ALLAN HANCOCK COLLEGE

PROGRAM REVIEW

2015-2016

Program Name: Auto Body and Collision Repair

Self Study Members: Eric Mason

Six Year Program Review
Auto Body Collision

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PROGRAM REVIEW

Status Summary - Plan of Action-Post Validation

During the academic year, 2008-2009 completed program review. The self-study and validation teams developed a final plan of action-post validation based on information in the self-study with the recommendations of the validation team. For each plan, indicate the action taken, the result of that action, and the current status of the plan, if it is incomplete.
(If any plan was made and action not taken, please state the rationale for not pursuing that particular item.)

PLAN OF ACTIONACTION TAKEN, RESULT AND STATUS

1. **Develop SLO's for all Auto Body Courses to track the success of student achievement:**
    a. Define and improve student success by evaluation results to determine if changes are needed in curriculum, courses, instruction or labs.
    b. Develop and implement rubrics for all courses.

Response: The Auto Body Collision and Repair Program has fulfilled this plan of action item by developing well thought out SLO's for each of its courses as well as at the program and institutional level. Student data and success has been documented and recorded by the use of Likert scale rubrics and evaluated by the program administrator after evaluation of each SLO outcome. Improvement methods are suggested and/or introduced.

2. **Determine learning and service needs of AHC students – implement student outreach.**

Response: As an instructor, I struggle with how to measure the learning and service needs of our students. As a department, we have done a lot of outreach to middle and high school youth. Each of our programs participate in the AHC Career Day and as the Department Chair, I am on the planning committee. Other career fairs that we participate in annually include Lopez HS, Pioneer Valley HS, and Santa Maria. We also give tours to Grizzly Academy, Taft HS, Delta and anyone else who requests it. Every effort is made to accommodate local schools. This action item has been completed and will be ongoing to promote our programs and get additional students in our classes.

3. **Demographic Changes**:

Response: There has been a big push by the Auto Body Collision and Repair Program along with all the other programs in Industrial Technology to work with the Public Information Office to revamp enrollment. We have updated our

brochures and WebPages and purchased banners, general business cards and bus signage to increase enrollment with a focus on increasing the number of women and underserved minorities in our programs. Our plan is to re-brand the entire department as HIGH SKILL*HIGH WAGE*HIGH DEMAND jobs. This format will help us focus on what we do best; train our students as great employees for the industries that our programs represent.

4. **Curricular Changes:**

Response: The full time faculty member has received water born paint training in 2013 by attending the DuPont Cromax Color Solutions program. This training helped the instructor develop new class material for his AB 358 (Advanced) paint classes. The instructor also completed a Teacher Externship at a local auto body shop for water born application techniques. The instructor has also received training on the new measuring systems purchased by CTEA fund, but still needs to attend a frame pulling class. In the last six years, progress has been made in the number of degrees and certificates that have been awarded in the Auto Body Technology Program. During the years of 2002-2007 the program awarded six degrees and certificates. In 2008-2009, nine degrees and certificates were awarded. In 2013-2014 eight degrees and 23 certificates were awarded. We attribute this to working with students as needed on the requirements, focusing on completion of courses and certificates and emphasizing the industry standards and needs for education. This action items has been completed and will be ongoing to ensure student success.

5. **Co-Curriculum**:

Response: It was determined that with the heavily impacted automotive program that by leaving additional courses in the Associate Degree as electives, this was sufficient to entice many Auto Collision students to take additional coursework in Auto Technology. This has enhanced and continues to strengthen the relationship between the two programs as seen in the student Auto Club where students from both disciplines work side by side on club events, including the annual Student Car Show. AHC Auto Body students have made progress obtaining jobs in our community in the industry. Several shops have requested our students as employees and through our strong partnerships in our advisory committee students are getting hired. In other cases, many students have left the area to find work in the larger cities at a higher pay.

6. **Facilities**:

Response: Measure I funds have been used to build a new Auto Body Lab. The outside lab is covered, but heat was not provided although it was designed into the first set of drawings of the building. The two state of the art down draft paint

booths have been installed with water born drying system, heat and a larger work space; unfortunately, the paint mixing station is in the open area between the two booths. Another potential problem is the lack of an outer roll up door to secure the front of the paint booth building. Both paint booth doors are now exposed directly to the outside elements and may deteriorate rapidly from rain and salt contamination. Roll up doors were requested by the Auto Body Faculty throughout the design and building of the paint booths and were included in the plans until the 90* drawing phase which were the final specifications that were approved for building.

7: Equipment:

Response: This is not complete. The Auto Body Collision budget is too low for the staff and lab to adequately and properly prepare our students for the world of work. The budget has not increased in the last twelve years. During this time period paint prices have risen 15% a year on the average. Other supplies have gone up from 5 to 10% and the budget has stayed stagnant. This results in very few students that can actually paint during the semester and those are the students that can get a project ready; purchase the paint themselves and schedule time in the paint booth to practice the spray techniques.

8: Staffing:

Response: The program has hired one part time instructor and is reviewing applications for a second part time instructor. The Auto Collision program struggles to find qualified help due to the educational requirement needed to teach at the postsecondary level. Often those who have the experience do not have the education and those with the required education, do not have the experience. This is an area that many of the Industrial Technology programs struggle with. The program also needs a full time secretary in the Department office to adequately support all seven Industrial Technology Programs. The Auto Collision Program, as well as the other six programs, requires heavy amounts of purchase orders (both writing and tracking). This secretary position also handles three Apprenticeship Programs that operate on a year round basis and are taught off site. The Industrial Technology Department needs a secretary full time (37 hours a week) for 11 months a year.

PLAN OF ACTION – PRE-VALIDATION
AUTO BODY
2008-2009

2008-2010	Develop Student Learning Outcomes for the Auto Body Technology curriculum.
2008-2011	Use Student Learning Outcomes data to determine changes needed to improve the Auto Body Technology program.
2008-2014	Implement student outreach to maximize program exposure and increase enrollment.
2008-2014	Increase program and certificate/degree completion by 15% in the Auto Body Technology program.
2008-2011	Evaluate and realign certificate and degree requirements to include more Automotive Technology course work.
2008-2011	Improve the Auto Body Technology lab facility through Measure I funding.
2008-2011	Attend training on water born paint application and frame repair procedures to maintain trade proficiency.

PLAN OF ACTION – POST-VALIDATION
(Sixth-Year Evaluation)

DEPARTMENT Industrial Technology PROGRAM Auto Body Technology

In preparing this document, refer to the Plan of Action developed by the discipline/program during the self-study, and the recommendations of the Validation Team. Identify the actions the discipline/program plans to take during the next six years. Be as specific as possible and indicate target dates. Additionally, indicate by the number each institutional goal and objective which is addressed by each action plan. (See Institutional Goals and Objectives) The completed final plan should be reviewed by the department as a whole.

Please be sure the signature page is attached.

RECOMMENDATIONS TO IMPROVE DESIRED STUDENT OUTCOMES AND IMPROVE STUDENT PERFORMANCE	Theme/Objective Strategy Number AHC from Strategic Plan	TARGET DATE
Develop Student Learning Outcomes for all Auto Body courses to track the success of student achievement. Use Student Learning Outcomes to define and improve student success by evaluating student data and determining changes needed to improve program course work and teaching pedagogy. Develop, measures to evaluate Student Learning Outcomes with rubric	2.2.2 2.2.3	1/22/11 1/22/11

RECOMMENDATIONS TO ACCOMMODATE CHANGES IN STUDENT CHARACTERISTICS	Theme/Objective Strategy Number AHC from Strat Plan	TARGET DATE
Enrollment Changes Find ways to determine the learning and service needs of the AHC student demographic as relates to the Auto Body Technology program. Implement student outreach that maximizes access to the Auto Body Technology courses.	1.1.2 2.2.1	1/22/11 1/22/11
Demographic Changes Develop an enrollment management plan that addresses anticipated demographic changes in response to the service learning needs of students in the Auto Body Technology curriculum. Work with Public Information Office to develop enrollment management plan.	1.1.3	Ongoing

RECOMMENDATIONS TO IMPROVE THE EDUCATIONAL ENVIRONMENT	Theme/Objective Strategy Number AHC from Strategic Plan	TARGET DATE
Curricular Changes To define and improve student success throughout the Auto Body Technology curriculum pertaining to certificate and degree program completion.	2.2.3	5/27/11
Co-Curricular Changes Incorporate and realign Auto Body Technologies certificate and degree program to include more Automotive Technology courses to enhance communication between the automotive areas offered at AHC, and increase student ability to gain employment within the industry.	4.2.1	5/27/11

V2

Neighboring College and University Plans NA		
Related Community Plans NA		

RECOMMENDATIONS THAT REQUIRE ADDITIONAL RESOURCES	**Theme/Objective/ Strategy Number AHC from Strate Plan**	**TARGET DATE**
Facilities Maximize Measure I funds to build an Auto Body lab sufficient to accommodate students in a comfortable environment suitable for any weather condition. This would include enclosing the out side work areas and providing heat during the cold times of year. Improve commitment to developing an environmentally conscious physical environment by installing and maintaining two state of the art down draft paint booths equipped with water born paint drying system, heat, and a paint mixing room as a safe zone between the two booths inside the indoor lab.	3.2.2 3.4.3	1/1/13 1/1/13
Equipment Provide sufficient budget to manage the raising costs of materials and equipment needed to operate a responsibly managed Auto Body Program. Provide audio video and smart podium equipment in the lecture classroom of the new Measure I Industrial Technologies building per completion.	3.2.5 3.3.1	1/1/11 1/1/13
Staffing Provide faculty with water born paint training and frame machine training as a professional development opportunity to enhance the teaching, learning, and service outcomes needed to afford comprehensive technical training in the field of Auto Body Technology. Provide opportunity for the hiring of additional staff as needed to accommodate potential growth of program needs facilitated by expanded facilities and student base.	3.1.3 3.3.3 3.1.3	Ongoing Unknown

PROGRAM REVIEW for Allan Hancock College Collision Program

Allan Hancock College Program Review
Comprehensive Self-Study

Program review is intended to be a reflective process that builds on the extensive information gathered for the Annual Updates and lays out the program's major directions for the future.

I. Program Mission *(must align with college mission statement)*

Describe the need that is met by the program or the purpose of the program. For CTEA programs only, show that **"the program does not represent an unnecessary duplication of other vocational or occupational training programs in the area."**

The Auto Body Collision Program is dedicated to providing the theory, knowledge, and manipulative skills necessary to succeed in the industry. We encourage our students to conduct themselves with integrity and foster a commitment towards safety, environmental responsibility, and lifelong learning. The Auto Body Technology Program trains students for entry-level employment in the Auto Body Industry and this program does not represent an unnecessary duplication of other career training programs in the area.

II. Progress Made Toward Past Program/Departmental Goals

Summarize the progress the program/department has made toward achieving its goals during the past six years. Discuss briefly the quality, effectiveness, and strengths of the program as reflected in its Annual Updates. Show the relationship between the program goals, the mission of the college, the district strategic plan, and the impact on student development and success.

The Auto Collision Department has made steady progress toward its goals over the last six years. In summary:

- **Updated Equipment**: Chief Goliath Frame Machine; Shark Measuring System; Velocity Measuring System; Two Post Lifts and various tools provided by CTEA funds.
- **New lab facilities**: Upgraded to a new Industrial Technology Complex through Measure I bond Funds.

- **Student Learning Outcomes**: The program overall has made good progress with Student Learning Outcomes (SLO) implementation with recording 100% measurements through assessments.

- **Degree and Certificate completion** has increased over the past six years. From the period of 2002 to 2007 (during the last program review) the program produced six Associate Degrees and six Certificates. For this review period (Fall 2008 to Spring 2013) the program awarded 18 Associate degrees and 25 certificates. This is approximately a 400% increase in Associate degrees and a 300% increase in certificate completion.

- **Strong Industry Support**: The program maintains a core of dedicated industry professionals for the Advisory Committee members who meet regularly.

The strengths of the AHC Auto Body Technology program include:

  - **Affordability**: At $46 per credit hour, Allan Hancock College provides a very affordable education as compared to for-profit institutions such as the Universal Technical Institute (UTI) Center.
  - **Career placement**: Our placement of students in local shops has been positive even though the immediate area of Santa Maria does not have a lot of hiring potential. This is compared to other parts of California, or the U.S. in which the current and future employment trends are much better.
  - **Skill building**: We maintain and update our Student Learning Outcomes and align these with current industry standards.
  - **Quality & Effectiveness**: continuing improvements in our program through industry training of the instructor, (Pomona training DuPont Pro-Cromax), along with new equipment, new tools, paint booths and labs.
  - **Accessibility**: an increase of classes and labs available during the day and in the evening. More advanced classes have been added and wait lists are standard for all levels.
  - **Outdoor lab and equipment**: Students are encouraged to bring their own cars or projects to the lab. This actual hands-on experience benefits the instruction in several ways, including "buy-in" from the

student on their own property; attention to detail; and teamwork that results in students helping each other.

- **Staff**: We hired an industry expert for the part time position who works full time as a painter at Home Motors Chevrolet. The full time instructor continues to take paint certification classes and enroll in ongoing professional development.
- **AHC's current focus is on student success**. The Auto Body program can point to many specific examples in which they have contributed to student success such as:

1. Active Student Car Club.
2. Development of a new SKILLS USA student club.
3. Collaboration between all programs in the Industrial Technology Department.
4. Automotive Service Excellence (ASE) testing within the department for Auto Tech and Auto Body students.
5. Scholarships specific to only Industrial Technology Students.
6. Strong recruitment and outreach to area middle and high schools.
7. Collaboration with the Model A's Car Club on outreach, scholarships and purchase of needed textbooks for students.
8. Exemplary advisory committee member inputs with meetings scheduled every semester.
9. Clean, safe and up-to-date classrooms and labs.
10. Collaborative project with Santa Maria High School racing team.

III. Analysis of Resource Use and Program Implementation

Describe the program's current allocation and use of human, physical, technology, and fiscal resources. Are resources sufficient and appropriate to meet program needs? Can program resources be reallocated to better meet student needs?

HUMAN RESOURCES: The Auto Body Technology program has been able to hire a part time employee, which has made it possible to add one additional Auto Body class each semester. As the program grows and as AHC enrollment allows, we will need to add another part time faculty member. We share one department secretary who is part time at 30 hours a week with seven in house programs and

the three apprenticeship programs taught off campus. This position needs to be a full time (37 hours a week) for eleven months a year to handle the work load of this very busy department and to adequately support Auto Body as well as the other programs.

PHYSICAL RESOURCES: The Auto Body Technology program has been very fortunate in the physical allocation category and has just moved into new classroom and labs, which is a marked improvement over the lab and paint booths that were twenty-six years old in O-26. The only concern is the lack of outdoor storage, which will allow materials to be stored and protected from the elements. One solution that has been proposed to AHC administration that will solve this problem is to purchase a 20' Seatrain container to be placed in the outdoor area for materials, equipment and tools.

TECHNOLOGY RESOURCES: We have purchased several new items using CTEA and EQUIPMENT Prioritization funds including the following that all use software and are leading edge industry standard equipment for our students to learn on including:

- Chief Goliath Frame rack
- Two Measuring Systems that measure the control points in the frame that allows the student to complete the repairs to get the car back to the pre-determined factory specifications. These new machines include the Shark Beam and Velocity:
- Welders- 220 V Tweco MIG/TIG

An area that is lacking in technology is in the estimating and service information areas. In the past, when the software was acquired, it was very difficult to maintain due to the updates, which required AHC Information Technology Services personnel to install within time constraints and deadlines. Once these deadlines were missed, the software locked down and made it unusable in our classroom. Because of this the Auto Body program has not pursued TAC funds to purchase this

new estimating software.

FISCAL RESOURCES: The current budget funding is extremely tight and has not been indexed to inflation or increased in line with the additional class offerings and number of students and as a result, the Auto Body Technology program has continued to struggle with budgetary resources. Supplies, paint, and shop maintenance costs have continued to increase (estimated at 10-15 % per year) while the yearly AHC auto body collision budget has remained the same over the last six years. This has made it difficult to provide training in waterborne paint spraying techniques due to the high material expense. Waterborne paint is moving toward the new industry standard nationwide and has been regulated in California for several years to reduce volatile organic compounds (VOC) emissions. With this trend toward regulation and following Europe and Canada's lead, paint manufacturers are quickly developing low-VOC primers and base-coat products, which are also increasing the costs of paints. This program does a good job with the money it does get but the budget needs to be increased by $4,125 to be able to serve our students and meet the outcomes of the SLO's.

IV. Program SLOs/Assessment

What are your program student learning outcomes? Have each of these been assessed since the last comprehensive program review? How are they measured? What did the assessment data indicated about the strengths and weaknesses of your program? What changes do you plan based on these data?

The Student learning Outcomes are listed below and all have been assessed since the last comprehensive program review. The SLO's are measured using tests, quizzes, written assignments, hands-on manipulative skill operations and safety. They are measured using a standard Likert system. The strengths of the program are that the majority of the SLO's

tested show students are making good progress in the stated areas. The weaknesses are in the area of using urethane paint, specifically water-borne based coat, and our students need more hands on training to fully understand and apply the theory and techniques of this paint. This would also require additional budgetary funding.

AB330	Print Reading & Interpretation	AB330 SLO1 - read and interpret various engineering drawings by completing numerous assignments.
	Print Reading & Interpretation	AB330 SLO2 - identify surface finish marks, tolerance, basic architecture, and welding symbols and be able to explain their meanings.
	Print Reading & Interpretation	AB330 SLO3 - use an engineering drawing accompanying specifications and materials lists to solve industrial questions, to complete a project, or solve a related problem.
	Print Reading & Interpretation	AB330 SLO4 -use related handbooks, codes, and other references as they may be needed to solve a print reading question.
AB351	Auto Body Metal	AB351 SLO1 - Identify the correct tools and equipment for sheet metal and collision repair.
	Auto Body Metal	AB351 SLO2 - Understand the need for career training pertaining to job success and ethics.
	Auto Body Metal	AB351 SLO3 - Repair a dent by roughing out, straightening, and finishing meeting industry standards.
	Auto Body Metal	AB351 SLO4 - Apply good work habits and safety practices.
	Auto Body Metal	AB351 SLO5 - Understand the steps needed to correct sheet metal damage and apply plastic filler
AB353	Auto Body - Repair	AB353 SLO1 - Diagnose frame damages using measurement of datum and centerline to determine repair procedures.
	Auto Body - Repair	AB353 SLO2 - Use and set up computerized measuring system to determine frame damage.
	Auto Body - Repair	AB353 SLO3 - Properly secure a vehicle to the frame rack and make pulls needed to correct frame misalignment.
	Auto Body - Repair	AB353 SLO4 - Choose and use the correct tools and equipment for each phase of body and frame alignment/repair
	Auto Body - Repair	AB353 SLO5 - Use manufacturer's specifications to correct structural frame damage.
AB354	Selected Auto Body Paint	AB354 SLO1 - Prepare and follow through to completion a pre-defined project.
	Selected Auto Body Paint	AB354 SLO2 - Use a variety of shop equipment safely as he/she would be required to do on an actual job.
AB355	Selected Auto Body Metal	AB355 SLO1 - Prepare and follow through to completion a pre-defined project.
	Selected Auto Body Metal	AB355 SLO2 - Use a variety of shop equipment safely as he/she would be required to do on an actual job.
AB356	Automotive Painting Techniques	AB356 SLO1 Determine processes and materials needed to prepare vehicle surfaces for painting.
	Automotive Painting Techniques	AB356 SLO2 - Use paint mixing ratios to determine the mixture of various paint materials.
	Automotive Painting Techniques	AB356 SLO3 - Practice good safety and properly use the equipment and materials in the automotive painting industry.

	Automotive Painting Techniques	AB356 SLO4 - Determine the process and terms needed to write and estimate
	Automotive Painting Techniques	AB356 SLO5 - Fix a door ding using polyester glazing putty and primer surfacer.
AB358	Automotive Refinishing	AB358 SLO1 - Analyze body surface problems and determine measures to take in alleviating them.
	Automotive Refinishing	AB358 SLO2 - Use good work habits and safety practices.
	Automotive Refinishing	AB358 SLO3 - Produce a vehicle paint job in accordance with accepted industry practices and procedures.
	Automotive Refinishing	AB358 SLO4 - Choose the correct equipment, tools, and materials to properly prepare and paint a vehicle.
	Automotive Refinishing	AB358 SLO5 - Understand the theory of paint color matching.
AB360	Collision and Painting Repairs	AB360 SLO1 - Evaluate major damage and repair strategies using frame measurements to determine repair procedures.
	Collision and Painting Repairs	AB360 SLO2 - Develop MIG welding theory and skills needed in the collision industry
	Collision and Painting Repairs	AB360 SLO3 - Develop commercially acceptable refinishing skills.
	Collision and Painting Repairs	AB360 SLO4 - Understand all major components of a vehicle.
	Collision and Painting Repairs	AB360 SLO5 - Produce commercially acceptable skills and speed in workmanship.
AB381	Industrial Mathematics	AB381 SLO1 - Solve industrial problems using one or more of the above mentioned mathematical entities.

V. Trend Analyses/Outlook

Using the information already gathered (e.g., enrollment and achievement data; student learning outcomes assessment and analysis; input by advisory boards; existing articulation agreements; labor market trends) summarize the major trends, challenges, and opportunities that have emerged in the program since the last program review

Overall the enrollment and achievement data suggest that the Auto Body students are retained at a high level and are succeeding at an acceptable level. Student success seems to average around the high seventy percent range as a combined score of all classes. The one area for improvement seems to be the evening offering of ***AB 356: Automotive Painting Techniques (3 units)***. The Spring Semester in particular is suffering from a pattern of a low success rate. A discussion is needed between full time faculty and adjunct faculty to determine how the success rates can be improved. Typically the student demographics for the evenings include full time working students who may not be pursuing Auto

Body as a career, but are interested in learning a new skill set.

Associate Degrees awarded in the Auto Body program have increased 400% since the last Program Review. From the period of Fall 2008 to Spring 2014 there have been eleven completers or graduates.

Auto Body Technology awarded 43 Associate Degrees and Certificates in the 18 - 30 unit category. This is an improvement from the last program review cycle. The data also suggest that graduation rates have been increasing each year since 2008 to present. The Auto Body Technology Department will keep working hard to improve graduation rates and particular emphasis will be on recruiting and retaining women and the underserved populations as well.

