA	DF	WC	AE	AA	HL				
Met objectives	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes				
Completed 300 hrs	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes				
Report discussed with student	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes				
<b>Total # of Students</b>	<b>15</b>																		
<i>Communication</i>																			
Reading	3	3	2	2	2	2	2	2	2	3	2	3	2	2	3	2.3	0%	67%	33%
Writing	3	3	2	2	3	2	2	2	2	2	2	3	2	2	3	2.3	0%	67%	33%
Speaking	3	3	3	2	3	3	2	2	2	3	3	3	3	2	3	2.7	0%	33%	67%
Listening	3	3	3	2	3	3	2	3	2	3	3	3	3	3	3	2.8	0%	20%	80%
Visually	3	3	2	2	2	2	2	2	2	2	3	3	3	2	3	2.4	0%	60%	40%
<i>Community and Environmental Responsibility</i>																			
Recycling	3	3	2	2	3	3	2	2	3	3	3	3	3	3	3	2.7	0%	27%	73%
Hazards	3	3	2	2	2	3	3	2	3	3	3	3	3	3	3	2.7	0%	27%	73%
Pollution	3	3	2	2	3	3	2	2	2	3	3	3	3	3	3	2.7	0%	33%	67%
<i>Critical Thinking and Problem Solving</i>																			
Process and repair problems	3	3	2	2	2	3	2	2	2	2	2	3	3	2	2	2.3	0%	67%	33%
Computation	3	3	2	1	2	3	2	3	2	2	3	3	2	2	2	2.3	7%	53%	40%
Utilization of repair date	3	3	2	2	3	2	2	3	2	2	3	3	2	3	3	2.5	0%	47%	53%
<i>Professional Competence</i>																			
On time	3	3	3	1	3	3	3	3	3	3	1	2	3	3	3	2.7	13%	7%	80%
Alerts if absent or late	3	3	3	1	3	2	2	3	3	3	2	3	3	3	3	2.7	7%	20%	73%
Dresses appropriately	3	3	3	2	2	1	1	2	3	3	2	3	3	3	3	2.5	13%	27%	60%
Uses Time Effectively	3	3	3	2	3	3	2	3	2	3	2	3	3	3	3	2.7	0%	27%	73%
Adapts to feedback	3	3	3	2	3	3	3	3	2	3	2	3	3	2	3	2.7	0%	27%	73%
Does not endanger self or others	3	3	3	2	2	3	3	3	3	3	1	3	3	3	3	2.7	7%	13%	80%
Professional attitude	3	3	3	2	3	2	2	3	2	3	2	2	3	3	3	2.6	0%	40%	60%
<i>Cultural Awareness</i>																			
Cultural and human interactions	3	3	3	2	3	2	2	3	3	3	3	3	3	3	3	2.8	0%	20%	80%
Communicate with team members	3	3	3	2	3	2	2	3	3	3	3	3	3	3	3	2.8	0%	20%	80%
<i>Self-Reflection</i>																			
Shop activities and environment	2	3	3	3	3	2	2	2	3	3	2	2	2	3	3	2.5	0%	47%	53%
Assess, examine and reflect	3	3	2	2	3	3	3	3	3	3	3	3	2	3	3	2.8	0%	20%	80%
Assess skills abilities	3	3	2	2	3	3	3	3	3	3	3	3	2	3	3	2.8	0%	20%	80%
Accountable for actions	3	3	2	2	3	3	3	3	3	3	3	3	2	3	3	2.8	0%	20%	80%
Contribute to shop community	3	3	2	3	3	2	2	3	3	3	3	3	2	3	3	2.7	0%	27%	73%

Level 1=Limited 2=Basic 3=Advanced



AUTO COLLISION REPAIR TECHNOLOGY  
Learning/Technical Skills Assessment Spreadsheet  
Spring 2013