The outlook for the Auto Body Collision Trade remains positive. According to the U.S. Bureau of Labor Statistics: Occupational Outlook Handbook webpage, "Employment of automotive Body and Glass repairers is projected to grow 13 percent from 2012 to 2022, about as fast as the average for all occupations." The report also states, "Job opportunities should be very good for job seekers with industry certification and formal training in automotive body repair and refinishing and collision repair." The pay scale for Auto Body Collision workers according to the website remains solid. "In May 2012, the median annual wage for Automotive Body and related repairers was $38,380. " Another source, The Collision Repair Education Foundation, executive summary of the 2013 survey lists, "2013 National Annual Income Averages; Collision Repair Technicians" as $52,997. Another interesting figure this survey notes is that "over one of every four respondents looks to technical school programs for recruiting entry-level technicians." This is followed by a preference for online ads and then newspaper ads. This shows a growing trend in post-secondary training as one that is essential in workers finding employment at the entry level for this industry. In addition, according to this survey, entry-level technicians are expected to know most of the Student Learning Outcomes (SLO) taught in the Auto Body curriculum. This is also reinforced in many of the Auto Body Advisory Committee Meetings as a recurring discussion. Most industry professionals share the realities of the trades, that tight scheduling, fast turnaround times, and an emphasis on

customer service, means that there is little time to train technicians as apprenticeships with the car lead time from entry to exit as expedited. In summary, Community College Programs are a viable answer to the growing demand for trained entry-level technicians for the Auto Body and Collision and Repair industry.

Student learning outcomes have shown that the Auto Body Technology Department continues to serve students with high quality instruction on a tight annual budget. One area that needs improvement is our refinishing courses. Student Learning Outcomes have shown a deficiency in the area of spray paint application methods. This most likely explains some of the lack of success the ***AB 356: Automotive Painting Techniques (3 units)*** course is experiencing. It is difficult to teach students paint application methods without physically spraying paint due to cost restraints. Our current annual budget cannot support the instruction due to the cost of paint. The painting that is done in the lab environment is typically paid for on "a student by student basis" thus greatly limiting the learning opportunities for **all** students in the class. This budget related concern has also effected the ***AB 358: Automotive Refinishing (3 units)*** Refinishing course through minimum exposure to spraying waterborne base coat paint, which is the current industry standard in Santa Barbara County at Auto Body and Collision Repair shops. Technique and quality in water-based paints is emphasized in this program. Therefore, an increase in the annual Auto Body Technology budget of $4,125/ year is requested to meet the SLO's of the refinishing classes (***AB 356: Automotive Painting Techniques (3 units) and AB 353: Auto Body Repair (3 units***) and prepare AHC students to meet the needs of the auto body and collision industry.

The Auto Body Technology Program has been fortunate to have a dedicated core group of volunteers with a wide variety of skill sets throughout the industry including: two shop owners; one painter; one insurance adjuster; one Career Technical Education (CTE) high school instructor and one paint jobber/store owner. This group of Advisory Committee members has been very supportive of AHC and the Auto Body program. Over the past six years, a lot of advice and recommendations have come from this talented team of individuals. One of the

first recommendations was to update some of the shop equipment such as: Frame Machine; Frame Measuring System; Hand and Power Tools; Two Post lifts; and the Paint booths. With the help of CTEA funds and the Measure I Bond, these upgrades have all been made which include:

- Chief Goliath Frame Machine
- Shark Measuring Sonar System
- Chief Laser Lock Measuring Machine
- Snap on and Matco Tools and Tool chests
- Two Post Car/Vehicle Lifts
- Two down draft paint booths with waterborne capabilities, fan drying systems and full bake cycle curing.

Another recommendation from the Auto Body Advisory Committee was to become more familiar with the new waterborne urethane base coat systems that are currently used in the paint industry. This was something that they stressed that students needed to learn and be comfortable with using upon completion of their coursework. From this recommendation, the following was completed by the Full time instructor:

a. **Teacher externship at Foster's Body and Paint**, owned by Steve Foster, an Auto Body advisory committee member. Eric Mason was able to train under the lead painter and learn on-the-job paint preparation, blending techniques, paint application and color matching. This externship experience exemplified how important waterborne training was in the industry.

b. **Attendance and completion of two day CROMAX PRO COLOR SOLUTIONS**, Axalta (former DuPont) Color Matching course. From the training at this national facility, Eric Mason was able to develop a new lesson plan specifically for waterborne paint for the ***AB 358: Automotive Refinishing (3 credits)*** class.

c. Request: **Professional Development funds** to attend more classes and training specifically tied to the Auto Body industry. Areas for skill training

for the instructors include: welding for aluminum body vehicles; more training on water-based paint and preparation; frame rack computer technology; and compliance with the air quality board and standards.

As applicable, please address the breadth, depth, currency, and cohesiveness of the curriculum in relation to evolving employer needs and/or transfer requirements, as well as other important pedagogical or technology-related developments.

The breadth, depth, currency and cohesiveness of the Auto Body Technology Program produces students capable of handling the rigors of expectation imposed on technicians entering the Auto Body and Paint Repair Industry. The curriculum starts with two beginning courses: ***AB 351: Auto Body Metal (3 units) and AB 356: Automotive Painting Techniques (3 units)*** which are the prerequisites for the advanced courses. The advanced courses, ***AB 353: Auto Body Repair (3 units), AB 354: Selected Auto Body Paint Projects (1 unit), AB 355: Selected Auto Body Metal Projects (1 unit), AB 358: Automotive Refinishing (3 units) and AB 360: Collision Repair (5 units)*** make up the breadth and depth of the Auto Body Technology curriculum. Currency is maintained through advisory committee meetings held twice a year with reviews of the training, tool acquisition, equipment purchases and curriculum. These elements come together with the elective coursework and general education classes to make the Auto Body Technology Associates Degree a cohesive field of study.

The breadth of the Auto Body Technology Program starts with a foundation of safety, metal and paint repair and progresses through advanced procedures including computerized frame measurement and frame repair. The introductory ***AB 351: Auto Body Metal (3 units)*** course covers the foundation needed to advance in metal straightening repair. Topics covered include: Safety, hand/power tool terminology; metal manipulation; filler application, rust out repair, welding and primer application. **AB 358: Automotive Refinishing (3 units)** provides the foundation for learning the techniques of refinishing. Topics include: paint safety; refinishing materials/equipment, estimating, and paint preparation and painting techniques. AB 353 further expands the breadth***: AB 353: Auto Body Repair (3 units)*** which covers frame measurement, frame straightening, structural damage analysis and structural damage repair. The ***AB 360: Collision Repair (5 units)*** course is an in-depth class that covers many of the subsections of a vehicle, including, vehicle designs, glass/door service, restraint systems, air bag systems, welding, interior/trim, electrical, powertrains and wheel alignment. ***AB 358: Automotive Refinishing (3 units)*** teaches cover matching, blend painting,

final detailing, waterborne paint application/preparation and graphics. The ***AB 354: Selected Auto Body Paint Projects (1 unit) & AB 355: Selected Auto Body Metal Projects (1 unit)*** courses are select projects classes that offer an opportunity for student to hone their skills in a lab environment. These courses come together to give the program both breadth and depth in the Auto Body Technology industry.

The currency of the Auto Body Technology curriculum is maintained by the dedication of the instructors and the stewardship of the Advisory Committee Members. The Auto Body Technology Lead Instructor has used the recommendations of the Advisory Members to improve the program currency by tool/equipment updates as well as instructor training. The program has purchased a new Chief Goliath frame machine; two computerized frame measuring systems and many professional grade hand and power tools from Snap-On and Matco. These funds were requested through the annual CTEA process with reports highlighting the need and use of these items and how it would strengthen the program through improved technology and equipment. The advisory committee members recommended the new paint booth for the Measure I building project for Industrial Technology. Those recommendations were written into the specifications for the new booths. The Advisory Committee members also recommended updated training for the instructor on waterborne paint refinishing, which was completed by Eric Mason in December 2013. The program uses up-to-date textbooks and current PowerPoint's and smart podium technology in the lecture portion of the curriculum. With the combination of the lab and lectures, the Auto Body Technology Program strives to maintain currency of both curriculum and technology developments.

The classes offered in the Auto Body Technology Program give the students an understanding of the overall process of the collision repair industry and allow them the opportunity to choose where they will fit into the workforce. It will be the choice of the student what type of work fits them best with job choices such as: body technician, painter, estimator, insurance adjustor, and shop owner, or to continue their education and perhaps teach college. Questions to ask include: *Will they work in collision repair? What type of shop will it be: Custom, restoration or something entirely different? What is really important is that the program has given the students basic tools that will allow them entrance into the auto repair industry and a chance to succeed in life.* Progressing through this program builds confidence, self-worth, discipline, perseverance and pride in workmanship. It builds the soft skills as well as the technical skills needed in the Auto Repair

industry. In the trade of Auto Body Technology, each step in the repair process by itself is not difficult. The difficulty lies in that each step must be done to perfection and put in the right order to be successful. On a big job this could be hundreds of steps put together into a multi-faceted process. These skills will benefit a student regardless of the career path ultimately chosen.

To keep current with the industry, Eric Mason has completed the following:

a. **Training at DuPont Center, Pomona, CA, December 2013**. To learn about water born paint. This three-day training focused on new technologies that enabled the department to upgrade from solvent to waterborne based with the new downdraft paint booths.

b. **Teacher Externship**, Summer 2013 to work in a local business (Foster's) and learn new industry techniques as well as help develop tools to instruct students on quoting jobs.

c. **Updated curriculum**, ongoing. The instructors use Power Point, video, textbooks, and lab projects to teach the skills needed for this industry.

d. **Industry partners and placement of students in jobs,** Ongoing. This past year, we have added a component in the AB 360: Collision Repair (5 units) class with students working closely with the Career, Jobs and Placement Center (CJPC) to develop resumes and sign up for the job board. One class session took place in the CJPC lab to work with their counselors and use the resume template. Also through CTEA funds, one graduate, Caitlyn Ortiz, of the Auto Body and Auto Technology programs, took two days off from her job in San Diego at Caliper Collision, a high volume body shop, to speak to AHC students about her education, finding a job and industry standards. This successful speaking event took place September 2014 and Catylin spoke to ten classes with about 175 students. We hope to continue this practice with CTEA funds each year.

VI. Long-Term Program Goals and Action Plans (Aligned With the College Educational Master Plan)

Describe the long-term plans for changing or developing new courses and programs, other actions being taken to enhance student success, and the need for professional development

activities and other resources to implement program goals. Be sure to show how these plans are related to assessment results. (Plan should cover five-year period and include target dates and resources needed.)

The long term plan of the Auto Body Technology Program is to continue updating the AB 358 Paint Class to provide more exposure to water born urethane painting, which is becoming the industry standard in Santa Barbara County. The fulltime instructor continues to refresh his skills by attending industry classes in refinishing as well as pedagogy and leadership. Eric Mason has completed the AHC Leadership training (2013-2014) and attends all Department Chairs meetings. Additional resources are needed for travel to conferences; continuing industry training (such as waterborne paint techniques) and industry trends and regulations. The Auto Body budget will need to be increased to offer AHC students more exposure to the increasing techniques to spray painting and adequately prepare them for entering the job market in the Auto Body and Collision industry.

Data analysis is a critical component of program review. The three categories below should be used as guidelines in developing a summary of the student data.

NOTE: **The following statements are based on a Likert Scale of 1 (highly satisfied) to 5 (not satisfied at all) from the Program Review Class Climate evaluation provided by IRP on October 27, 2014.**

State at least three positive factors about the discipline/program identified by students. Include the number (or percentage) of students responding and any implications for planning.

- Out of the 62 responses on question #1 regarding the quality of the instruction of the program, the average response was 1.42 between highly satisfied and satisfied (scale 1 to 5). This is the result of the two instructors who have many years of experience.

- Out of the 60 responses on question #9 regarding the content of the courses offered in the Auto Body program the average response was 1.94. The program offers several certificates and an associate's degree and

because of strong advisory committee involvement keeps current with industry standards as well as using student learning outcomes and assessments to determine student learning.

- Out of the 55 responses on question #10 regarding coordinating courses in Auto Body and other programs in Industrial Technology the average response was 1.64. The department has seven programs on campus as well as coordinates the three apprenticeship programs off site. All instructors work well together and students understand the benefits of cross curricular learning.

State at least three negative factors about the discipline/program identified by students. Include the number (or percentage) of students responding and any implications for planning.

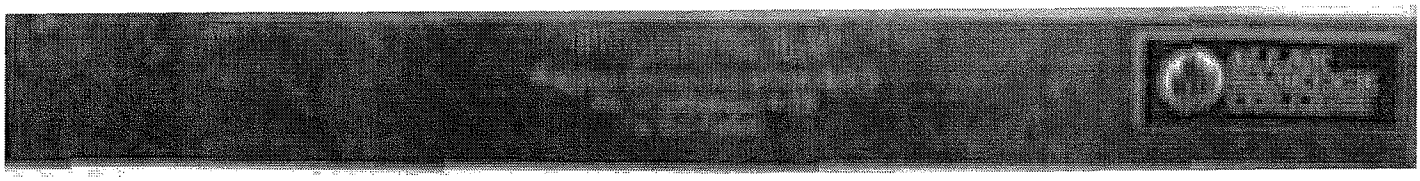
- Out of the 54 responses on question 3 the average rating of 2.02 shows a possible disconnect between counselors and the program with only 5.1% of the responses in the Auto Body program due to the recommendation of a school counselor. The Industrial Technology department does a lot of outreach in area high schools and middle schools and yet, one of our biggest obstacles may be our own counseling department. To help that situation, we invited 45 counselors for a tour of our new building earlier this school year and continue to participate on the Career Day planning committee and offer tours and program summaries at every opportunity. We believe that the Auto Body program, along with the other six programs in the Industrial Technology Department would benefit from a dedicated Career Technical Education (CTE) counselor. This would be someone who is familiar, interested and an advocate of the high skill, high wage and high demand careers that we train our students for.

- There is room for improvement on the offering of courses in the program and in other departments for Associate Degrees and certificates as evidenced by the 55 responses that averaged 1.634 on course assistance at Allan Hancock College. We will work on better coordination between other programs in the department and overlap of classes needed for completion of certificates and degrees.

- The Auto Body Technology program can use better library resources and tutorial services as shown in the 50 responses that rated "availability of appropriate resources in libraries" at 1.64.

State any other information (use responsive numbers) that you obtained from student data (e.g. focus groups, questionnaires, or SGIDs) that may be of special interest to the self-study team. What planning implications will result from this information?

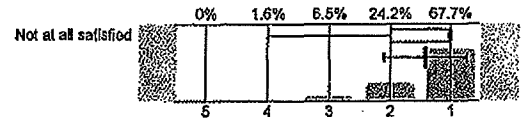
- The results of the survey are positive in the fact that over 72% of the students attitudes have improved since the beginning of the semester and 62 respondents rate 1.29 that they would recommend others taking courses in the Auto Body program. Those same 62 respondents plan on taking additional courses (average rating of 1.35) with 35.2% focused on obtaining the certificate of achievement and another 31.5% are interested in the associate degree, thus reflecting an interest in pursuing Auto Body as a career.



Survey Results

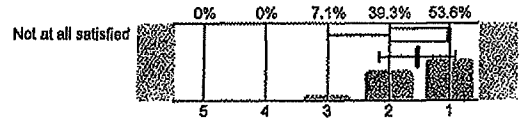
Part I - Please indicate how satisfied you are, in general, with the following aspects of the Auto Body Technology Program:

Quality of instruction within the program



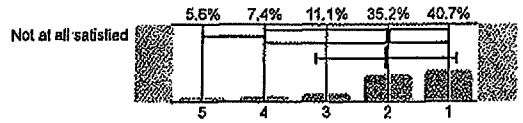
n=62
av.=1.42
md=1
dev.=0.69

The way textbooks and other materials used in courses within the program help me learn



n=56
av.=1.54
md=1
dev.=0.63

Advice about the program from counselors



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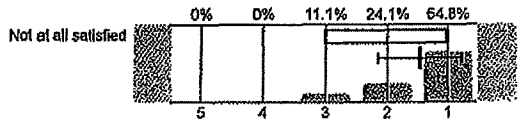
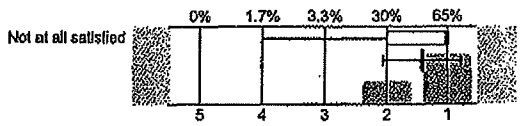
av.=2.02
md=2
dev.=1.16
ab.=8

The way this program meets your educational goals



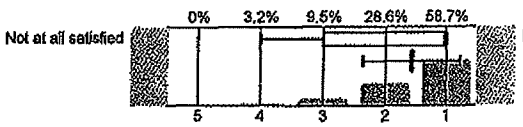
n=54
av.=1.46
md=1
dev.=0.69

Contribution towards your career skill growth



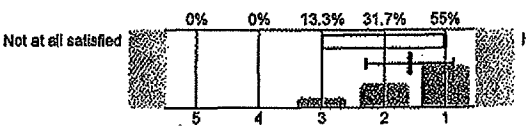
n=60
av.=1.42
md=1
dev.=0.65
ab.=1

Clarity of course goals and learning objectives



n=63
av.=1.57
md=1
dev.=0.8

Feedback and assessment of progress towards learning objectives



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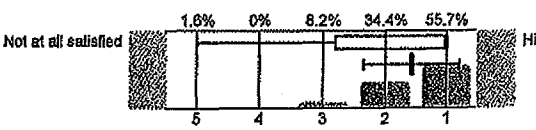
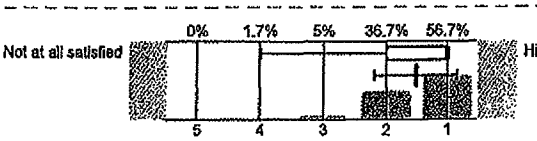
dev.=0.72

The availability of courses offered in the Auto Body Technology Program



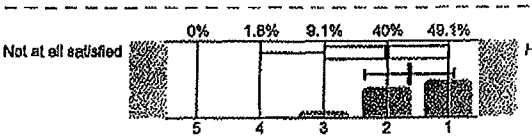
n=61
av.=1.57
md=1
dev.=0.78

The content of courses offered in the Auto Body Technology Program



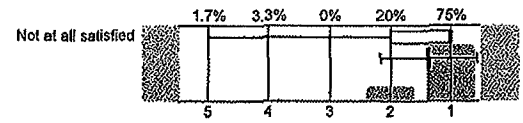
n=60
av.=1.52
md=1
dev.=0.68

The coordination of courses offered in the Auto Body Technology Program and courses offered in other departments that may be required for your major



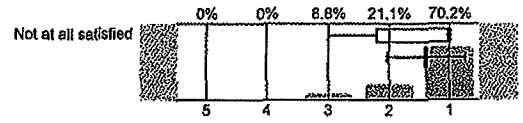
n=55
av.=1.64
md=2
dev.=0.73
ab.=1

The physical facilities and space (e.g., classrooms, labs)



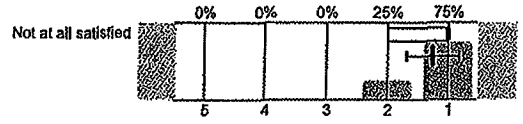
n=60
av.=1.37
md=1
dev.=0.8

Instructional equipment (e.g., computers, lab equipment)



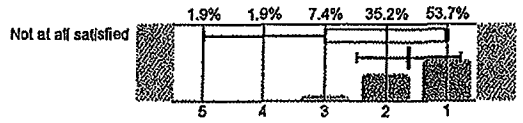
n=57
av.=1.39
md=1
dev.=0.65
ab.=1

Quality of instructors knowledge within the industry



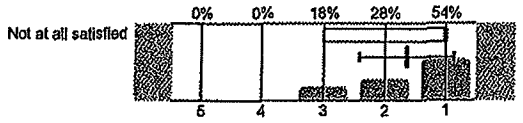
n=60
av.=1.25
md=1
dev.=0.44

Course assistance through tutorial services (e.g through the Tutorial Center, Math Lab, Writing Center)



n=54
av.=1.63
md=1
dev.=0.85
ab.=5

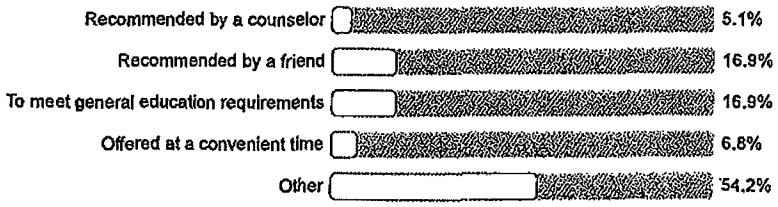
Availability of appropriate resources in the libraries



n=50
av.=1.64
md=1
dev.=0.78
ab.=10

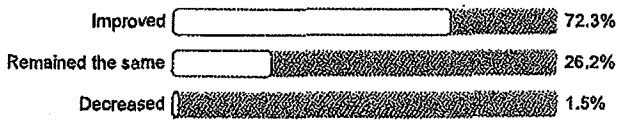
Part II: Please answer the following questions about the Auto Body Technology Program.

Which of the following best describes your reason for taking this and other courses in the Auto Body Technology Program?



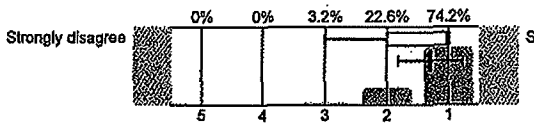
n=59

Compared to the beginning of the semester, your attitude about the Auto Body Technology Program has



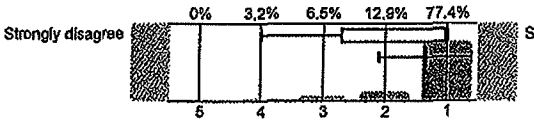
n=65

I would recommend taking courses in the Auto Body Technology Program.



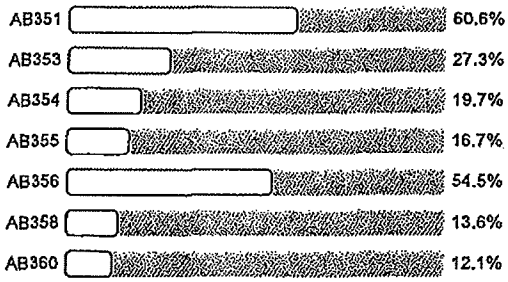
n=62
av.=1.29
md=1
dev.=0.52

I plan on taking additional courses in the Auto Body Technology Program.



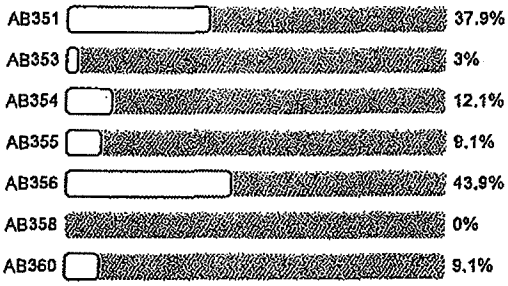
n=62
av.=1.35
md=1
dev.=0.75

Which of the following courses have you taken in the Auto Body Technology Program?



n=66

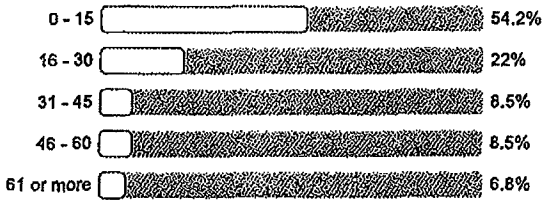
In which of the following courses are you currently enrolled?



n=66

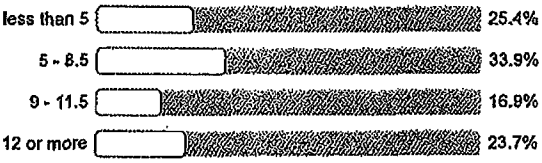
Part III: Background Questions

How many units have you completed prior to this semester?



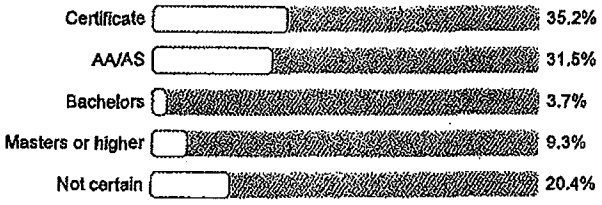
n=59

In how many units are you currently enrolled?



n=59

What is your final academic goal?



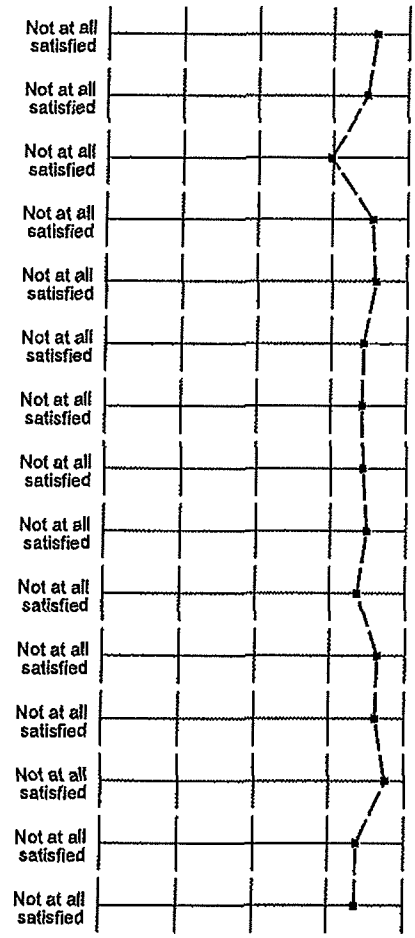
n=54

Profile

Subunit: IR General Surveys
Name of the instructor: Program Review
Name of the course: (Name of the survey) Program Review Paper Surveys

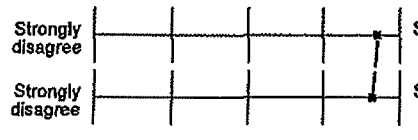
Values used in the profile line: Mean

Part I. Please indicate how satisfied you are, in general, with the following aspects of the Auto Body Technology Program

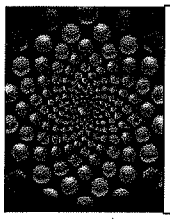


Quality of instruction within the program	Not at all satisfied	Highly satisfied	n=62	av.=1.42	md=1.0 dev.=0.69
The way textbooks and other materials used in courses within the program help me learn	Not at all satisfied	Highly satisfied	n=56	av.=1.54	md=1.0 dev.=0.63
Advice about the program from counselors	Not at all satisfied	Highly satisfied	n=54	av.=2.02	md=2.0 dev.=1.16
The way this program meets your educational goals	Not at all satisfied	Highly satisfied	n=54	av.=1.46	md=1.0 dev.=0.69
Contribution towards your career skill growth	Not at all satisfied	Highly satisfied	n=60	av.=1.42	md=1.0 dev.=0.65
Clarity of course goals and learning objectives	Not at all satisfied	Highly satisfied	n=63	av.=1.57	md=1.0 dev.=0.80
Feedback and assessment of progress towards learning objectives	Not at all satisfied	Highly satisfied	n=60	av.=1.58	md=1.0 dev.=0.72
The availability of courses offered in the Auto Body Technology Program	Not at all satisfied	Highly satisfied	n=61	av.=1.57	md=1.0 dev.=0.78
The content of courses offered in the Auto Body Technology Program	Not at all satisfied	Highly satisfied	n=60	av.=1.52	md=1.0 dev.=0.68
The coordination of courses offered in the Auto Body Technology Program and courses offered in other departments that may be required for your	Not at all satisfied	Highly satisfied	n=55	av.=1.64	md=2.0 dev.=0.73
The physical facilities and space (e.g., classrooms, labs)	Not at all satisfied	Highly satisfied	n=60	av.=1.37	md=1.0 dev.=0.80
Instructional equipment (e.g., computers, lab equipment)	Not at all satisfied	Highly satisfied	n=57	av.=1.39	md=1.0 dev.=0.65
Quality of instructors knowledge within the industry	Not at all satisfied	Highly satisfied	n=60	av.=1.25	md=1.0 dev.=0.44
Course assistance through tutorial services (e.g through the Tutorial Center, Math Lab, Writing Center)	Not at all satisfied	Highly satisfied	n=54	av.=1.63	md=1.0 dev.=0.85
Availability of appropriate resources in the libraries	Not at all satisfied	Highly satisfied	n=50	av.=1.64	md=1.0 dev.=0.78

Part II. Please answer the following questions about the Auto Body Technology Program



I would recommend taking courses in the Auto Body Technology Program.	Strongly disagree	Strongly agree	n=62	av.=1.29	md=1.0 dev.=0.52
I plan on taking additional courses in the Auto Body Technology Program.	Strongly disagree	Strongly agree	n=62	av.=1.35	md=1.0 dev.=0.75



ASSESSMENT SCHEDULE

6 Year

AHC Program Student Learning Outcomes

6 Year Assessment Schedule

The attached template provides a framework for a program/discipline to plan a 6 year schedule for assessing its student learning outcomes, completing the SLO assessment cycle and attaining the status of ***sustainable continuous quality improvement*** in institutional effectiveness. This plan may be updated over the next 6 years as new contingencies or interpretations arise.

PROGRAM: **Auto Body and Collision Repair**

Our program is pleased to present our ***plan*** to: assess our SLOs, review the results of that assessment; and discuss changes to our curriculum, pedagogy or operations based on the results.

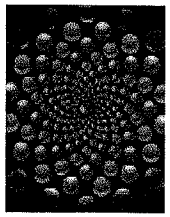
Program/ discipline coordinator or team leader — Eric Mason (Name) — Signature — 6/9/15 (Date)

I have reviewed this plan and agree that it provides sufficient detail and is a feasible approach to comprehensively assess the program SLOs.

Department chair — Eric Mason (Name) — Signature — 6/9/15 (Date)

I have reviewed this plan and agree that it provides sufficient detail and is a feasible approach to comprehensively assess the program SLOs.

Dean — Larissa Nazarenko (Name) — Signature — 6/8/15 (Date)



ASSESSMENT SCHEDULE **6 Year** Fall 14 – Spring 20	**Program: Automotive Body and Collision Repair**	page __1__ of ___5__

Use one row for each Program and Course SLO

SLO	To be assessed in semester:	Assessment method (s)	Team to review assessment results	Resources needed to conduct assessment	Individual responsible for assessment report	Date we expect to complete review
AB 351 SLO1 – Identify the correct tools and equipment for sheet metal and collision repair.	Spring 15 Fall 17 Spring 20	Homework Score	Program SLOs Coordinator, FT Faculty, Instructor	None	Instructor of Record for that semester	
AB 351 SLO2 – Understand the need for career training pertaining to job success and ethics.	Fall 15 Spring 18 Fall 20	Quiz	Program SLOs Coordinator, FT Faculty, Instructor	None	Instructor of Record for that semester	
AB 351 SLO3 – Repair a dent by roughing out, straightening, and finishing meeting industry standards.	Spring 16 Fall 18 Fall 20	Lab Notebook/ Observation	Program SLOs Coordinator, FT Faculty, Instructor	None	Instructor of Record for that semester	
B 351 SLO4 – Apply good work habits and safety practices.	Fall 16 Spring 19	Safety Exam	Program SLOs Coordinator, FT Faculty, Instructor	None	Instructor of Record for that semester	
AB 351SLO5 – Understand the steps needed to correct sheet metal damage and apply plastic filler.	Spring 17 Fall 19	Lab Notebook/ Observation	Program SLOs Coordinator, FT Faculty, Instructor		Instructor of Record for that semester	

AB 353 SLO2 – Use and set up computerized measuring system to determine frame damage.	Spring 16 Spring 21	Lab Observation	Program SLOs Coordinator, FT Faculty, Instructor	AV equipment to record student lab work	Instructor of Record for that semester	
AB 353 SLO3 – Properly secure a vehicle to the frame rack and make pulls needed to correct frame misalignment.	Spring 17	Lab Observation	Program SLOs Coordinator, FT Faculty, Instructor	AV equipment to record student lab work	Instructor of Record for that semester	
AB 353 SLO4 – Choose and use the correct tools and equipment for each phase of body and frame alignment /repair.	Spring 18	Homework Score	Program SLOs Coordinator, FT Faculty, Instructor	None	Instructor of Record for that semester	
AB 353 SLO5 – Use manufacture's specifications to correct structural frame damage.	Spring 19	Team Lab Exercise	Program SLOs Coordinator, FT Faculty, Instructor	AV equipment to record student lab work	Instructor of Record for that semester	
Automotive Refinishing 358						
AB 358 SLO1 - Analyze body surface problems and determine measures to take in alleviating them.	Spring 15 Spring 20	Quiz	Program SLOs Coordinator, FT Faculty, Instructor	None	Instructor of Record for that semester	
AB 358 SLO2 – Use good work habits and safety practices.	Spring 16 Spring 21	Lab Observation	Program SLOs Coordinator, FT Faculty, Instructor	AV equipment to record student lab work	Instructor of Record for that semester	
AB 358 SLO3 – Produce a vehicle paint job in accordance with accepted industry practices and procedures.	Spring 17	Lab Observation/ Lab Notebook	Program SLOs Coordinator, FT Faculty, Instructor	Paint materials required to paint a vehicle or parts	Instructor of Record for that semester	
AB 358 SLO4 – Choose the correct equipment, tools, and materials to properly prepare and paint a vehicle	Spring 18	Homework Score	Program SLOs Coordinator, FT Faculty, Instructor	None	Instructor of Record for that semester	
AB 358 SLO5 – Understand the theory of paint color matching.	Spring 19	Mid-Term Essay Question	Program SLOs Coordinator, FT Faculty, Instructor	None	Instructor of Record for that semester	

Collision Repair AB 360						
AB 360 SLO1 – Evaluate major damage and repair strategies using frame measurements to determine repair procedures.	Fall15	Lab Observation/ Lab Notebook	Program SLOs Coordinator, FT Faculty, Instructor	AV equipment to record student lab work	Instructor of Record for that semester	
AB 360 SLO2 – Develop MIG welding theory and skills needed in the collision industry.	Fall 16	Lab Skills Test	Program SLOs Coordinator, FT Faculty, Instructor	Test plates and MIG gas and wire	Instructor of Record for that semester	
AB 360 SLO3 – Develop commercially acceptable refinishing skills. AB 360 SLO4 – Understand all major components of a vehicle.	Fall 17 Fall 18	Lab Observation/ Lab Notebook Final Exam	Program SLOs Coordinator, FT Faculty, Instructor Program SLOs Coordinator, FT Faculty, Instructor	Paint and practice panels None	Instructor of Record for that semester Instructor of Record For that semester	
AB 360 SLO 5 – Produce commercially acceptable skills and speed in workmanship.	Fall 19	Lab Observation/ Lab Notebook	Program SLOs Coordinator, FT Faculty, Instructor	AV equipment to record student lab work	Instructor of Record for that semester	
Select Auto Body Paint Projects 354						
AB 354 SLO1 – Prepare and follow through to completion a pre-defined project.	Spring 15, 16, 17, 18, 19, 20, 21	End of Semester Essay	Program SLOs Coordinator, FT Faculty, Instructor	None	Instructor of Record for that semester	
AB 354 SLO2 – Use a variety of shop equipment safely as he/she would be required to do on an actual job.	Fall 15, 16, 17, 18, 19, 20, 21	Lab Observation	Program SLOs Coordinator, FT Faculty, Instructor	None	Instructor of Record for that semester	

Selected Auto Body Metal Projects 355						
AB 355 SLO1 – Prepare and follow through to completion a pre-defined project.	Spring 15, 16, 17, 18, 19, 20, 21	End of Semester Essay	Program SLOs Coordinator, FT Faculty, Instructor		Instructor of Record for that semester	
AB 355 SLO2 – Use a variety of shop equipment safely as he/she would be required to do on an actual job.	Fall 15, 16, 17, 18, 19, 20, 21	Lab Observation	Program SLOs Coordinator, FT Faculty, Instructor	None	Instructor of Record for that semester	

Section 2

EXHIBITS

Course Review Verification and Summary Sheet

Student Data

Statistics

Student Learning Outcomes Data

Pre-Validation Plan of Action

COURSE REVIEW VERIFICATION

Discipline: Auto Body Collision Year: 2015

Program/Discipline Auto Body Collision

As part of the program evaluation process, the self-study team has reviewed the course outlines supporting the discipline/program curriculum. The review process has resulted in the following recommendations:

1. The following course outlines are satisfactory as written and do not require modification (list all such courses):

2. The following courses require minor modification to ensure currency. It is anticipated that such minor modifications will be completed by 2016.
   AB 351, AB 353, AB 354, AB 355, AB 356, AB 358, and AB 360

3. The following courses require major modification.

   The self-study team anticipates submitting such modifications to the AP&P committee, Fall 2015 to Spring 2016

GENERAL EDUCATION or MULTICULTURAL/GENDER COURSES
The following courses were also reviewed as meeting an **AHC general education** requirement and were found to satisfactorily meet the established criteria (list courses by prefix & number):
(date) _____

The following courses were also reviewed as meeting the **multicultural/gender graduation requirements** and will require modification to ensure the content reflects compliance with category definitions (list courses by prefix & number):

The following courses were also reviewed as meeting the **multicultural/general graduation requirements** and will require modification to ensure the content reflects compliance with category definitions (list courses prefixes & number). It is anticipated that such a modification will be completed by:
(date) _____

Course review Team Members:

Signature 6/9/15
Signature Date

_____
Signature Date

_____
Signature Date

_____
Signature Date

Signature 6/8/15
Signature Academic Dean Date

Auto Body Collision

REVIEW OF PREREQUISITES, COREQUSITES, AND ADVISORIES

Course Prefix No	**CURRENT**	**LEVEL OF SCRUTINY**	**RESULTS**	**ACTION TO BE TAKEN** (none, APP – Major or Minor)
AB 351	None	Program Alignment		Minor modification
AB 353	Pre: AB 351	Program Alignment	Pre: AB 351	Minor modification
AB 354	Pre: AB 356	Program Alignment	Pre: AB 356	Minor modification
AB 355	Pre: AB 351	Program Alignment	Pre: AB 351	Minor modification
AB 356	None	Program Alignment		Minor modification
AB 358	Pre: AB 356	Program Alignment	Pre: AB 356	Minor modification
AB 360	Pre: AB 353	Program Alignment	Pre: AB 353	Minor modification

Date BOT Approved: _____
Date Reviewed: Fall 2012
Date Reviewed: Fall 2009
PCA Established: _____
Date DL Conversion Approved _____

ALLAN HANCOCK COLLEGE
COURSE OUTLINE

DISCIPLINE: Auto Body Technology
Please refer to the disciplines list located in the Minimum Qualifications Handbook developed by the Academic Senate of California Community Colleges.

DEPARTMENT: **INDUSTRIAL TECHNOLOGY**

PREFIX & NUMBER: AB 351

CATALOG COURSE TITLE: Auto Body Metal

BANNER COURSE TITLE: Auto Body Metal

UNITS: 3

TOTAL NUMBER OF CONTACT HOURS: 96-108

	Hours per week (based on 16 weeks)	Total Hours per Term (range based on 16-18 weeks)	Units
Lecture:	2	32 - 36	2
Lab:	4	64 - 72	1
Total Contact Hours:	6	96 - 108	3

GRADING OPTION: Letter Grade or Pass/No Pass Option

PREREQUISITE(S): None

COREQUISITE(S): None

ADVISORY(IES): None

LIMITATION ON ENROLLMENT: (*Some common limitations on enrollment are: a requirement to pass a tryout prior to being enrolled in an athletic course or team, or physical requirement where the student's safety would be compromised by an inability* to *meet specific physical capabilities.)*
None

PREREQUISITE SKILLS (*The course outline must document entry skills without which student success is highly unlikely. Must be included if the course* has *a prerequisite.)*
Upon entering this course, the student should be able to:
None (no prerequisite for this course)

ADVISORY SKILLS *(For advisories, the course outline must document entry skills which are either necessary but are likely to be obtained by other means or, while not necessary, would broaden or enhance student learning but are not fundamental to student success.)*

Upon entering this course, the advisory skills are to:

None (no advisory for this course)

CATALOG DESCRIPTION

The catalog description could begin with a short paragraph (course description) that provides a well-developed overview of topics covered. Some suggested language is:

- *Identification of the target audience depending on whether the course is required for the major, degree or certificate, transfer, etc., that will assist students in their educational planning.*
- *Prerequisites, corequisites, advisories and/or limitations on enrollment.*
- *Designation of course repeatability.*
- *Lecture/lab/activity/studio hours and units.*
- *Field trip potential or other requirements that may impose a logistical or fiscal burden upon the students should be included along with an option for alternatives.*

This course is designed to give students a basic knowledge of auto body metal repair, which includes metal finishing and plastic filler application.

COURSE CONTENT *(Indicate all major topics to be covered and approximate number of weeks for each, based on 16 weeks. If the course works on hours, rather than weeks, include the number of hours to cover each of the topics for the course.)*

	WEEKS
1. Safety	2
2. Hand Tool Technology	1
3. Classifying Sheet Metal Damage	1
4. Metal Straightening Techniques	1
5. Metal Heat Shrinking	1
6. Mid-Term Review	2
7. Plastic Filler Application	1
8. Rust Repair	1
9. Vehicle Construction	1
10. Job Success and Ethics	1
11. Job Skill Techniques	1
12. Skills Assessment	1
13. End of Semester Review	2

COURSE OBJECTIVES:

At the end of the course, the student will be able to:

1. Identify commonly used auto collision repair tools and equipment.
2. Apply good work habits and safety practices.
3. Analyze types of sheet metal damage and the direction of impact.

4. Demonstrate proper hammer and dolly technique of sheet metal repair.
5. Understand the basic theory of auto body metal repair.
6. Develop skills involved with the repair of a simple dent.

METHODS OF INSTRUCTION *(Types and/or methods or instruction are required. The course outline may show one or more teaching patterns. However, instructors have the freedom to choose how they will achieve course objectives.)*

Methods of Instruction
1. Lecture presentations and classroom discussions. 2. Video and audio presentations followed by group discussion. 3. Instructor-guided individual and group projects using conventional auto body repair equipment. 4. Presentations of individual and group projects followed by in-class discussion and evaluation.

OUTSIDE ASSIGNMENTS *(Assignment examples, if provided, should reflect coverage of all objectives and course content. Assignments can include supplemental reading materials beyond the required texts. The initiator should give the basis for grading, and relate assignments to skills and abilities listed in the objectives.)*

Outside Assignments
1. Students will complete eight homework/quiz assignments. 2. Students will use Internet to research auto body technician employment opportunities 3. Student will visit a commercial auto body repair establishment and report on their observations

METHODS OF EVALUATION *(List or describe the types and/or methods of evaluation. The course outline should describe the basis for grading or other evaluations, and relate the methods of evaluation to skills and abilities in the course objectives.).*

Methods of Evaluation
1. Mastery of course content is measured by objective type tests; quizzes, homework, mid-term, final exams, and job sheet lab performance. 2. Attitude, effort, and cooperative ability as demonstrated in the classroom and lab. 3. Attendance, students ability to attend class prepared and on time. 4. Evaluate proper safety and work habits. 5. Quality and quantity of lab work performed.

REQUIRED TEXTS AND OTHER INSTRUCTIONAL MATERIALS

- *This field includes the text (and when possible, with date of publication) and other*

instructional materials.

- *Text and other learning materials may have external requirements due to articulation requirements or certification requirements found in many programs.*
- *This section only contains that which is required for the student to be able to effectively participate in and successfully pass the course.*
- *Assignments specific to required reading and instructional materials should be given in the form of examples, where possible.*

Adopted Text: Duffy, J. E. Auto Body Repair Technology, 2009 Fifth edition

Supplemental Readings and/or Other Materials:
Students are required to supply their own paint and sandpaper in this class.

STUDENT LEARNING OUTCOMES

In this section, the initiator is to list the current course Student Learning Outcomes (SLOs). The outcomes may be revised as part of the program review annual update process, but is not done using this form. For new courses, the SLOs must be defined and need to be mapped to the program and institutional learning outcomes. Please contact Institutional Research and Planning (IRP) for assistance with new or modified SLOs.

1. Identify commonly used auto collision repair tools and equipment.
2. Apply good work habits and safety practices.
3. Analyze types of sheet metal damage and the direction of impact.
4. Demonstrate proper hammer and dolly technique of sheet metal repair.
5. Understand the basic theory of auto body metal repair.
6. Develop skills involved with the repair of a simple dent.