Student	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15				
<b>Shop Practices</b>																			
Knowledge and use of basic tools	3	3	3	2	3	3	3	2	2	2	3	3	3	3	3	2.7	0%	27%	73%
Personal safety practices	3	3	3	2	2	3	3	2	2	3	3	3	3	3	3	2.7	0%	27%	73%
Shows continual improvement, speed	3	3	3	2	3	2	2	2	2	3	2	3	3	2	3	2.5	0%	47%	53%
Exhibits adequate knowledge	3	3	3	2	2	3	2	2	2	2	2	3	3	3	3	2.5	0%	47%	53%
Uses care with equipment	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	2.9	0%	7%	93%
Accurate and careful	3	3	3	2	3	3	3	3	2	3	2	3	3	3	3	2.8	0%	20%	80%
<b>Parts Replacement</b>																			
Skill in parts removal	3	3	3	2	3	2	3	3	1	2	2	2	3	3	2	2.5	7%	40%	53%
Skill in labeling and storage	3	3	3	2	3	2	2	2	2	3	2	3	3	2	3	2.5	0%	47%	53%
Skill in parts alignment	3	3	3	2	3	2	2	2	1	2	2	3	2	2	2	2.3	7%	60%	33%
<b>Panel Repair</b>																			
Skill in panel repair	3	3	2	2	3	2	1	2	2	2	2	2	3	2	2	2.2	7%	67%	27%
Skill in panel rough-out	3	3	2	2	3	1	1	3	2	2	1	3	3	2	2	2.2	20%	40%	40%
Skill in surface preparation	3	3	2	2	3	2	2	2	2	2	2	3	3	3	3	2.5	0%	53%	47%
Skill in finishing of filler	3	3	2	2	3	2	2	2	2	2	2	2	3	2	3	2.3	0%	67%	33%
<b>Frame Repair</b>																			
Skill in frame set-up	2	3	2	2	3	2	2	3	1	2	2	2	3	2	3	2.3	7%	60%	33%
Skill in frame measuring	2	3	2	2	3	2	2	3	1	2	3	2	3	2	3	2.3	7%	53%	40%
<b>Weld-on Parts Replacement</b>																			
Weld-on structural parts replacement	3	3	2	2	3	2	2	3	1	1	2	2	3	3	2	2.3	13%	47%	40%
Skill in panel removal	3	3	2	2	3	2	2	3	1	2	2	2	3	3	3	2.4	7%	47%	47%
Skill in panel fitting	3	3	2	2	3	2	2	2	2	2	2	3	3	2	2	2.3	0%	67%	33%
Skill in sport-weld drilling	3	3	2	2	3	2	2	3	2	3	2	3	3	3	3	2.6	0%	40%	60%
Skill in grinding welds	3	3	3	2	3	2	2	3	2	3	2	3	3	3	3	2.7	0%	33%	67%
Student Average	2.9	3.0	2.5	2.0	2.8	2.4	2.2	2.6	2.2	2.6	2.3	2.8	2.8	2.6	2.8				

Individual student results columns were placed into the spreadsheet in a random order for confidentiality.

**Level 1=Limited    2=Basic    3=Advanced**

4. Identify any changes that should, as a result of this assessment, be implemented to help improve students' attainment of outcomes. (These may include, but are not limited to, changes in curriculum, content, materials, instruction, pedagogy etc).

The anomaly that we noticed about a student that did his Co-op part time is of concern. Because of this, we have decided to discourage students from attempting to work at their Co-op shop part time and instead we would encourage them to work full 40 hour work weeks.

As a result of our findings, individual skills in the Panel Repair category will be a focus in the fall term Panel Repair course.

Based on all of our results, we will continue to implement and support the suggested changes and improvements as listed and described in sections 1 and 4.

5. Reflect on the effectiveness of this assessment tool and assessment process. Please describe any changes to assessment methodology that would lead to more meaningful results if this assessment were to be repeated (or adapted to another outcome). Is there a different kind of assessment tool or process that the SAC would like to use for this outcome in the future? If the assessment tool and processes does not need to be revised, please indicate this.

Our assessments are being scored on all six College Outcomes as they relate to the Auto Collision Repair Technology Outcomes. The assessment tools that the ACR SAC has developed have proven to be extremely effective. They give us a very clear overview and detailed picture of our entire program. We feel that this process has been very valuable for our instructors and our students.

Overall, we can conclude from the data that our efforts and changes that we have implemented have made a big difference in improving our student's experience and outcomes. Our assessment tools and processes do not need to be revised at this time.