Date Prepared: Fall 1994
Date Reviewed: Fall 2012
Date Reviewed: Fall 2009
PCA Established: Spring 1995
Date DL Conversion Approved

ALLAN HANCOCK COLLEGE
COURSE OUTLINE

DISCIPLINE: Auto Body Technology
Please refer to the disciplines list located in the Minimum Qualifications Handbook developed by the Academic Senate of California Community Colleges.

DEPARTMENT: INDUSTRIAL TECHNOLOGY

PREFIX & NUMBER: AB 355

CATALOG COURSE TITLE: Selected Auto Body Metal Projects

BANNER COURSE TITLE: Selected Auto Body Metal Projects

UNITS: 1

TOTAL NUMBER OF CONTACT HOURS: 48-54

	Hours per week (based on 16 weeks)	Total Hours per Term (range based on 16-18 weeks)	Units
Lecture:	0	0 - 0	0
Lab:	3	48 - 54	1
Total Contact Hours:	3	48 - 54	1

GRADING OPTION: Letter Grade or Pass/No Pass Option

PREREQUISITE(S): AB 351

COREQUISITE(S): None

ADVISORY(IES): None

LIMITATION ON ENROLLMENT: (*Some common limitations on enrollment are: a requirement to pass a tryout prior to being enrolled in an athletic course or team, or physical requirement where the student's safety would be compromised by an inability* to *meet specific physical capabilities.)*
None

PREREQUISITE SKILLS (*The course outline must document entry skills without which student success is highly unlikely. Must be included if the course* has *a prerequisite.)*
Upon entering this course, the student should be able to:

1. Identify commonly used auto collision repair tools and equipment.
2. Apply good work habits and safety practices.
3. Analyze types of sheet metal damage and the direction of impact.
4. Demonstrate proper hammer and dolly technique of sheet metal repair.
5. Understand the basic theory of auto body metal repair.

6. Develop skills involved with the repair of a simple dent.

ADVISORY SKILLS *(For advisories, the course outline must document entry skills which are either necessary but are likely to be obtained by other means or, while not necessary, would broaden or enhance student learning but are not fundamental to student success.)*

Upon entering this course, the advisory skills are to:

None (no advisory for this course)

CATALOG DESCRIPTION

The catalog description could begin with a short paragraph (course description) that provides a well-developed overview of topics covered. Some suggested language is:

- *Identification of the target audience depending on whether the course is required for the major, degree or certificate, transfer, etc., that will assist students in their educational planning.*
- *Prerequisites, corequisites, advisories and/or limitations on enrollment.*
- *Designation of course repeatability.*
- *Lecture/lab/activity/studio hours and units.*
- *Field trip potential or other requirements that may impose a logistical or fiscal burden upon the students should be included along with an option for alternatives.*

Projects selected by the student and developed under the direct supervision of instructional staff in the auto collision disciplines. Work is completed under the supervision of the responsible instructor in the auto body lab. The student must have the basic knowledge of painting techniques to complete the project.

COURSE CONTENT *(Indicate all major topics to be covered and approximate number of weeks for each, based on 16 weeks. If the course works on hours, rather than weeks, include the number of hours to cover each of the topics for the course.)*

	WEEKS
1. Body Alignment	3
2. Sheet Metal Welding	3
3. Uni-Spotter Sheet Metal Repair	3
4. Rust Repair	2
5. Filler Application and Blocking	2
6. Masking and Applying Primer	3

COURSE OBJECTIVES:

At the end of the course, the student will be able to:

1. Use a verity of shop equipment, and use proper safety while working in the lab.
2. Use correct repair procedures in accordance with industry standards.
3. Apply and enhance trade skills and speed.
4. Construct and finish a project using the auto body shop facility.

METHODS OF INSTRUCTION *(Types and/or methods or instruction are required. The course outline may show one or more teaching patterns. However, instructors have the freedom to choose how they will achieve course objectives.)*

Methods of Instruction
1. Instructor-guided individual and group projects using conventional auto body repair equipment.

OUTSIDE ASSIGNMENTS *(Assignment examples, if provided, should reflect coverage of all objectives and course content. Assignments can include supplemental reading materials beyond the required texts. The initiator should give the basis for grading, and relate assignments to skills and abilities listed in the objectives.)*

Outside Assignments
n/a

METHODS OF EVALUATION *(List or describe the types and/or methods of evaluation. The course outline should describe the basis for grading or other evaluations, and relate the methods of evaluation to skills and abilities in the course objectives.).*

Methods of Evaluation
1. Mastery of course content is measured by lab performance. 2. Attitude and effort are measured by student self-assessment essay. 3. Attendance, students ability to attend class prepared and on time. 4. Evaluate proper safety and work habits. 5. Quality and quantity of lab work performed.

REQUIRED TEXTS AND OTHER INSTRUCTIONAL MATERIALS

- *This field includes the text (and when possible, with date of publication) and other instructional materials.*
- *Text and other learning materials may have external requirements due to articulation requirements or certification requirements found in many programs.*
- *This section only contains that which is required for the student to be able to effectively participate in and successfully pass the course.*
- *Assignments specific to required reading and instructional materials should be given in the form of examples, where possible.*

Adopted Text: Duffy, J. E. Auto Body Repair Technology. 2009 Fifth edition

Supplemental Readings and/or Other Materials:
Students are required to supply their own paint and sandpaper in this class.

STUDENT LEARNING OUTCOMES

In this section, the initiator is to list the current course Student Learning Outcomes (SLOs). The outcomes may be revised as part of the program review annual update process, but is not done using this form. For new courses, the SLOs must be defined and need to be mapped to the program and institutional learning outcomes. Please contact Institutional Research and Planning (IRP) for assistance with new or modified SLOs.

1. Use a verity of shop equipment, and use proper safety while working in the lab.
2. Use correct repair procedures in accordance with industry standards.
3. Apply and enhance trade skills and speed.
4. Construct and finish a project using the auto body shop facility.

Date BOT Approved: _____
Date Reviewed: Fall 2012
Date Reviewed: Fall 2009
PCA Established: _____
Date DL Conversion Approved _____

ALLAN HANCOCK COLLEGE
COURSE OUTLINE

DISCIPLINE: Auto Body Technology
Please refer to the disciplines list located in the Minimum Qualifications Handbook developed by the Academic Senate of California Community Colleges.

DEPARTMENT: INDUSTRIAL TECHNOLOGY

PREFIX & NUMBER: AB 356

CATALOG COURSE TITLE: Automotive Painting Techniques

BANNER COURSE TITLE: Automotive Painting Techniques

UNITS: 3

TOTAL NUMBER OF CONTACT HOURS: 96-108

	Hours per week (based on 16 weeks)	Total Hours per Term (range based on 16-18 weeks)	Units
Lecture:	2	32 - 36	2
Lab:	4	64 - 72	1
Total Contact Hours:	6	96 - 108	3

GRADING OPTION: Letter Grade or Pass/No Pass Option

PREREQUISITE(S): None

COREQUISITE(S): None

ADVISORY(IES): None

LIMITATION ON ENROLLMENT: (*Some common limitations on enrollment are: a requirement to pass a tryout prior to being enrolled in an athletic course or team, or physical requirement where the student's safety would be compromised by an inability* to *meet specific physical capabilities.)*
None

PREREQUISITE SKILLS (*The course outline must document entry skills without which student success is highly unlikely. Must be included if the course* has *a prerequisite.)*
Upon entering this course, the student should be able to:
None (no prerequisite for this course)

ADVISORY SKILLS *(For advisories, the course outline must document entry skills which are either necessary but are likely to be obtained by other means or, while not necessary, would broaden or enhance student learning but are not fundamental to student success.)*
Upon entering this course, the advisory skills are to:

None (no advisory for this course)

CATALOG DESCRIPTION

The catalog description could begin with a short paragraph (course description) that provides a well-developed overview of topics covered. Some suggested language is:

- *Identification of the target audience depending on whether the course is required for the major, degree or certificate, transfer, etc., that will assist students in their educational planning.*
- *Prerequisites, corequisites, advisories and/or limitations on enrollment.*
- *Designation of course repeatability.*
- *Lecture/lab/activity/studio hours and units.*
- *Field trip potential or other requirements that may impose a logistical or fiscal burden upon the students should be included along with an option for alternatives.*

This course is designed to increase student's skill and knowledge in the areas of automotive painting techniques. Course work includes preparation of vehicle, types of equipment, characteristics of paints, and techniques of paint application.

COURSE CONTENT *(Indicate all major topics to be covered and approximate number of weeks for each, based on 16 weeks. If the course works on hours, rather than weeks, include the number of hours to cover each of the topics for the course.)*

	WEEKS
1. Safety	2
2. Refinishing Equipment	1
3. Refinishing Materials	1
4. Basic Estimating	1
5. Featheredging Techniques	1
6. Mid-Term Review	2
7. Paint Preparation	1
8. Paint Preparation Continued	1
9. Masking Techniques	1
10. Refinishing Procedures	1
11. Refinishing Procedures Continued	1
12. Skills Assessment	1
13. End of Semester Review	2

COURSE OBJECTIVES:

At the end of the course, the student will be able to:

1. Determine processes and materials needed to prepare vehicle surfaces for painting.
2. Demonstrate proper safety while working in the lab.
3. Analyze paint defects and preparation errors.
4. Use paint charts to determine the adequate mixture of various paint materials.
5. Recognize and properly use paint equipment and materials in the automotive painting industry.
6. Demonstrate the ability to repair a door ding using poly-putty and primer to achieve commercially expectable results.

METHODS OF INSTRUCTION *(Types and/or methods or instruction are required. The course outline may show one or more teaching patterns. However, instructors have the freedom to choose how they will achieve course objectives.)*

Methods of Instruction
1. Lecture presentations and classroom discussions. 2. Video and audio presentations followed by group discussion. 3. Instructor-guided individual and group projects using conventional auto body repair equipment. 4. Presentations of individual and group projects followed by in-class discussion and evaluation.

OUTSIDE ASSIGNMENTS *(Assignment examples, if provided, should reflect coverage of all objectives and course content. Assignments can include supplemental reading materials beyond the required texts. The initiator should give the basis for grading, and relate assignments to skills and abilities listed in the objectives.)*

Outside Assignments
1. Students will complete eight homework/quiz assignments. 2. Students will use Internet to research auto body technician employment opportunities 3. Student will visit a commercial auto body repair establishment and report on their observations

METHODS OF EVALUATION *(List or describe the types and/or methods of evaluation. The course outline should describe the basis for grading or other evaluations, and relate the methods of evaluation to skills and abilities in the course objectives.).*

Methods of Evaluation
1. Mastery of course content is measured by objective type tests; quizzes, homework, mid-term, final exams, and job sheet lab performance. 2. Attitude, effort, and cooperative ability as demonstrated in the classroom and lab. 3. Attendance, students ability to attend class prepared and on time. 4. Evaluate proper safety and work habits. 5. Quality and quantity of lab work performed.

REQUIRED TEXTS AND OTHER INSTRUCTIONAL MATERIALS

- *This field includes the text (and when possible, with date of publication) and other instructional materials.*
- *Text and other learning materials may have external requirements due to articulation requirements or certification requirements found in many programs.*
- *This section only contains that which is required for the student to be able to effectively participate in and successfully pass the course.*
- *Assignments specific to required reading and instructional materials should be given in the form of examples, where possible.*

Adopted Text: Duffy, J. E. Auto Body Repair Technology. 2009 Fifth edition

Supplemental Readings and/or Other Materials:

Students are required to supply their own paint and sandpaper in this class.

STUDENT LEARNING OUTCOMES

In this section, the initiator is to list the current course Student Learning Outcomes (SLOs). The outcomes may be revised as part of the program review annual update process, but is not done using this form. For new courses, the SLOs must be defined and need to be mapped to the program and institutional learning outcomes. Please contact Institutional Research and Planning (IRP) for assistance with new or modified SLOs.

1. Determine processes and materials needed to prepare vehicle surfaces for painting.
2. Demonstrate proper safety while working in the lab.
3. Analyze paint defects and preparation errors.
4. Use paint charts to determine the adequate mixture of various paint materials.
5. Recognize and properly use paint equipment and materials in the automotive painting industry.
6. Demonstrate the ability to repair a door ding using poly-putty and primer to achieve commercially expectable results.

Date BOT Approved: _____
Date Reviewed: Fall 2012
Date Reviewed: Fall 2009
PCA Established: Spring 1995
Date DL Conversion Approved _____

ALLAN HANCOCK COLLEGE
COURSE OUTLINE

DISCIPLINE: Auto Body Technology
Please refer to the disciplines list located in the Minimum Qualifications Handbook developed by the Academic Senate of California Community Colleges.

DEPARTMENT: INDUSTRIAL TECHNOLOGY

PREFIX & NUMBER: AB 358

CATALOG COURSE TITLE: Automotive Refinishing

BANNER COURSE TITLE: Automotive Refinishing

UNITS: 3

TOTAL NUMBER OF CONTACT HOURS: 96-108

	Hours per week (based on 16 weeks)	Total Hours per Term (range based on 16-18 weeks)	Units
Lecture:	2	32 - 36	2
Lab:	4	64 - 72	1
Total Contact Hours:	6	96 - 108	3

GRADING OPTION: Letter Grade or Pass/No Pass Option

PREREQUISITE(S): AB 356

COREQUISITE(S): None

ADVISORY(IES): None

LIMITATION ON ENROLLMENT: (*Some common limitations on enrollment are: a requirement to pass a tryout prior to being enrolled in an athletic course or team, or physical requirement where the student's safety would be compromised by an inability* to *meet specific physical capabilities.)*
None

PREREQUISITE SKILLS (*The course outline must document entry skills without which student success is highly unlikely. Must be included if the course* has *a prerequisite.)*
Upon entering this course, the student should be able to:

1. Determine processes and materials needed to prepare vehicle surfaces for painting.
2. Demonstrate proper safety while working in the lab.
3. Analyze paint defects and preparation errors.
4. Use paint charts to determine the adequate mixture of various paint materials.
5. Recognize and properly use paint equipment and materials in the automotive

painting industry.

6. Demonstrate the ability to repair a door ding using poly-putty and primer to achieve commercially expectable results.

ADVISORY SKILLS *(For advisories, the course outline must document entry skills which are either necessary but are likely to be obtained by other means or, while not necessary, would broaden or enhance student learning but are not fundamental to student success.)*

Upon entering this course, the advisory skills are to:

None (no advisory for this course)

CATALOG DESCRIPTION

The catalog description could begin with a short paragraph (course description) that provides a well-developed overview of topics covered. Some suggested language is:

- *Identification of the target audience depending on whether the course is required for the major, degree or certificate, transfer, etc., that will assist students in their educational planning.*
- *Prerequisites, corequisites, advisories and/or limitations on enrollment.*
- *Designation of course repeatability.*
- *Lecture/lab/activity/studio hours and units.*
- *Field trip potential or other requirements that may impose a logistical or fiscal burden upon the students should be included along with an option for alternatives.*

This course is designed to increase student's skill and knowledge in the application of preparing, masking, painting, and detailing techniques. Course work also includes restoring corrosion protection, plastic bumper repair, and custom air brush graphics.

COURSE CONTENT *(Indicate all major topics to be covered and approximate number of weeks for each, based on 16 weeks. If the course works on hours, rather than weeks, include the number of hours to cover each of the topics for the course.)*

	WEEKS
1. Safety	1
2. Corrosion Protection	1
3. Restoring Corrosion Protection	1
4. Paint Preparation	1
5. Masking Techniques	1
6. Color Matching	1
7. Plastic Bumper Repair	1
8. Mid-Term Test	1
9. Paint Detailing	1
10. Cutting and Polishing	1
11. Custom Graphic Layout	1
12. Graphics Masking Techniques	1
13. Graphics Spraying Techniques	1
14. Air Brush Panel Graphics	1
15. End of Semester Review	2

COURSE OBJECTIVES:

At the end of the course, the student will be able to:

1. Demonstrate proper safety while working in the lab.
2. Analyze body surface defects and determine correct repair procedures in

accordance with industry standards.
3. Identify proper procedures for spot and complete paint job repairs.
4. Apply proper techniques during a plastic bumper repair.
5. Demonstrate the ability to use the correct equipment, tools, and materials to prepare and paint a car correctly.
6. Apply proper techniques when painting custom graphics.

METHODS OF INSTRUCTION *(Types and/or methods or instruction are required. The course outline may show one or more teaching patterns. However, instructors have the freedom to choose how they will achieve course objectives.)*

Methods of Instruction
1. Lecture presentations and classroom discussions. 2. Video and audio presentations followed by group discussion. 3. Instructor-guided individual and group projects using conventional auto body repair equipment. 4. Presentations of individual and group projects followed by in-class discussion and evaluation.

OUTSIDE ASSIGNMENTS *(Assignment examples, if provided, should reflect coverage of all objectives and course content. Assignments can include supplemental reading materials beyond the required texts. The initiator should give the basis for grading, and relate assignments to skills and abilities listed in the objectives.)*

Outside Assignments
1. Students will complete eight homework/quiz assignments. 2. Students will use Internet to research auto body technician employment opportunities 3. Student will visit a commercial auto body repair establishment and report on their observations

METHODS OF EVALUATION *(List or describe the types and/or methods of evaluation. The course outline should describe the basis for grading or other evaluations, and relate the methods of evaluation to skills and abilities in the course objectives.).*

Methods of Evaluation
1. Mastery of course content is measured by objective type tests; quizzes, homework, mid-term, final exams, and job sheet lab performance. 2. Attitude, effort, and cooperative ability as demonstrated in the classroom and lab. 3. Attendance, students ability to attend class prepared and on time. 4. Evaluate proper safety and work habits. 5. Quality and quantity of lab work performed.

REQUIRED TEXTS AND OTHER INSTRUCTIONAL MATERIALS

- *This field includes the text (and when possible, with date of publication) and other instructional materials.*
- *Text and other learning materials may have external requirements due to articulation requirements or certification requirements found in many programs.*

- *This section only contains that which is required for the student to be able to effectively participate in and successfully pass the course.*
- *Assignments specific to required reading and instructional materials should be given in the form of examples, where possible.*

Adopted Text: Duffy, J. E. Auto Body Repair Technology. 2009 Fifth edition

Supplemental Readings and/or Other Materials:
Students are required to supply their own paint and sandpaper in this class.

STUDENT LEARNING OUTCOMES

In this section, the initiator is to list the current course Student Learning Outcomes (SLOs). The outcomes may be revised as part of the program review annual update process, but is not done using this form. For new courses, the SLOs must be defined and need to be mapped to the program and institutional learning outcomes. Please contact Institutional Research and Planning (IRP) for assistance with new or modified SLOs.

1. Demonstrate proper safety while working in the lab.
2. Analyze body surface defects and determine correct repair procedures in accordance with industry standards.
3. Identify proper procedures for spot and complete paint job repairs.
4. Apply proper techniques during a plastic bumper repair.
5. Demonstrate the ability to use the correct equipment, tools, and materials to prepare and paint a car correctly.
6. Apply proper techniques when painting custom graphics.

Date BOT Approved:
Date Reviewed: Fall 2012
Date Reviewed: Fall 2009
PCA Established: Spring 1995
Date DL Conversion Approved

ALLAN HANCOCK COLLEGE
COURSE OUTLINE

DISCIPLINE: Auto Body Technology
Please refer to the disciplines list located in the Minimum Qualifications Handbook developed by the Academic Senate of California Community Colleges.

DEPARTMENT: INDUSTRIAL TECHNOLOGY

PREFIX & NUMBER: AB 360

CATALOG COURSE TITLE: Collision Repair

BANNER COURSE TITLE: Collision Repair

UNITS: 5

TOTAL NUMBER OF CONTACT HOURS: 160-180

	Hours per week (based on 16 weeks)	Total Hours per Term (range based on 16-18 weeks)	Units
Lecture:	3	48 - 54	3
Lab:	7	112 - 126	2
Total Contact Hours:	10	160 - 180	5

GRADING OPTION: Letter Grade or Pass/No Pass Option

PREREQUISITE(S): AB 353

COREQUISITE(S): None

ADVISORY(IES): None

LIMITATION ON ENROLLMENT: (*Some common limitations on enrollment are: a requirement to pass a tryout prior to being enrolled in an athletic course or team, or physical requirement where the student's safety would be compromised by an inability* to *meet specific physical capabilities.)*
None

PREREQUISITE SKILLS (*The course outline must document entry skills without which student success is highly unlikely. Must be included if the course* has *a prerequisite.)*
Upon entering this course, the student should be able to:

1. Demonstrate proper safety while working in the lab.
2. Analyze space relationship of body components.
3. Use manufactures specifications to correct structural frame damage.
4. Use computer measuring system to diagnose frame misalignment.
5. Demonstrate the ability to use the frame rack and make corrective pulls.

6. Apply proper techniques when replacing structural panels.

ADVISORY SKILLS *(For advisories, the course outline must document entry skills which are either necessary but are likely to be obtained by other means or, while not necessary, would broaden or enhance student learning but are not fundamental to student success.)*

Upon entering this course, the advisory skills are to:

None (no advisory for this course)

CATALOG DESCRIPTION

The catalog description could begin with a short paragraph (course description) that provides a well-developed overview of topics covered. Some suggested language is:

- *Identification of the target audience depending on whether the course is required for the major, degree or certificate, transfer, etc., that will assist students in their educational planning.*
- *Prerequisites, corequisites, advisories and/or limitations on enrollment.*
- *Designation of course repeatability.*
- *Lecture/lab/activity/studio hours and units.*
- *Field trip potential or other requirements that may impose a logistical or fiscal burden upon the students should be included along with an option for alternatives.*

This course is designed to increase student's skill and knowledge in the areas of major collision repair, including vehicle construction, estimating, MIG welding, door, roof, glass, chassis, and electrical service. Students will also develop their abilities to achieve commercially acceptable speed and quality levels in auto collision repair.

COURSE CONTENT *(Indicate all major topics to be covered and approximate number of weeks for each, based on 16 weeks. If the course works on hours, rather than weeks, include the number of hours to cover each of the topics for the course.)*

	WEEKS
1. Safety	1
2. Vehicle Construction	1
3. Service Information	1
4. Welding Equipment	1
5. Welding Techniques	2
6. Mid-Term Review	2
7. Door, Roof, and Glass Service	1
8. Passenger Compartment Service	1
9. Chassis Service	1
10. Electrical Systems	1
11. Lab Projects	2
12. End of Semester Review	2

COURSE OBJECTIVES:

At the end of the course, the student will be able to:

1. Develop the advanced skills and knowledge necessary to enter and progress in the automotive collision repair trade.
2. Develop the ability to use language, mathematics, science, and drawing skills as needed to increase trade proficiency.
3. Develop the proper attitudes and work habits necessary for securing employment and advancement.

4. Develop occupational responsibilities in the ethics of the trade.
5. Learn collision estimating techniques.

METHODS OF INSTRUCTION *(Types and/or methods or instruction are required. The course outline may show one or more teaching patterns. However, instructors have the freedom to choose how they will achieve course objectives.)*

Methods of Instruction
1. Lecture presentations and classroom discussions. 2. Video and audio presentations followed by group discussion. 3. Instructor-guided individual and group projects using conventional auto body repair equipment. 4. Presentations of individual and group projects followed by in-class discussion and evaluation.

OUTSIDE ASSIGNMENTS *(Assignment examples, if provided, should reflect coverage of all objectives and course content. Assignments can include supplemental reading materials beyond the required texts. The initiator should give the basis for grading, and relate assignments to skills and abilities listed in the objectives.)*

Outside Assignments
1. Students will complete eight homework/quiz assignments. 2. Students will use Internet to research auto body technician employment opportunities 3. Student will visit a commercial auto body repair establishment and report on their observations

METHODS OF EVALUATION *(List or describe the types and/or methods of evaluation. The course outline should describe the basis for grading or other evaluations, and relate the methods of evaluation to skills and abilities in the course objectives.).*

Methods of Evaluation
1. Mastery of course content is measured by objective type tests; quizzes, homework, mid-term, final exams, and job sheet lab performance. 2. Attitude, effort, and cooperative ability as demonstrated in the classroom and lab. 3. Attendance, students ability to attend class prepared and on time. 4. Evaluate proper safety and work habits. 5. Quality and quantity of lab work performed.

REQUIRED TEXTS AND OTHER INSTRUCTIONAL MATERIALS

- *This field includes the text (and when possible, with date of publication) and other instructional materials.*
- *Text and other learning materials may have external requirements due to articulation requirements or certification requirements found in many programs.*
- *This section only contains that which is required for the student to be able to effectively participate in and successfully pass the course.*
- *Assignments specific to required reading and instructional materials should be given in the form of*

examples, where possible.

Adopted Text: Duffy, J. E. Auto Body Repair Technology. 2009 Fifth edition

Supplemental Readings and/or Other Materials:
Students are required to supply their own paint and sandpaper in this class.

STUDENT LEARNING OUTCOMES

In this section, the initiator is to list the current course Student Learning Outcomes (SLOs). The outcomes may be revised as part of the program review annual update process, but is not done using this form. For new courses, the SLOs must be defined and need to be mapped to the program and institutional learning outcomes. Please contact Institutional Research and Planning (IRP) for assistance with new or modified SLOs.

1. Develop the advanced skills and knowledge necessary to enter and progress in the automotive collision repair trade.
2. Develop the ability to use language, mathematics, science, and drawing skills as needed to increase trade proficiency.
3. Develop the proper attitudes and work habits necessary for securing employment and advancement.
4. Develop occupational responsibilities in the ethics of the trade.
5. Learn collision estimating techniques.

Date Prepared: Spring 1999
Date Reviewed: Spring 2014
Date Reviewed: Spring 2005
PCA Established: Spring 2014
Date DL Conversion Approved

ALLAN HANCOCK COLLEGE
COURSE OUTLINE

DISCIPLINE: Auto Body or Automotive or Machine Tool or Welding
Please refer to the disciplines list located in the Minimum Qualifications Handbook developed by the Academic Senate of California Community Colleges.

DEPARTMENT: INDUSTRIAL TECHNOLOGY

PREFIX & NUMBER: AB 300

CATALOG COURSE TITLE: Shop Math and Measurement

BANNER COURSE TITLE: Shop Math and Measurement

UNITS: 3

TOTAL NUMBER OF CONTACT HOURS: 48-54

	Hours per week (based on 16 weeks)	Total Hours per Term (range based on 16-18 weeks)	Units
Lecture:	3	48 - 54	3
Lab:	0	0 - 0	0
Total Contact Hours:	3	48 - 54	3

GRADING OPTION: Letter Grade or Pass/No Pass Option

PREREQUISITE(S): None

COREQUISITE(S): None

ADVISORY(IES): None

LIMITATION ON ENROLLMENT: (*Some common limitations on enrollment are: a requirement to pass a tryout prior to being enrolled in an athletic course or team, or physical requirement where the student's safety would be compromised by an inability* to *meet specific physical capabilities.)*
None

PREREQUISITE SKILLS (*The course outline must document entry skills without which student success is highly unlikely. Must be included if the course* has *a prerequisite.)*
Upon entering this course, the student should be able to:
None (no prerequisite for this course)

ADVISORY SKILLS (*For advisories, the course outline must document entry skills which are either necessary but are likely to be obtained by other means or, while not necessary, would broaden or enhance student learning but are not fundamental to student success.)*
Upon entering this course, the advisory skills are to:
None (no advisory for this course)

CATALOG DESCRIPTION

The catalog description could begin with a short paragraph (course description) that provides a well-developed overview of topics covered. Some suggested language is:

- *Identification of the target audience depending on whether the course is required for the major, degree or certificate, transfer, etc., that will assist students in their educational planning.*
- *Prerequisites, corequisites, advisories and/or limitations on enrollment.*
- *Designation of course repeatability.*
- *Lecture/lab/activity/studio hours and units.*
- *Field trip potential or other requirements that may impose a logistical or fiscal burden upon the students should be included along with an option for alternatives.*

An introduction to the mathematics used in the Industrial Technology programs. Students will learn to solve problems using fractions, decimals, percentage, ratios and basic geometric shapes. Students will learn about the Cartesian coordinate system and how to use a variety of basic and precision measuring tools from rulers and tape measures to calipers and micrometers. This course is not open to students who are enrolled in, or have received credit for AT 381, ET 381, MT 381, WLDT 381, or AT/ET/MT/WDLT 300.

COURSE CONTENT *(Indicate all major topics to be covered and approximate number of weeks for each, based on 16 weeks. If the course works on hours, rather than weeks, include the number of hours to cover each of the topics for the course.)*

	WEEKS
Basic Measuring Tools	2
Precision Measuring Tools	2
Fractions	1
Decimal Fractions	1
Percentage	2
Areas & Volumes	2
Ratio & Proportion	2
Geometric Fundamentals	2
Trigonometry at Work	2

COURSE OBJECTIVES:

At the end of the course, the student will be able to:

1. Solve problems dealing with fractions, percentage, ratios.
2. Understand and interpret decimal numbers and fractions.
3. Select the correct method for solving an applied problem using mathematics.
4. Define the properties of basic geometric shapes.
5. Identify locations using the Cartesian coordinate system.
6. Use a variety of basic and precision measuring tools.

METHODS OF INSTRUCTION *(Types and/or methods or instruction are required. The course outline may show one or more teaching patterns. However, instructors have the freedom to choose how they will achieve course objectives.)*

Methods of Instruction
1. Lecture presentations and classroom discussions. 2. Video and audio presentations followed by group discussion. 3. Instructor-guided individual and group projects.

OUTSIDE ASSIGNMENTS *(Assignment examples, if provided, should reflect coverage of all objectives and course content. Assignments can include supplemental reading materials beyond the required texts. The initiator should give the basis for grading, and relate assignments to skills and abilities listed in the objectives.)*

Outside Assignments
1. Maintain notebook on weekly class topics. 2. Use the Internet to research quality documentation. 3. Complete and submit regular worksheets. Sample Writing Assignment: In at least one paragraph, discuss the relationship between quality and documentation in manufacturing.

METHODS OF EVALUATION *(List or describe the types and/or methods of evaluation. The course outline should describe the basis for grading or other evaluations, and relate the methods of evaluation to skills and abilities in the course objectives.).*

Methods of Evaluation
1. Written examinations for textbook chapters graded for accuracy and content. 2. Notebooks graded for accuracy and content. 3. Comprehensive final exam graded for accuracy and content. Sample Essay Question: Describe the importance of sketches.

REQUIRED TEXTS AND OTHER INSTRUCTIONAL MATERIALS

- *This field includes the text (and when possible, with date of publication) and other instructional materials.*
- *Text and other learning materials may have external requirements due to articulation requirements or certification requirements found in many programs.*
- *This section only contains that which is required for the student to be able to effectively participate in and successfully pass the course.*
- *Assignments specific to required reading and instructional materials should be given in the form of examples, where possible.*

Adopted Text: Applied Mathematics, Phagan, ISBN 9781605252780, 2010, Edition 4

STUDENT LEARNING OUTCOMES

In this section, the initiator is to list the current course Student Learning Outcomes (SLOs). The outcomes may be revised as part of the program review annual update process, but is not done using this form. For new courses, the SLOs must be defined and need to be mapped to the program and institutional learning outcomes. Please contact Institutional Research and Planning (IRP) for assistance with new or modified SLOs.

1. Solve problems dealing with fractions, percentage, ratios.
2. Understand and interpret decimal numbers and fractions.
3. Select the correct method for solving an applied problem using mathematics.
4. Define the properties of basic geometric shapes.
5. Identify locations using the Cartesian coordinate system.
6. Use a variety of basic and precision measuring tools.

Date Prepared: Spring 1999
Date Reviewed:
Date Reviewed:
PCA Established: Spring 1999
Date DL Conversion Approved

ALLAN HANCOCK COLLEGE
COURSE OUTLINE

DISCIPLINE: Engineering Technology or Auto Body or Automotive or Machine Tool or Welding

DEPARTMENT: **INDUSTRIAL TECHNOLOGY**

PREFIX & NUMBER: AB 117

CATALOG COURSE TITLE: Print Reading and Interpretation

BANNER COURSE TITLE: Print Reading and Interpretation

UNITS: 3

TOTAL NUMBER OF CONTACT HOURS: 48-54

	Hours per week (based on 16 weeks)	Total Hours per Term (range based on 16-18 weeks)	Units
Lecture:	3	48 - 54	3
Lab:	0	0 - 0	0
Total Contact Hours:	3	48 - 54	3

GRADING OPTION: Letter Grade or Pass/No Pass Option

PREREQUISITE(S): None

COREQUISITE(S): None

ADVISORY(IES): None

LIMITATION ON ENROLLMENT: (*Some common limitations on enrollment are: a requirement to pass a tryout prior to being enrolled in an athletic course or team, or physical requirement where the student's safety would be compromised by an inability* to *meet specific physical capabilities.)*
None

PREREQUISITE SKILLS (*The course outline must document entry skills without which student success is highly unlikely. Must be included if the course* has *a prerequisite.)*
Upon entering this course, the student should be able to:
None (no prerequisite for this course)

ADVISORY SKILLS *(For advisories, the course outline must document entry skills which are either necessary but are likely to be obtained by other means or, while not necessary, would broaden or enhance student learning but are not fundamental to student success.)*

Upon entering this course, the advisory skills are to:
None (no advisory for this course)

CATALOG DESCRIPTION
The catalog description could begin with a short paragraph (course description) that provides a well-developed overview of topics covered. Some suggested language is:

- *Identification of the target audience depending on whether the course is required for the major, degree or certificate, transfer, etc., that will assist students in their educational planning.*
- *Prerequisites, corequisites, advisories and/or limitations on enrollment.*
- *Designation of course repeatability.*
- *Lecture/lab/activity/studio hours and units.*
- *Field trip potential or other requirements that may impose a logistical or fiscal burden upon the students should be included along with an option for alternatives.*

An introductory class where students will learn to read engineering drawings, evaluate print specifications, recognize orthographic views and visualize the actual objects or projects shown in the illustration. This course is not open to students who are enrolled in or have received credit for AB 330, AT 330, ET 330, MT 330, or AT/ET/MT 117.

COURSE CONTENT *(Indicate all major topics to be covered and approximate number of weeks for each, based on 16 weeks. If the course works on hours, rather than weeks, include the number of hours to cover each of the topics for the course.)*

		WEEKS
1.	Introduction to Print Reading, Terminology, CADD, Print features	2
2.	Communicating with a Sketch	1
3.	Scales and Precision Measurement	1
4.	Reading Letters & Lines on a Drawing	1
5.	Reading Multi-View & Auxiliary View Drawings	2
6.	Manufacturing Materials and Processes	1
7.	Reading Dimensions	1
8.	Reading Drawings with Fasteners and Springs	1
9.	Reading Welding Drawings & Weld Symbols	2
10.	Sections, Revolutions, & Breaks	1
11.	Reading Geometric Tolerancing	1
12.	Reading Cam, Gear, & Bearing Drawings	1
13.	Reading Working Drawings	1

COURSE OBJECTIVES:
At the end of the course, the student will be able to:

1. Read and interpret various engineering drawings by completing numerous assignments.
2. Identify surface finish marks, tolerance, basic architecture, and welding symbols and be able to explain their meanings.
3. Use an engineering drawing accompanying specifications and materials lists to solve

industrial questions, to complete a project, or solve a related problem.
4. Use related handbooks, codes, and other references as they may be needed to solve a print reading question.

METHODS OF INSTRUCTION *(Types and/or methods or instruction are required. The course outline may show one or more teaching patterns. However, instructors have the freedom to choose how they will achieve course objectives.)*

Methods of Instruction
Lecture presentations and classroom discussions
Drawing hand outs followed by lecture/group discussions

OUTSIDE ASSIGNMENTS *(Assignment examples, if provided, should reflect coverage of all objectives and course content. Assignments can include supplemental reading materials beyond the required texts. The initiator should give the basis for grading, and relate assignments to skills and abilities listed in the objectives.)*

Outside Assignments
Maintain notebook on weekly class topics
Weekly homework assignments on class topics

METHODS OF EVALUATION *(List or describe the types and/or methods of evaluation. The course outline should describe the basis for grading or other evaluations, and relate the methods of evaluation to skills and abilities in the course objectives.).*

Methods of Evaluation
Weekly homework assignments
In-class tests on weekly topics
Comprehensive final exam graded for accuracy and content

REQUIRED TEXTS AND OTHER INSTRUCTIONAL MATERIALS

- *This field includes the text (and when possible, with date of publication) and other instructional materials.*
- *Text and other learning materials may have external requirements due to articulation requirements or certification requirements found in many programs.*
- *This section only contains that which is required for the student to be able to effectively participate in and successfully pass the course.*
- *Assignments specific to required reading and instructional materials should be given in the form of examples, where possible.*

Adopted Text: David A. Madsen, Print Reading for Engineering and Manufacturing Technology Third Edition, Thomas-Delmar Learning 2013
ISBN-13: 9781111308711

STUDENT LEARNING OUTCOMES

In this section, the initiator is to list the current course Student Learning Outcomes (SLOs). The outcomes may be revised as part of the program review annual update process, but is not done using this form. For new courses, the SLOs must be defined and need to be mapped to the program and institutional learning outcomes. Please contact Institutional Research and Planning (IRP) for assistance with new or modified SLOs.

1. Read and interpret various engineering drawings by completing numerous assignments.
2. Identify surface finish marks, tolerance, basic architecture, and welding symbols and be able to explain their meanings.
3. Use an engineering drawing accompanying specifications and materials lists to solve industrial questions, to complete a project, or solve a related problem.
4. Use related handbooks, codes, and other references as they may be needed to solve a print reading question.

Date BOT Approved: _____
Date Reviewed: Fall 2012
Date Reviewed: Fall 2009
PCA Established: Spring 1995
Date DL Conversion Approved _____

ALLAN HANCOCK COLLEGE
COURSE OUTLINE

DISCIPLINE: Auto Body Technology
Please refer to the disciplines list located in the Minimum Qualifications Handbook developed by the Academic Senate of California Community Colleges.

DEPARTMENT: **INDUSTRIAL TECHNOLOGY**

PREFIX & NUMBER: AB 353

CATALOG COURSE TITLE: Auto Body Repair

BANNER COURSE TITLE: Auto Body Repair

UNITS: 3

TOTAL NUMBER OF CONTACT HOURS: 96-108

	Hours per week (based on 16 weeks)	Total Hours per Term (range based on 16-18 weeks)	Units
Lecture:	2	32 - 36	2
Lab:	4	64 - 72	1
Total Contact Hours:	6	96 - 108	3

GRADING OPTION: Letter Grade or Pass/No Pass Option

PREREQUISITE(S): AB 351

COREQUISITE(S): None

ADVISORY(IES): None

LIMITATION ON ENROLLMENT: (*Some common limitations on enrollment are: a requirement to pass a tryout prior to being enrolled in an athletic course or team, or physical requirement where the student's safety would be compromised by an inability* to *meet specific physical capabilities.)*
None

PREREQUISITE SKILLS (*The course outline must document entry skills without which student success is highly unlikely. Must be included if the course* has *a prerequisite.)*
Upon entering this course, the student should be able to:

1. Identify commonly used auto collision repair tools and equipment.

2. Apply good work habits and safety practices.
3. Analyze types of sheet metal damage and the direction of impact.
4. Demonstrate proper hammer and dolly technique of sheet metal repair.
5. Understand the basic theory of auto body metal repair.
6. Develop skills involved with the repair of a simple dent.

ADVISORY SKILLS *(For advisories, the course outline must document entry skills which are either necessary but are likely to be obtained by other means or, while not necessary, would broaden or enhance student learning but are not fundamental to student success.)*
Upon entering this course, the advisory skills are to:
None (no advisory for this course)

CATALOG DESCRIPTION
The catalog description could begin with a short paragraph (course description) that provides a well-developed overview of topics covered. Some suggested language is:

- *Identification of the target audience depending on whether the course is required for the major, degree or certificate, transfer, etc., that will assist students in their educational planning.*
- *Prerequisites, corequisites, advisories and/or limitations on enrollment.*
- *Designation of course repeatability.*
- *Lecture/lab/activity/studio hours and units.*
- *Field trip potential or other requirements that may impose a logistical or fiscal burden upon the students should be included along with an option for alternatives.*

This course is designed to increase student's skill and knowledge in the areas of frame; measurement, straightening, and alignment. Course work also includes panel service, and structural panel replacement.

COURSE CONTENT *(Indicate all major topics to be covered and approximate number of weeks for each, based on 16 weeks. If the course works on hours, rather than weeks, include the number of hours to cover each of the topics for the course.)*

	WEEKS
1. Safety	1
2. Panel Service	2
3. Frame Measurement	1
4. Computer Measurement Systems	1
5. Frame Measurement Procedures	1
6. Mid-Term Review	2
7. Frame Alignment	1
8. Frame Pulling	1
9. Structural Panel Replacement	1
10. Structural Panel Alignment	1
11. Welding Panels	2
12. End of Semester Review	2

COURSE OBJECTIVES:

At the end of the course, the student will be able to:

1. Demonstrate proper safety while working in the lab.
2. Analyze space relationship of body components.
3. Use manufactures specifications to correct structural frame damage.
4. Use computer measuring system to diagnose frame misalignment.
5. Demonstrate the ability to use the frame wrack and make corrective pulls.
6. Apply proper techniques when replacing structural panels.

METHODS OF INSTRUCTION *(Types and/or methods or instruction are required. The course outline may show one or more teaching patterns. However, instructors have the freedom to choose how they will achieve course objectives.)*

Methods of Instruction
1. Lecture presentations and classroom discussions. 2. Video and audio presentations followed by group discussion. 3. Instructor-guided individual and group projects using conventional auto body repair equipment. 4. Presentations of individual and group projects followed by in-class discussion and evaluation.

OUTSIDE ASSIGNMENTS *(Assignment examples, if provided, should reflect coverage of all objectives and course content. Assignments can include supplemental reading materials beyond the required texts. The initiator should give the basis for grading, and relate assignments to skills and abilities listed in the objectives.)*

Outside Assignments
1. Students will complete ten homework/quiz assignments. 2. Students will use Internet to research auto body technician employment opportunities 3. Student will visit a commercial auto body repair establishment and report on their observations

METHODS OF EVALUATION *(List or describe the types and/or methods of evaluation. The course outline should describe the basis for grading or other evaluations, and relate the methods of evaluation to skills and abilities in the course objectives.).*

Methods of Evaluation
1. Mastery of course content is measured by objective type tests; quizzes, homework, mid-term, final exams, and job sheet lab performance. 2. Attitude, effort, and cooperative ability as demonstrated in the classroom and lab. 3. Attendance, students ability to attend class prepared and on time. 4. Evaluate proper safety and work habits. 5. Quality and quantity of lab work performed.

REQUIRED TEXTS AND OTHER INSTRUCTIONAL MATERIALS

- *This field includes the text (and when possible, with date of publication) and other instructional materials.*

- *Text and other learning materials may have external requirements due to articulation requirements or certification requirements found in many programs.*
- *This section only contains that which is required for the student to be able to effectively participate in and successfully pass the course.*
- *Assignments specific to required reading and instructional materials should be given in the form of examples, where possible.*

Adopted Text: Duffy, J. E. Auto Body Repair Technology. 2009 Fifth edition

Supplemental Readings and/or Other Materials:
Students are required to supply their own paint and sandpaper in this class.

STUDENT LEARNING OUTCOMES

In this section, the initiator is to list the current course Student Learning Outcomes (SLOs). The outcomes may be revised as part of the program review annual update process, but is not done using this form. For new courses, the SLOs must be defined and need to be mapped to the program and institutional learning outcomes. Please contact Institutional Research and Planning (IRP) for assistance with new or modified SLOs.

1. Demonstrate proper safety while working in the lab.
2. Analyze space relationship of body components.
3. Use manufactures specifications to correct structural frame damage.
4. Use computer measuring system to diagnose frame misalignment.
5. Demonstrate the ability to use the frame wrack and make corrective pulls.
6. Apply proper techniques when replacing structural panels.

Date Prepared: Fall 1994
Date Reviewed: Fall 2012
Date Reviewed: Fall 2009
PCA Established: Fall 1994
Date DL Conversion Approved

ALLAN HANCOCK COLLEGE
COURSE OUTLINE

DISCIPLINE: Auto Body Technology
Please refer to the disciplines list located in the Minimum Qualifications Handbook developed by the Academic Senate of California Community Colleges.

DEPARTMENT: **INDUSTRIAL TECHNOLOGY**

PREFIX & NUMBER: AB 354

CATALOG COURSE TITLE: Selected Auto Body Paint Projects

BANNER COURSE TITLE: Selected Auto Body Paint Projects

UNITS: 1

TOTAL NUMBER OF CONTACT HOURS: 48-54

	Hours per week (based on 16 weeks)	Total Hours per Term (range based on 16-18 weeks)	Units
Lecture:	0	0 - 0	0
Lab:	3	48 - 54	1
Total Contact Hours:	3	48 - 54	0

GRADING OPTION: Letter Grade or Pass/No Pass Option

PREREQUISITE(S): AB 356

COREQUISITE(S): None

ADVISORY(IES): None

LIMITATION ON ENROLLMENT: (*Some common limitations on enrollment are: a requirement to pass a tryout prior to being enrolled in an athletic course or team, or physical requirement where the student's safety would be compromised by an inability* to *meet specific physical capabilities.)*
None

PREREQUISITE SKILLS (*The course outline must document entry skills without which student success is highly unlikely. Must be included if the course* has *a prerequisite.)*
Upon entering this course, the student should be able to:

1. Determine processes and materials needed to prepare vehicle surfaces for painting.

2. Demonstrate proper safety while working in the lab.
3. Analyze paint defects and preparation errors.
4. Use paint charts to determine the adequate mixture of various paint materials.
5. Recognize and properly use paint equipment and materials in the automotive painting industry.
6. Demonstrate the ability to repair a door ding using poly-putty and primer to achieve commercially expectable results.

ADVISORY SKILLS *(For advisories, the course outline must document entry skills which are either necessary but are likely to be obtained by other means or, while not necessary, would broaden or enhance student learning but are not fundamental to student success.)*

Upon entering this course, the advisory skills are to:

None (no advisory for this course)

CATALOG DESCRIPTION

The catalog description could begin with a short paragraph (course description) that provides a well-developed overview of topics covered. Some suggested language is:

- *Identification of the target audience depending on whether the course is required for the major, degree or certificate, transfer, etc., that will assist students in their educational planning.*
- *Prerequisites, corequisites, advisories and/or limitations on enrollment.*
- *Designation of course repeatability.*
- *Lecture/lab/activity/studio hours and units.*
- *Field trip potential or other requirements that may impose a logistical or fiscal burden upon the students should be included along with an option for alternatives.*

Projects selected by the student and developed under the direct supervision and of instructional staff in the auto collision disciplines. Work is completed under the supervision of the responsible instructor in the auto body lab. The student must have the basic knowledge of painting techniques to complete the project.

COURSE CONTENT *(Indicate all major topics to be covered and approximate number of weeks for each, based on 16 weeks. If the course works on hours, rather than weeks, include the number of hours to cover each of the topics for the course.)*

	WEEKS
1. Grease and Wax Removal	3
2. Featheredging	3
3. Apply Primer	3
4. Block Sanding	2
5. Paint Preparation	2
6. Masking and Top Coating	3

COURSE OBJECTIVES:

At the end of the course, the student will be able to:

1. Use a verity of shop equipment, and use proper safety while working in the lab.
2. Use correct repair procedures in accordance with industry standards.
3. Apply and enhance trade skills and speed.

4. Construct and finish a project using the auto body shop facility

METHODS OF INSTRUCTION *(Types and/or methods or instruction are required. The course outline may show one or more teaching patterns. However, instructors have the freedom to choose how they will achieve course objectives.)*

Methods of Instruction
1. Instructor-guided individual and group projects using conventional auto body repair equipment.

OUTSIDE ASSIGNMENTS *(Assignment examples, if provided, should reflect coverage of all objectives and course content. Assignments can include supplemental reading materials beyond the required texts. The initiator should give the basis for grading, and relate assignments to skills and abilities listed in the objectives.)*

Outside Assignments
n/a

METHODS OF EVALUATION *(List or describe the types and/or methods of evaluation. The course outline should describe the basis for grading or other evaluations, and relate the methods of evaluation to skills and abilities in the course objectives.).*

Methods of Evaluation
1. Mastery of course content is measured by lab performance. 2. Attitude and effort are measured by student self-assessment essay. 3. Attendance, students ability to attend class prepared and on time. 4. Evaluate proper safety and work habits. 5. Quality and quantity of lab work performed.

REQUIRED TEXTS AND OTHER INSTRUCTIONAL MATERIALS

- *This field includes the text (and when possible, with date of publication) and other instructional materials.*
- *Text and other learning materials may have external requirements due to articulation requirements or certification requirements found in many programs.*
- *This section only contains that which is required for the student to be able to effectively participate in and successfully pass the course.*
- *Assignments specific to required reading and instructional materials should be given in the form of examples, where possible.*

Adopted Text: Duffy, J. E. Auto Body Repair Technology. 2009 Fifth edition

Supplemental Readings and/or Other Materials:
Students are required to supply their own paint and sandpaper in this class.

STUDENT LEARNING OUTCOMES

In this section, the initiator is to list the current course Student Learning Outcomes (SLOs). The outcomes may be revised as part of the program review annual update process, but is not done using this form. For new courses, the SLOs must be defined and need to be mapped to the program and institutional learning outcomes. Please contact Institutional Research and Planning (IRP) for assistance with new or modified SLOs.

1. Use a verity of shop equipment, and use proper safety while working in the lab.
2. Use correct repair procedures in accordance with industry standards.
3. Apply and enhance trade skills and speed.
4. Construct and finish a project using the auto body shop facility

ISLO/PSLO Summary Map by Course

Outcomes for: **Auto Body Program Outcomes (Auto Body Program Outcomes)**

Course Group: **Auto Body Courses**

List of ISLOs/PSLOs:

A AB PSLO - Develop, practice and apply good work and safety habits while in the auto body workplace.

B AB PSLO - Develop work skills involving plastic filler application, metal finishing, frame alignment, MIG welding and structural repair.

C AB PSLO - Apply vehicle service information skills to evaluate major damage and implement repair procedures.

D AB PSLO - Develop the ability to refinish vehicles using modern urethane paints and primers.

E AB PSLO - Develop occupational skills including team work, work habits, ethics and communication skills.

F AB PSLO - Identify commonly used auto collision repair tools and equipment.

G AB PSLO - Analyze types of sheet metal damage and the direction of impact to perform needed repair procedures involving frame and structural damage.

H AB PSLO - Recognize and properly use paint equipment and materials in the automotive painting industry.

I AB PSLO - Determine processes and materials needed to refinish vehicle surfaces in accordance with collision industry standards.

J AB PSLO - Demonstrate commercially acceptable skills and speed in refinishing vehicles.

K AB PSLO - Understand the basic theory of auto body metal repair and plastic filler application.

L AB PSLO - Identify estimating processes used in the collision industry.

	Auto Body Program Outcomes												
	A	B	C	D	E	F	G	H	I	J	K	L	**Totals:**
AB351	1	1			1	1					1		**5**
AB353			3				2						**5**
AB354	1				1								**2**
AB355	1				1								**2**
AB356	1			1				1			1	1	**5**
AB358	1			2				2					**5**
AB360		1	2						1	1			**5**
Totals:	**5**	**2**	**5**	**3**	**3**	**1**	**2**	**3**	**1**	**1**	**2**	**1**	

Created Tue Sep 30 09:46:36 PDT 2014

SLO Achievement Report: ISLOs/PSLOs Overall for Courses

Outcomes for: Auto Body Program Outcomes - Auto Body Program Outcomes
Academic Term: Spring 2012, Fall 2011, Spring 2013, Fall 2012, Fall 2013, Spring 2014
[X] CSLOs [ ] Assigned SLOs [ ] Named SLOs

List of Performance Categories:

A Institutional Exceeds Standards

B Institutional Meets Standards

C Institutional Below Standards

Competency Description	A	B	C	# Total Scores
Auto Body Program Outcomes				
AB PSLO - Analyze types of sheet metal damage and the direction of impact to perform needed repair procedures involving frame and structural damage.				
Spring 2013	9 (64%)	5 (36%)		14
AB PSLO - Apply vehicle service information skills to evaluate major damage and implement repair procedures.				
Spring 2014	6 (32%)	13 (68%)		19
Spring 2012	3 (23%)	8 (62%)	2 (15%)	13
Totals:	9 (28%)	21 (66%)	2 (6%)	32
AB PSLO - Demonstrate commercially acceptable skills and speed in refinishing vehicles.				
Fall 2012	4 (36%)	5 (45%)	2 (18%)	11
AB PSLO - Develop occupational skills including team work, work habits, ethics and communication skills.				
Spring 2014	13 (72%)	5 (28%)		18
Fall 2013	9 (64%)	4 (29%)	1 (7%)	14
Fall 2012	11 (65%)	5 (29%)	1 (6%)	17
Totals:	33 (67%)	14 (29%)	2 (4%)	49
AB PSLO - Develop the ability to refinish vehicles using modern urethane paints and primers.				
Spring 2014	12 (33%)	21 (58%)	3 (8%)	36
Fall 2013	13 (59%)	8 (36%)	1 (5%)	22
Spring 2013	11 (65%)	2 (12%)	4 (24%)	17
Fall 2012	15 (54%)	11 (39%)	2 (7%)	28
Spring 2012	6 (33%)	8 (44%)	4 (22%)	18
Totals:	57 (47%)	50 (41%)	14 (12%)	121
AB PSLO - Develop work skills involving plastic filler application, metal finishing, frame alignment, MIG welding and structural repair.				
Fall 2013	6 (60%)	4 (40%)		10
Spring 2012	14 (70%)	4 (20%)	2 (10%)	20
Fall 2011	3 (100%)			3
Totals:	23 (70%)	8 (24%)	2 (6%)	33
AB PSLO - Develop, practice and apply good work and safety habits while in the auto body workplace.				
Spring 2014	6 (75%)	1 (12%)	1 (12%)	8

Competency Description	A	B	C	# Total Scores
Fall 2013	15 (71%)	6 (29%)		21
Spring 2013	16 (89%)	2 (11%)		18
Totals:	37 (79%)	9 (19%)	1 (2%)	47
AB PSLO - Identify commonly used auto collision repair tools and equipment.				
Spring 2014	2 (10%)	13 (65%)	5 (25%)	20
Fall 2013	11 (48%)	10 (43%)	2 (9%)	23
Spring 2013	7 (50%)	5 (36%)	2 (14%)	14
Fall 2012	10 (56%)	8 (44%)		18
Spring 2012	11 (58%)	3 (16%)	5 (26%)	19
Totals:	41 (44%)	39 (41%)	14 (15%)	94
AB PSLO - Recognize and properly use paint equipment and materials in the automotive painting industry.				
Spring 2013	7 (70%)	3 (30%)		10
Spring 2012	5 (33%)	5 (33%)	5 (33%)	15
Totals:	12 (48%)	8 (32%)	5 (20%)	25

Report Totals by Term

Spring 2014	39 (39%)	53 (52%)	9 (9%)	101
Fall 2013	54 (60%)	32 (36%)	4 (4%)	90
Spring 2013	50 (68%)	17 (23%)	6 (8%)	73
Fall 2012	40 (54%)	29 (39%)	5 (7%)	74
Spring 2012	39 (46%)	28 (33%)	18 (21%)	85
Fall 2011	3 (100%)			3
Grand Totals:	225 (53%)	159 (37%)	42 (10%)	426

Course Statistics and Evidence

Course Group: Auto Body Courses
Outcomes Group: Auto Body Program Outcomes

Statistics		
# Catalog Courses:	7	AB351, AB353, AB354, AB355, AB356, AB358, AB360
# Catalog Courses with CSLOs:	7	AB351, AB353, AB354, AB355, AB356, AB358, AB360
# Catalog Courses without CSLOs:	0	
# Catalog Courses whose CSLOs are mapped to PSLOs:	7	AB351, AB353, AB354, AB355, AB356, AB358, AB360
# Catalog Courses whose CSLOs are NOT mapped to PSLOs:	0	
# Catalog Courses whose CSLOs are mapped to ISLOs:	7	AB351, AB353, AB354, AB355, AB356, AB358, AB360
# Catalog Courses whose CSLOs are NOT mapped to ISLOs:	0	
# Catalog Courses with Planned Assessments:(Term-specific)	7	AB351, AB353, AB354, AB355, AB356, AB358, AB360
# Catalog Courses without Planned Assessments:(Term-specific)	0	
# Catalog Courses with Assessment Data:(Term-specific)	7	AB351, AB353, AB354, AB355, AB356, AB358, AB360
# Catalog Courses without Assessment Data:(Term-specific)	0	
# Catalog Courses with a Completed CIP:(Term-specific)	7	AB351, AB353, AB354, AB355, AB356, AB358, AB360
# Catalog Courses without a Completed CIP:(Term-specific)	0	
Terms in which CSLOs were defined or modified:(Term-specific)	Spring 2014, Fall 2011	

Active Courses

Course: 1. AB351 Auto Body Metal

Owner: Auto Body

Course Groups: All Course Group - 300 Level, Auto Body Courses, Auto Body Metal (Certificate), Auto Body Refinishing (Certificate), Auto Body Technology (A.S.), INDUSTRIAL TECHNOLOGY DEPARTMENT

CSLOs:
- AB351 SLO1 - Identify the correct tools and equipment for sheet metal and collision repair.
- AB351 SLO2 - Understand the need for career training pertaining to job success and ethics.
- AB351 SLO3 - Repair a dent by roughing out, straightening, and finishing meeting industry standards.
- AB351 SLO4 - Apply good work habits and safety practices.
- AB351 SLO5 - Understand the steps needed to correct sheet metal damage and apply plastic filler

PSLOs:

Outcomes Group: Auto Body Program Outcomes

Auto Body Program Outcomes
- AB PSLO - Develop, practice and apply good work and safety habits while in the auto body workplace.
- AB PSLO - Develop work skills involving plastic filler application, metal finishing, frame alignment, MIG welding and structural repair.
- AB PSLO - Develop occupational skills including team work, work habits, ethics and communication skills.
- AB PSLO - Identify commonly used auto collision repair tools and equipment.
- AB PSLO - Understand the basic theory of auto body metal repair and plastic filler application.

ISLOs:

Outcomes Group: Institutional Learning Outcomes (ILOs)

ILO 1 - Communication
- ILO 1 - Communication: Communicate effectively using verbal, visual and written language with clarity and purpose in workplace, community and academic contexts.

ILO 2 - Critical Thinking & Problem Solving
- ILO 2 - Critical Thinking & Problem Solving: Explore issues through various information sources; evaluate the credibility and significance of both the information and the source to arrive at a reasoned conclusion.

ILO 5 - Quantitative Literacy
- ILO 5 - Quantitative Literacy: Use mathematical concepts and models to analyze and solve real life issues or problems.

ILO 7 - Personal Responsibility & Development
- ILO 7 - Personal Responsibility & Development: Take the initiative and responsibility to assess your own actions with regard to physical wellness, learning opportunities, career planning, creative contribution to the community and ethical integrity in the home, workplace and community.

Planned Asmts: (Term specific)	• Spring 2014 Sec B Dent Repair Theory • Spring 2014 Sec B Final Exam • Fall 2013 Sec A Dent Repair Theory • Fall 2013 Sec A Copy of Dent Repair Theory • Fall 2013 Sec A Copy of Dent Repair Theory • Fall 2013 Sec A Copy of Dent Repair Theory • Fall 2013 Sec A Copy of Dent Repair Theory • Fall 2013 Sec A Copy of Dent Repair Theory • Fall 2013 Sec A Copy of Dent Repair Theory • Spring 2013 Sec B SLO #1 • Fall 2012 Sec A AB 351 Sheet Metal and Collision Repair Tools • Spring 2012 Sec null Dent Repair Theory • Spring 2012 Sec B Dent Repair Theory
Terms with Scores: (Term specific)	• Fall 2012 • Spring 2013 • Fall 2013 • Spring 2014
Course Analysis: (Term-specific)	**Fall 2013** • [What did the assessment data indicate about the strengths of your course?]All but two students met the objective and seemed to understand the material. • [What did the assessment data indicate about the weaknesses of your course?]Two of the students were just below the standard. • [What changes have you made/do you plan to make based on the data? What resources would you need, if any, to make these changes?]I will provide more visual aids to make connections from book and lecture to lab experience. ***Spring 2012*** • [What did the assessment data indicate about the strengths of your course?]Overall the assessment data indicated that the students understood the theory and concepts of basic dent repair. • [What did the assessment data indicate about the weaknesses of your course?]The data indicated that some students were unable to fully understand the material. This leaves room for improvement. • [What changes have you made/do you plan to make based on the data? What resources would you need, if any, to make these changes?]Based on the data no major changes will be implemented. A effort will be made to tie in the lecture portion of the class with the hands on lab portion of the curriculum in order to reinforce the material. The resources needed are a funded program sufficient to operate the auto body lab.

Course: 2.	AB353 Auto Body Repair
Owner:	Auto Body
Course Groups:	All Course Group - 300 Level, Auto Body Courses, Auto Body Metal (Certificate), Auto Body Technology (A.S.), INDUSTRIAL TECHNOLOGY DEPARTMENT
CSLOs:	• AB353 SLO1 - Diagnose frame damages using measurement of datum and centerline to determine repair procedures. • AB353 SLO2 - Use and set up computerized measuring system to determine frame damage. • AB353 SLO3 - Properly secure a vehicle to the frame rack and make pulls needed to correct frame misalignment. • AB353 SLO4 - Choose and use the correct tools and equipment for each phase of body and frame alignment/repair • AB353 SLO5 - Use manufacturer's specifications to correct structural frame damage.
PSLOs:	Outcomes Group: Auto Body Program Outcomes Auto Body Program Outcomes • AB PSLO - Apply vehicle service information skills to evaluate major damage and implement repair procedures. • AB PSLO - Analyze types of sheet metal damage and the direction of impact to perform needed repair procedures involving frame and structural damage.
ISLOs:	Outcomes Group: Institutional Learning Outcomes (ILOs) ILO 2 - Critical Thinking & Problem Solving • ILO 2 - Critical Thinking & Problem Solving: Explore issues through various information sources; evaluate the credibility and significance of both the information and the source to arrive at a reasoned conclusion. ILO 4 - Information & Technology Literacy • ILO 4 - Information & Technology Literacy: Define what information is needed to solve a real-life issue then use appropriate technologies to locate, access, select and manage the information. ILO 6 - Scientific Literacy • ILO 6 - Scientific Literacy: Use scientific knowledge and methodologies to assess potential solutions to real-life challenges.
Planned Asmts: (Term specific)	• Spring 2014 Sec A performance • Spring 2013 Sec B SLO#3 • Spring 2012 Sec B Frame repair Theory
Terms with Scores: (Term specific)	• Spring 2013 • Spring 2014

Course Analysis:(Term-specific)	**Spring 2013** • [What did the assessment data indicate about the strengths of your course?]The course does a excellent job teaching the techniques of frame repair to the students. • [What did the assessment data indicate about the weaknesses of your course?]No weaknesses. • [What changes have you made, do you plan to make based on the data? What resources would you need, if any, to make these changes?]I will continue using collision damaged cars needing frame repair to instruct my students in the lab. **Spring 2012** • [What did the assessment data indicate about the strengths of your course?]The assessment data indicated that the majority of the students scored proficient in the results of the learning outcome with twenty three percent in the top percentile. This would indicate that the basic theory of frame alignment and measurement was understood. • [What did the assessment data indicate about the weaknesses of your course?]The weakness would be that fifteen percent of the class did not understand the material and that seventy six percent could have moved up to a perfect score. • [What changes have you made, do you plan to make based on the data? What resources would you need, if any, to make these changes?]I plane to provide more hands on opportunity in the lab to reinforce the theory that the students are tested on. I hope this will aid in the retention of the material.
Course: 3.	AB354 Selected Auto Body Paint Proj
Owner:	Auto Body
Course Groups:	All Course Group - 300 Level, Auto Body Courses, Auto Body Refinishing (Certificate), INDUSTRIAL TECHNOLOGY DEPARTMENT
CSLOs:	• AB354 SLO1 - Prepare and follow through to completion a pre-defined project. • AB354 SLO2 - Use a variety of shop equipment safely as he/she would be required to do on an actual job.
PSLOs:	Outcomes Group: Auto Body Program Outcomes Auto Body Program Outcomes • AB PSLO - Develop, practice and apply good work and safety habits while in the auto body workplace. • AB PSLO - Develop occupational skills including team work, work habits, ethics and communication skills.
ISLOs:	Outcomes Group: Institutional Learning Outcomes (ILOs) ILO 7 - Personal Responsibility & Development • ILO 7 - Personal Responsibility & Development: Take the initiative and responsibility to assess your own actions with regard to physical wellness, learning opportunities, career planning, creative contribution to the community and ethical integrity in the home, workplace and community.
Planned Asmts:(Term-specific)	• Spring 2014 Sec B project • Fall 2013 Sec A Project Completion • Spring 2013 Sec B SLO#3 • Fall 2012 Sec A AB 354 Project Completion
Terms with Scores:(Term-specific)	• Fall 2012 • Spring 2013 • Fall 2013 • Spring 2014
Course Analysis:(Term-specific)	**Fall 2012** • [What did the assessment data indicate about the strengths of your course?]The strengths of the course would be that the majority of the class scored at the highest level of the assessment and completed projects on time. • [What did the assessment data indicate about the weaknesses of your course?]The weakness would be that one students did not reach the course goals and two students failed to continue the course. • [What changes have you made, do you plan to make based on the data? What resources would you need, if any, to make these changes?]At this time I would not make any changes to the course and no additional resources are needed.
Course: 4.	AB355 Selected Auto Body Metal Proj
Owner:	Auto Body
Course Groups:	All Course Group - 300 Level, Auto Body Courses, INDUSTRIAL TECHNOLOGY DEPARTMENT
CSLOs:	• AB355 SLO1 - Prepare and follow through to completion a pre-defined project. • AB355 SLO2 - Use a variety of shop equipment safely as he/she would be required to do on an actual job.
PSLOs:	Outcomes Group: Auto Body Program Outcomes Auto Body Program Outcomes • AB PSLO - Develop, practice and apply good work and safety habits while in the auto body workplace. • AB PSLO - Develop occupational skills including team work, work habits, ethics and communication skills.
ISLOs:	Outcomes Group: Institutional Learning Outcomes (ILOs) ILO 7 - Personal Responsibility & Development • ILO 7 - Personal Responsibility & Development: Take the initiative and responsibility to assess your own actions with regard to physical wellness, learning opportunities, career planning, creative contribution to the community and ethical integrity in the home, workplace and community.
Planned Asmts:(Term-specific)	• Spring 2014 Sec A project • Fall 2013 Sec A AB 355 SLO1 • Spring 2013 Sec A SLO#2 • Fall 2012 Sec A AB 355 Project Completion

Terms with Scores:(Term-specific)	• Fall 2012 • Spring 2013 • Fall 2013 • Spring 2014
Course Analysis:(Term-specific)	**Fall 2013** • [What did the assessment data indicate about the strengths of your course?]All students were progressing well in their course work. • [What did the assessment data indicate about the weaknesses of your course?]No weaknesses noted. • [What changes have you made/ do you plan to make based on the data? What resources would you need, if any, to make these changes?]None. **Fall 2012** • [What did the assessment data indicate about the strengths of your course?]The assessment showed that the class overall was effective in project completion. • [What did the assessment data indicate about the weaknesses of your course?]The only weakness was that one student quit coming to class at the midway point in the semester. • [What changes have you made/ do you plan to make based on the data? What resources would you need, if any, to make these changes?]The course is functioning well and no changes or resources are needed at this time.
Course: 5.	AB356 Automotive Painting Techniques
Owner:	Auto Body
Course Groups:	All Course Group - 300 Level, Auto Body Courses, Auto Body Metal (Certificate), Auto Body Refinishing (Certificate), Auto Body Technology (A.S.), INDUSTRIAL TECHNOLOGY DEPARTMENT
CSLOs:	• AB356 SLO1 - Determine processes and materials needed to prepare vehicle surfaces for painting. • AB356 SLO2 - Use paint mixing ratios to determine the mixture of various paint materials. • AB356 SLO3 - Practice good safety and properly use the equipment and materials in the automotive painting industry. • AB356 SLO4 - Determine the process and terms needed to write and estimate • AB356 SLO5 - Fix a door ding using polyester glazing putty and primer surfacer.
PSLOs:	Outcomes Group: Auto Body Program Outcomes Auto Body Program Outcomes • AB PSLO - Develop, practice and apply good work and safety habits while in the auto body workplace. • AB PSLO - Develop the ability to refinish vehicles using modern urethane paints and primers. • AB PSLO - Recognize and properly use paint equipment and materials in the automotive painting industry. • AB PSLO - Understand the basic theory of auto body metal repair and plastic filler application. • AB PSLO - Identify estimating processes used in the collision industry.
ISLOs:	Outcomes Group: Institutional Learning Outcomes (ILOs) ILO 2 - Critical Thinking & Problem Solving • ILO 2 - Critical Thinking & Problem Solving: Explore issues through various information sources; evaluate the credibility and *significance of both the information and the source to arrive at a reasoned conclusion.* ILO 4 - Information & Technology Literacy • ILO 4 - Information & Technology Literacy: Define what information is needed to solve a real-life issue then use appropriate technologies to locate, access, select and manage the information. ILO 7 - Personal Responsibility & Development • ILO 7 - Personal Responsibility & Development: Take the initiative and responsibility to assess your own actions with regard to physical wellness, learning opportunities, career planning, creative contribution to the community and ethical integrity in the home, workplace and community.
Planned Asmts:(Term-specific)	• *Spring 2014 Sec A ab356* • Fall 2013 Sec A AB 356 SLO 3 • Fall 2013 Sec B lab • Fall 2013 Sec B test • Spring 2013 Sec A lab • Fall 2012 Sec A AB 356 Refinishing Materials and Equipment • Fall 2012 Sec B test • Spring 2012 Sec A Paint Refinishing
Terms with Scores:(Term-specific)	• Fall 2012 • Spring 2013 • Fall 2013 • Spring 2014

Course Analysis:(Term specific)	**Spring 2014** • [What did the assessment data indicate about the strengths of your course?]It helped enforce fundamentals of auto body • [What did the assessment data indicate about the weaknesses of your course?]we need to spend more time on fundamentals. • [What changes have you made do you plan to make based on the data? What resources would you need, if any, to make these changes?]slow down during lab demonstrations. **Spring 2012** • [What did the assessment data indicate about the strengths of your course?]The data indicated that the majority of the students understood the *assigned chapter on automotive refinishing.* • [What did the assessment data indicate about the weaknesses of your course?]The weakness according to the data would be that about twenty two percent were unable to understand the material pertaining to chapter twenty five. • [What changes have you made do you plan to make based on the data? What resources would you need, if any, to make these changes?]I plan on taking an informal survey to find out how many students are without books. I also plan on suggesting study groups for my students and having a discussion on how to better prepare for test and quizzes. There would be no resources needed for this change.
Course: 6.	AB358 Automotive Refinishing
Owner:	Auto Body
Course Groups:	All Course Group - 300 Level, Auto Body Courses, Auto Body Refinishing (Certificate), Auto Body Technology (A.S.), INDUSTRIAL TECHNOLOGY DEPARTMENT
CSLOs:	• AB358 SLO1 - Analyze body surface problems and determine measures to take in alleviating them. • AB358 SLO2 - Use good work habits and safety practices. • AB358 SLO3 - Produce a vehicle paint job in accordance with accepted industry practices and procedures. • AB358 SLO4 - Choose the correct equipment, tools, and materials to properly prepare and paint a vehicle. • AB358 SLO5 - Understand the theory of paint color matching.
PSLOs:	Outcomes Group: Auto Body Program Outcomes Auto Body Program Outcomes • AB PSLO - Develop, practice and apply good work and safety habits while in the auto body workplace. • AB PSLO - Develop the ability to refinish vehicles using modern urethane paints and primers. • AB PSLO - Recognize and properly use paint equipment and materials in the automotive painting industry.
ISLOs:	Outcomes Group: Institutional Learning Outcomes (ILOs) ILO 2 - Critical Thinking & Problem Solving • ILO 2 - Critical Thinking & Problem Solving: Explore issues through various information sources; evaluate the credibility and significance of both the information and the source to arrive at a reasoned conclusion. ILO 4 - Information & Technology Literacy • ILO 4 - Information & Technology Literacy: Define what information is needed to solve a real-life issue then use appropriate technologies to locate, access, select and manage the information. ILO 7 - Personal Responsibility & Development • ILO 7 - Personal Responsibility & Development: Take the initiative and responsibility to assess your own actions with regard to physical wellness, learning opportunities, career planning, creative contribution to the community and ethical integrity in the home, workplace and community.
Planned Asmts:(Term specific)	• Spring 2014 Sec B lab • Spring 2013 Sec A SLO#5 • Spring 2012 Sec A Paint Technology
Terms with Scores:(Term specific)	• Spring 2012 • Spring 2013 • Spring 2014
Course Analysis:(Term specific)	**Spring 2013** • [What did the assessment data indicate about the strengths of your course?]The data suggests that the students understood the concepts and met proficiency. • [What did the assessment data indicate about the weaknesses of your course?]The data did not show any real weaknesses. • [What changes have you made do you plan to make based on the data? What resources would you need, if any, to make these changes?]None. **Spring 2012** • [What did the assessment data indicate about the strengths of your course?]The assessment data indicated that the strengths of the course would be that thirty three percent scored in the top percentile and thirty three percent scored in the proficient range. • [What did the assessment data indicate about the weaknesses of your course?]The assessment data indicated that the course was weak in that thirty three percent of the students scored below the proficient level. • [What changes have you made do you plan to make based on the data? What resources would you need, if any, to make these changes?]I would like to have a hands on portion added to the class which would demonstrate how adjustments to the spray gun can lighten and darken metallic paint colors. This would solidify the theory we learn about in class and in the text book. The resources needed would be added money to pay for the paint material needed such as urethane base coat and clear coat (500.00) to additional budget.
Course: 7.	AB360 Collision Repairs
Owner:	Auto Body
Course Groups:	All Course Group - 300 Level, Auto Body Courses, Auto Body Metal (Certificate), Auto Body Refinishing (Certificate), Auto Body Technology (A.S.), INDUSTRIAL TECHNOLOGY DEPARTMENT

CSLOs:

- AB360 SLO1 - Evaluate major damage and repair strategies using frame measurements to determine repair procedures.
- AB360 SLO2 - Develop MIG welding theory and skills needed in the collision industry
- AB360 SLO3 - Develop commercially acceptable refinishing skills.
- AB360 SLO4 - Understand all major components of a vehicle.
- AB360 SLO5 - Produce commercially acceptable skills and speed in workmanship.

PSLOs:

Outcomes Group: Auto Body Program Outcomes

Auto Body Program Outcomes

- AB PSLO - Develop work skills involving plastic filler application, metal finishing, frame alignment, MIG welding and structural repair.
- AB PSLO - Apply vehicle service information skills to evaluate major damage and implement repair procedures.
- AB PSLO - Determine processes and materials needed to refinish vehicle surfaces in accordance with collision industry standards.
- AB PSLO - Demonstrate commercially acceptable skills and speed in refinishing vehicles.

ISLOs:

Outcomes Group: Institutional Learning Outcomes (ILOs)

ILO 2 - Critical Thinking & Problem Solving

- ILO 2 - Critical Thinking & Problem Solving: Explore issues through various information sources; evaluate the credibility and significance of both the information and the source to arrive at a reasoned conclusion.

ILO 4 - Information & Technology Literacy

- ILO 4 - Information & Technology Literacy: Define what information is needed to solve a real-life issue then use appropriate technologies to locate, access, select and manage the information.

ILO 6 - Scientific Literacy

- ILO 6 - Scientific Literacy: Use scientific knowledge and methodologies to assess potential solutions to real-life challenges.

Planned Asmts: (Term-specific)

- Fall 2013 Sec A AB 360 SLO 2
- Fall 2012 Sec A AB 360 Group Refinishing Project
- Fall 2011 Sec A Welding Technology

Terms with Scores: (Term-specific)

- Fall 2011
- Fall 2012
- Fall 2013

Course Analysis: (Term-specific)

Fall 2013

- [What did the assessment data indicate about the strengths of your course?]The students were able to perform the three welds (plug, stitch, and lap) at expectable level.
- [What did the assessment data indicate about the weaknesses of your course?]The course work was at expected level in this area.
- [What changes have you made or will plan to make based on the data? What resources would you need, if any, to make these changes?]None.

Spring 2012

- [What did the assessment data indicate about the strengths of your course?]The assessment data indicated that the course is doing well in the teaching of MIG welding skills at this time.
- [What did the assessment data indicate about the weaknesses of your course?]The weakness may be that the pool was limited to three students and weighted the results.
- [What changes have you made or will plan to make based on the data? What resources would you need, if any, to make these changes?]No changes planed at this time.

Primary Instructor Load by Subject by Course by Term

				Term Code			
Subj..	Subject ..	CRN	Primary Instru..	Fall 2009	Spring 2010	Fall 2010	Spring 2011
AB	AB351	20552	Mason, E (	0.37		0.37	
		40024	Watanabe, J (		0.37		0.37
		41188	Mason, E (		0.37		0.37
	AB353	40026	Mason, E (		0.37		0.37
	AB354	40027	Watanabe, J (		0.18		
	AB356	20555	Mason, E (	0.37		0.37	
		20556	Watanabe, J (	0.37		0.37	
		40108	Mason, E (		0.37		0.37
	AB358	40109	Mason, E (		0.37		0.37
	AB360	20573	Mason, E (	0.55		0.55	
	AB381	20577	Mabry, R D	0.2			
			Melsheimer, E D			0.2	
		40110	Mabry, R D		0.2		
			Melsheimer, E D				0.2
Grand Total				1.86	2.23	1.86	2.05

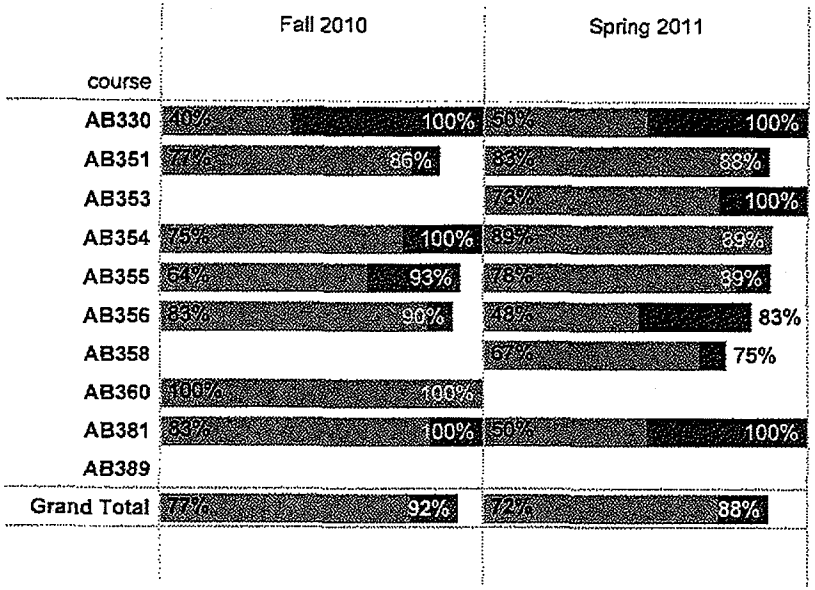
Sum of Crn Load Assigned Instr broken down by Term Code vs. Subject Code, Subject Course #, CRN and Primary Instructor Name. The data is filtered on Campus Desc and Time Of Day Desc. The Campus Desc filter keeps 8 of 8 members. The Time Of Day Desc filter keeps Day, Evening, TBA and Weekend. The view is filtered on Term Code, Subject Code, Subject Course #, CRN, Primary Instructor Name and sum of Crn Load Assigned Instr. The Term Code filter keeps 6 of 20 members. The Subject Code filter keeps AB. The Subject Course # filter keeps 1,574 of 1,574 members. The CRN filter keeps 7,967 of 7,967 members. The Primary Instructor Name filter keeps 1,015 of 1,015 members. The sum of Crn Load Assigned Instr filter ranges from 0.0001 to 10.

Primary Instructor Load by Subject by Course by Term

				Term Code					
Subj..	Subject ..	CRN	Primary Instru..	Fall 2011	Spring 2012	Fall 2012	Spring 2013	Fall 2013	Spring 2014
AB	AB351	20340	Mason, E (					0.37	
		20358	Mason, E (			0.37			
		20552	Mason, E (	0.37					
		40024	Watanabe, J (		0.37				
		40614	Mason, E (						0.37
		40665	Mason, E (				0.37		
		41188	Mason, E (		0.37				
	AB353	40016	Mason, E (				0.37		
		40026	Mason, E (		0.37				
		41593	Mason, E (						0.37
	AB354	20359	Mason, E (			0.18			
	AB356	20343	Mason, E (					0.37	
		20344	Watanabe, J (					0.37	
		20361	Mason, E (			0.2			
		20362	Watanabe, J (			0.37			
		20555	Mason, E (	0.37					
		20556	Watanabe, J (	0.37					
		40065	Watanabe, J (						0.37
		40073	Watanabe, J (				0.37		
		40108	Mason, E (		0.37				
	AB358	40074	Mason, E (				0.37		
		40109	Mason, E (		0.37				
		41592	Mason, E (						0.37
	AB360	20356	Mason, E (					0.55	
		20374	Mason, E (			0.55			
		20573	Mason, E (	0.55					
	AB381	22879	Melsheimer, E D	0.08					
Grand Total				1.74	1.85	1.67	1.48	1.66	1.48

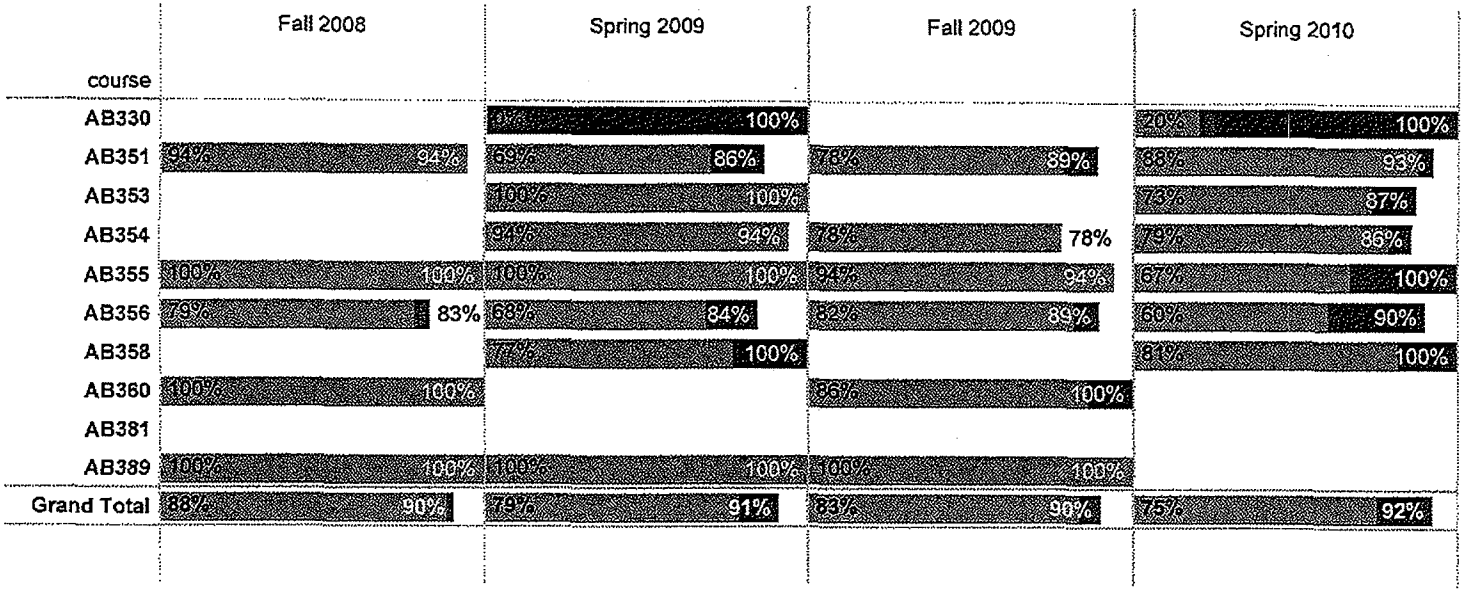
Sum of Crn Load Assigned Instr broken down by Term Code vs. Subject Code, Subject Course #, CRN and Primary Instructor Name. The data is filtered on Campus Desc and Time Of Day Desc. The Campus Desc filter keeps 8 of 8 members. The Time Of Day Desc filter keeps Day, Evening, TBA and Weekend. The view is filtered on Term Code, Subject Code, Subject Course #, CRN, Primary Instructor Name and sum of Crn Load Assigned Instr. The Term Code filter keeps 9 of 20 members. The Subject Code filter keeps AB. The Subject Course # filter keeps 1,574 of 1,574 members. The CRN filter keeps 7,967 of 7,967 members. The Primary Instructor Name filter keeps 1,015 of 1,015 members. The sum of Crn Load Assigned Instr filter ranges from 0.0001 to 10.

Fall 2008, Spring 2009, Fall 2009 and 3 more Retention & Success

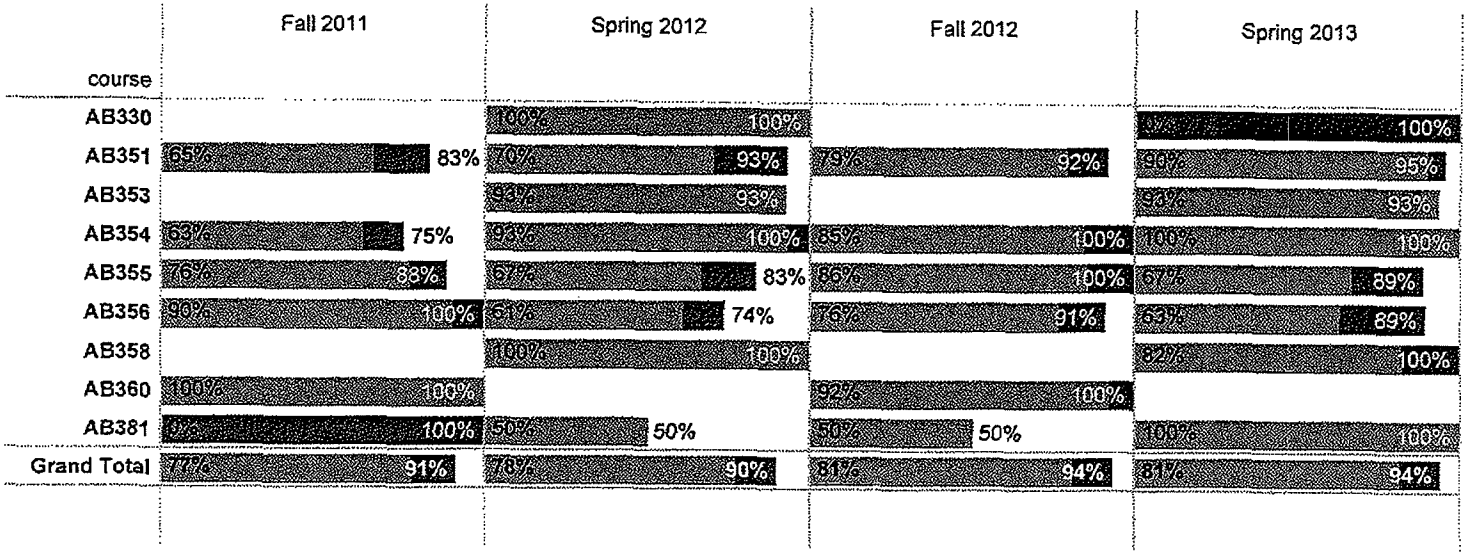


Measure Names
- Retention %
- Success %

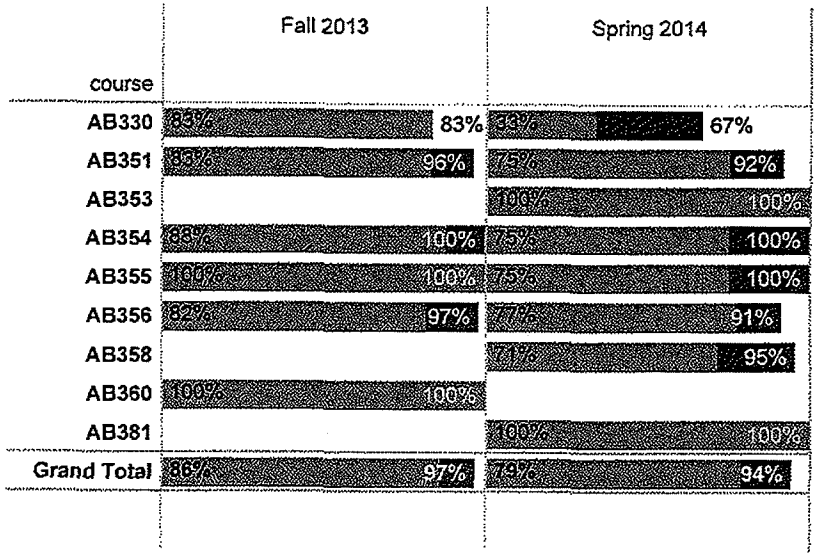
Fall 2008, Spring 2009, Fall 2009 and 3 more Retention & Success



Fall 2011, Spring 2012, Fall 2012 and 3 more Retention & Success



Fall 2011, Spring 2012, Fall 2012 and 3 more Retention & Success



Summer 2008, Fall 2008, Spring 2009 and 6 more Enrollment, FTES, Retention & Success AHC Data

	Summer 2008	Fall 2008	Spring 2009	Summer 2009	Fall 2009	Spring 2010	Summer 2010	Fall 2010	Spring 2011
Sections	415	1,274	1,201	262	1,114	1,238	348	1,178	1,240
Headcount	5,746	11,690	12,098	4,637	11,253	12,728	6,230	12,131	12,689
Enrollment	9,071	30,223	30,506	7,161	29,913	32,406	10,179	32,211	33,109
Retention %	92.66%	88.36%	86.84%	88.58%	87.98%	88.82%	84.71%	85.14%	84.72%
Success %	77.71%	69.66%	70.25%	77.55%	68.49%	72.75%	72.20%	67.32%	68.82%
FTES	1,013	4,462	5,149	940	4,019	4,688	1,249	4,221	4,132

Fall 2008, Spring 2009, Fall 2009 and 3 more AB Outcomes

	Fall 2008	Spring 2009	Fall 2009	Spring 2010	Fall 2010	Spring 2011
Sections	6.0	10.0	7.0	9.0	8.0	10.0
Headcount	75.0	85.0	77.0	101.0	94.0	103.0
Enrollment	83.0	103.0	89.0	116.0	100.0	123.0
retained	75.0	94.0	80.0	107.0	92.0	108.0
Retention %	90.36%	91.26%	89.89%	92.24%	92.00%	87.80%
success	73.0	81.0	74.0	87.0	77.0	89.0
Success %	87.95%	78.64%	83.15%	75.00%	77.00%	72.36%
FTES	17.3	18.3	16.2	21.2	18.2	22.4

	Fall 2008		Spring 2009		Fall 2009		Spring 2010		Fall 2010		Spring 2011	
Enrollment Status	Headc..	FTES	Headc..	FTES	Headc..	FTES	Headc..	FTES	Headc..	FTES	Headc..	FTES
First Time	24.0	5.7	11.0	2.8	19.0	4.5	22.0	4.5	34.0	6.9	9.0	2.7
First Time Transf..			2.0	0.4	2.0	0.4	1.0	0.1	5.0	1.0	1.0	0.1
Returning	16.0	3.4	14.0	3.0	12.0	2.7	20.0	3.8	13.0	2.2	4.0	0.7
Continuing	31.0	7.3	55.0	11.4	44.0	8.6	57.0	12.6	42.0	8.1	89.0	18.9
N/A	3.0	0.6	3.0	0.6								
Grand Total	74.0	17.0	85.0	18.3	77.0	16.2	100.0	21.0	94.0	18.2	103.0	22.4

	Fall 2008		Spring 2009		Fall 2009		Spring 2010		Fall 2010		Spring 2011	
age_category	Headc..	FTES	Headc..	FTES	Headc..	FTES	Headc..	FTES	Headc..	FTES	Headc..	FTES
Under 19	39.00	8.89	37.00	8.48	36.00	8.18	42.00	9.71	31.00	5.98	27.00	6.30
20-24	22.00	5.28	29.00	6.25	25.00	5.11	33.00	6.84	33.00	6.17	46.00	8.98
25-29	5.00	1.31	7.00	1.44	2.00	0.61	6.00	0.92	7.00	1.60	10.00	2.46
30-34	1.00	0.30	2.00	0.41	5.00	0.82	4.00	1.13	5.00	1.17	7.00	1.50
35-39	1.00	0.30	3.00	0.72	1.00	0.20	6.00	1.13	6.00	1.07	7.00	1.60
40-49	2.00	0.40	1.00	0.20	4.00	0.72	5.00	0.82	7.00	1.28	3.00	0.85
50+	4.00	0.55	6.00	0.76	4.00	0.55	4.00	0.42	5.00	0.96	3.00	0.75

	Fall 2011		Spring 2012		Fall 2012		Spring 2013		Fall 2013		Spring 2014	
Enrollment Status	Headc..	FTES	Headc..	FTES	Headc..	FTES	Headc..	FTES	Headc..	FTES	Headc..	FTES
First Time	18.00	4.71	6.00	1.71	14.00	2.99	5.00	1.07	18.00	4.27	5.00	1.18
First Time Transf..	2.00	0.43	2.00	0.85	3.00	0.85	3.00	0.64	3.00	1.07	1.00	0.21
Returning	11.00	2.89	12.00	2.46	18.00	4.06	8.00	1.82	13.00	2.78	7.00	1.39
Continuing	45.00	8.84	75.00	17.31	43.00	10.88	56.00	12.40	46.00	10.16	73.00	16.88
Unknown	1.00	0.21	1.00	0.21								
N/A			2.00	0.43			1.00	0.21				
Grand Total	77.00	17.08	98.00	22.97	78.00	18.79	73.00	16.14	80.00	18.28	86.00	19.66

	Fall 2011		Spring 2012		Fall 2012		Spring 2013		Fall 2013		Spring 2014	
age_category	Headc..	FTES	Headc..	FTES	Headc..	FTES	Headc..	FTES	Headc..	FTES	Headc..	FTES
Under 19	22.00	5.14	33.00	7.48	22.00	5.24	13.00	3.31	23.00	5.34	26.00	6.09
20-24	30.00	6.19	37.00	8.44	35.00	8.48	37.00	8.44	35.00	8.05	44.00	9.83
25-29	9.00	1.82	9.00	1.71	7.00	1.49	10.00	1.92	7.00	1.59	6.00	1.39
30-34	7.00	1.71	5.00	1.60	5.00	1.16	4.00	0.53	4.00	1.17	5.00	1.28
35-39	2.00	0.64	3.00	0.75	3.00	0.94	3.00	0.53	1.00	0.11		
40-49	5.00	1.26	7.00	1.71	3.00	0.75	4.00	1.07	3.00	0.74	3.00	0.64
50+	2.00	0.32	4.00	1.28	3.00	0.74	2.00	0.32	7.00	1.28	2.00	0.43

	Fall 2011		Spring 2012		Fall 2012		Spring 2013		Fall 2013		Spring 2014	
Enrollment Status	Headc..	FTES	Headc..	FTES	Headc..	FTES	Headc..	FTES	Headc..	FTES	Headc..	FTES
First Time	18.00	4.71	6.00	1.71	14.00	2.99	5.00	1.07	18.00	4.27	5.00	1.18
First Time Transf..	2.00	0.43	2.00	0.85	3.00	0.85	3.00	0.64	3.00	1.07	1.00	0.21
Returning	11.00	2.89	12.00	2.46	18.00	4.06	8.00	1.82	13.00	2.78	7.00	1.39
Continuing	45.00	8.84	75.00	17.31	43.00	10.88	56.00	12.40	46.00	10.16	73.00	16.88
Unknown	1.00	0.21	1.00	0.21								
N/A			2.00	0.43			1.00	0.21				
Grand Total	77.00	17.08	98.00	22.97	78.00	18.79	73.00	16.14	80.00	18.28	86.00	19.66

	Fall 2011		Spring 2012		Fall 2012		Spring 2013		Fall 2013		Spring 2014	
age_category	Headc..	FTES	Headc..	FTES	Headc..	FTES	Headc..	FTES	Headc..	FTES	Headc..	FTES
Under 19	22.00	5.14	33.00	7.48	22.00	5.24	13.00	3.31	23.00	5.34	26.00	6.09
20-24	30.00	6.19	37.00	8.44	35.00	8.48	37.00	8.44	35.00	8.05	44.00	9.83
25-29	9.00	1.82	9.00	1.71	7.00	1.49	10.00	1.92	7.00	1.59	6.00	1.39
30-34	7.00	1.71	5.00	1.60	5.00	1.16	4.00	0.53	4.00	1.17	5.00	1.28
35-39	2.00	0.64	3.00	0.75	3.00	0.94	3.00	0.53	1.00	0.11		
40-49	5.00	1.26	7.00	1.71	3.00	0.75	4.00	1.07	3.00	0.74	3.00	0.64
50+	2.00	0.32	4.00	1.28	3.00	0.74	2.00	0.32	7.00	1.28	2.00	0.43

Summer 2011, Fall 2011, Spring 2012 and 6 more Enrollment, FTES, Retention & Success AHC Data

	Summer 2011	Fall 2011	Spring 2012	Summer 2012	Fall 2012	Spring 2013	Summer 2013	Fall 2013	Spring 2014
Sections	314	1,023	1,146	293	1,004	1,087	285	1,069	1,141
Headcount	5,798	10,957	11,736	5,551	10,883	11,361	5,421	10,922	11,293
Enrollment	9,242	29,219	30,988	8,784	28,559	29,609	8,455	28,612	29,369
Retention %	85.50%	86.69%	84.65%	89.79%	86.62%	86.17%	89.13%	86.97%	85.23%
Success %	74.32%	68.63%	69.09%	77.33%	69.63%	70.38%	77.46%	70.56%	70.22%
FTES	1,072	3,881	3,854	1,001	3,745	3,776	978	3,813	3,824

Fall 2011, Spring 2012, Fall 2012 and 3 more AB Outcomes

	Fall 2011	Spring 2012	Fall 2012	Spring 2013	Fall 2013	Spring 2014
Sections	7.0	10.0	7.0	8.0	7.0	8.0
Headcount	77.0	98.0	78.0	73.0	80.0	86.0
Enrollment	92.0	120.0	93.0	86.0	91.0	98.0
retained	84.0	108.0	87.0	81.0	88.0	92.0
Retention %	91.30%	90.00%	93.55%	94.19%	96.70%	93.88%
success	71.0	93.0	75.0	70.0	78.0	77.0
Success %	77.17%	77.50%	80.65%	81.40%	85.71%	78.57%
FTES	17.1	23.0	18.8	16.1	18.3	19.7

Degrees & Certificates

		GRADUATION_TERM_CODE						
DEGREE_PRO..	DEGREE_CODE	Fall 2008	Spring 2009	Fall 2009	Spring 2010	Summer 2010	Spring 2011	Grand Total
Auto Body Technology	AS	1	2		2			5
	Cert 6-18 Units Not Approved		1	1	1		2	5
	Cert 12-18 Units				3			3
	Cert 18-30 Units	1	1		2	1	2	7
Grand Total		2	4	1	8	1	4	20

DEGREE_PROGRAM_DESC / GRADUATION_TERM_CODE
Auto Body Technology
DEGREE_CODE
AS
Cert 6-18 Units Not Approved
Cert 12-18 Units
Cert 18-30 Units
Number of Records
0
1
2
3
4
5
6
7
8
9
Fall 2008
Spring 2009
Fall 2009
Spring 2010
Summer 2010
Spring 2011

Degrees & Certificates

GRADUATION_TERM_CODE

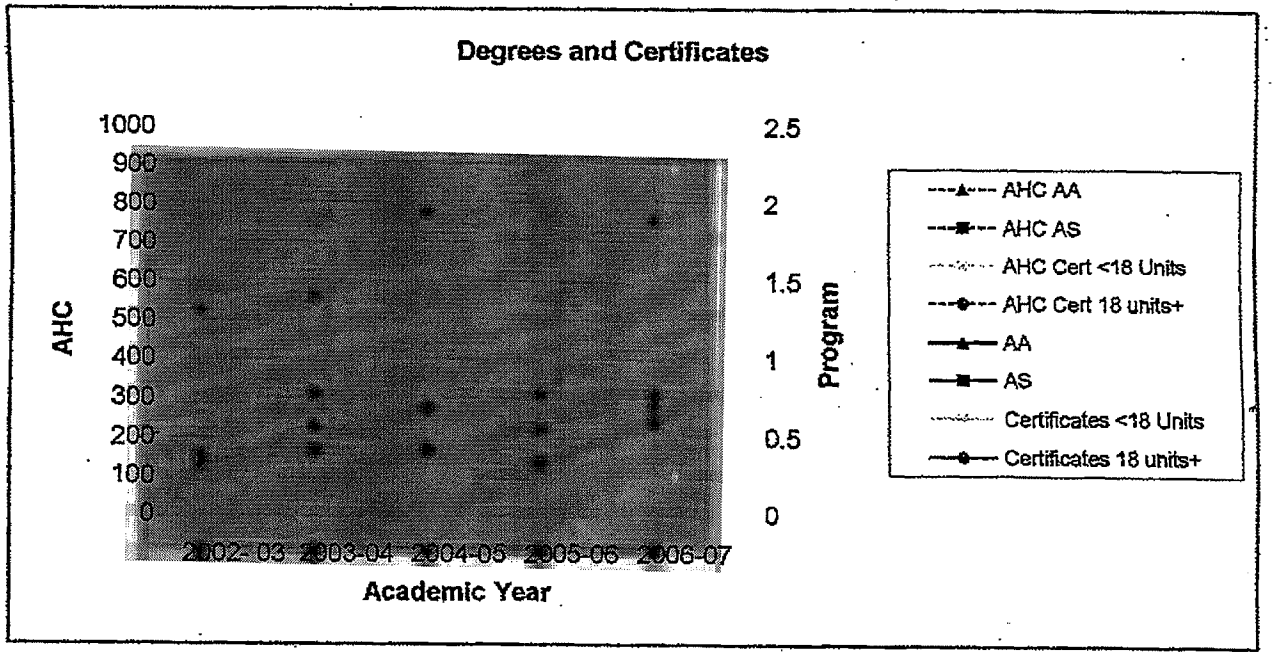
DEGREE_PRO..	DEGREE_CODE	Fall 2011	Spring 2012	Fall 2012	Spring 2013	Summer 2013	Fall 2013	Spring 2014	Grand Total
Auto Body Technology	AS		1	2	2		1		6
	Cert 6-18 Units Not Approved	1	2	5	2	1	4	4	19
	Cert 18-30 Units	1	2	6	1		4	4	18
Grand Total		2	5	13	5	1	9	8	43

DEGREE_PROGRAM_DESC / GRADUATION_TERM_CODE
Auto Body Technology
DEGREE_CODE
AS
Cert 6-18 Units Not Approved
Cert 18-30 Units
Number of Records
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
Fall 2011
Spring 2012
Fall 2012
Spring 2013
Summer 2013
Fall 2013
Spring 2014

Program Review Trend Data: Student Outcomes

Program	Topcode
Auto Body	**904820 & 094900**

	Academic Year (Summer to Spring)					5 Year Average	5 Year % Change	Linear Trend Slope
Degrees/Certificates	2002- 03	2003-04	2004-05	2005-06	2006-07			
AA	**0**	**0**	**0**	**0**	**0**	**0**	**N/A**	**0**
AHC AA	616	652	868	792	846	755	37%	60
AS	**0**	**0**	**0**	**0**	**0**	**0**	**N/A**	**0**
AHC AS	242	257	258	225	327	262	35%	14
Certificates <18 Units	**1**	**2**	**0**	**2**	**1**	**1**	**0%**	**0**
AHC Cert <18 Units	564	598	553	415	422	511	-25%	-47
Certificates 18 units+	**0**	**1**	**0**	**1**	**1**	**1**	**N/A**	**0**
AHC Cert 18 units+	222	315	364	309	370	316	67%	29



ETHNICITY	Fall 2011		Spring 2012		Fall 2012		Spring 2013		Fall 2013		Spring 2014	
	Headc..	FTES	Headc..	FTES	Headc..	FTES	Headc..	FTES	Headc..	FTES	Headc..	FTES
Asian	1.00	0.21	3.00	0.85	2.00	0.32	1.00	0.11	3.00	0.53		
Black	1.00	0.43	1.00	0.21			1.00	0.11	1.00	0.21		
Filipino			1.00	0.11	3.00	0.74						
Hispanic	53.00	11.76	66.00	15.49	54.00	13.07	53.00	12.40	57.00	13.38	67.00	15.07
Native American	1.00	0.11			2.00	0.43	1.00	0.21	1.00	0.21	2.00	0.32
White	21.00	4.58	27.00	6.30	17.00	4.24	17.00	3.31	18.00	3.94	17.00	4.27

	Fall 2011		Spring 2012		Fall 2012		Spring 2013		Fall 2013		Spring 2014	
Gender	Headc..	FTES	Headc..	FTES	Headc..	FTES	Headc..	FTES	Headc..	FTES	Headc..	FTES
Female	2.00	0.32	3.00	0.43	2.00	0.43	2.00	0.43	3.00	0.85	4.00	0.85
Male	75.00	16.76	95.00	22.55	76.00	18.36	71.00	15.71	77.00	17.43	82.00	18.81
Grand Total	77.00	17.08	98.00	22.97	78.00	18.79	73.00	16.14	80.00	18.28	86.00	19.66

Resources for Labor Market Information and Data

The California Employment Development Department provides labor market data by county at http://labormarketinfo.edd.ca.gov .

EDD also provides information by Occupational Guide coordinated with TOPS codes at http://www.labormarketinfo.edd.ca.gov/occguides/Search.aspx

Occupational Information Network (O*NET) Online at http://online.onetcenter.org: detailed skills, competencies and knowledge by occupational title.

U.S Bureau of Labor Statistics http://www.bls.gov/ and the Occupational Outlook Handbook at http://www.bls.gov/ooh/

California Community Colleges Centers of Excellence (COE) http://www.coeccc.net/index.asp

California Community Colleges Chancellor's Office Data Mart http://datamart.cccco.edu

Industry Snapshots of selected COE Environmental Scans http://www.path2careers.net/?page_id=4

Local Resources

- AHC Fact Book
- Tableau
- AHC Strategic Plan

Automotive Body and Glass Repairers

Summary

Quick Facts: Automotive Body and Glass Repairers	
2012 Median Pay	$37,680 per year $18.12 per hour
Entry-Level Education	High school diploma or equivalent
Work Experience in a Related Occupation	None
On-the-job Training	Moderate-term on-the-job training
Number of Jobs, 2012	172,200
Job Outlook, 2012-22	13% (As fast as average)
Employment Change, 2012-22	22,900

Automotive body and glass repairers restore and replace automobile frames.

What Automotive Body and Glass Repairers Do

Automotive body and glass repairers restore, refinish, and replace vehicle bodies and frames, windshields, and window glass.

Work Environment

Repair technicians work indoors in body shops, which are often noisy. Most shops are well ventilated to disperse dust and paint fumes. Repair technicians sometimes work in awkward and cramped positions, and their work can be physically demanding. Automotive glass installers and repairers often travel to the customer's location to repair damaged windshields and window glass.

How to Become an Automotive Body or Glass Repairer

Most employers prefer to hire repairers who have completed a formal training program in automotive body repair or refinishing. Still, many new repairers begin work without formal training. Industry certification is becoming increasingly important.

Pay

In May 2012, the median annual wage for automotive body and related repairers was $38,380. The median annual wage for automotive glass installers and repairers was $32,650 in May 2012.

Job Outlook

Employment of automotive body and glass repairers is projected to grow 13 percent from 2012 to 2022, about as fast as the average for all occupations. Job opportunities should be very good for jobseekers with industry certification and formal training in automotive body repair and refinishing and in collision repair.

Similar Occupations

Compare the job duties, education, job growth, and pay of automotive body and glass repairers with similar occupations.

More Information, Including Links to O*NET

Learn more about automotive body and glass repairers by visiting additional resources, including O*NET, a source on key characteristics of workers and occupations.

Automotive Body and Glass Repairers

Pay

About this section

The median annual wage for automotive body and related repairers was $38,380 in May 2012. The median wage is the wage at which half the workers in an occupation earned more than that amount and half earned less. The lowest 10 percent earned less than $22,530, and the top 10 percent earned more than $65,390.

The median annual wage for automotive glass installers and repairers was $32,650 in May 2012. The lowest 10 percent earned less than $20,590, and the top 10 percent earned more than $47,730.

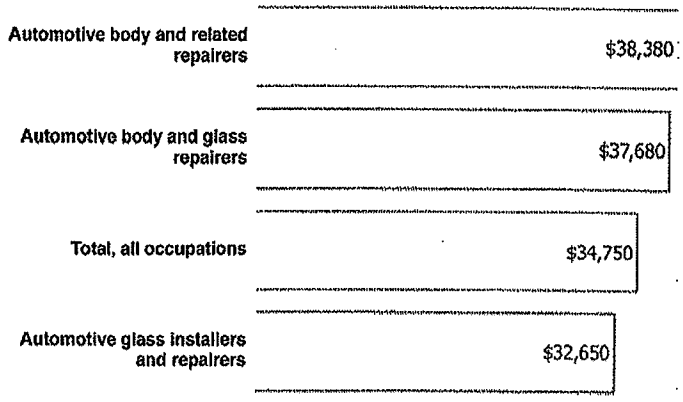
The majority of repair shops and auto dealers pay repair technicians on an incentive basis. In addition to receiving a guaranteed base salary, employers pay workers a set amount for completing various tasks. Their earnings depend on both the amount of work assigned and how fast they complete it.

Trainees typically earn between 30 percent and 60 percent of skilled workers' pay. They are paid by the hour until they are competent enough to be paid on an incentive basis.

Most repair technicians work full time. When shops have to complete a backlog of work, overtime is common. This often includes repair technicians working evenings and weekends.

Automotive Body and Glass Repairers

Median annual wages, May 2012



Note: All Occupations includes all occupations in the U.S. Economy.
Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics

« How to Become One Job Outlook »

Automotive Body and Glass Repairers

How to Become an Automotive Body or Glass Repairer

About this section

Most employers prefer to hire repair technicians who have completed a formal training program in automotive body repair or refinishing. Still, many new repair technicians begin work without formal training. Industry certification is increasingly important.

Automotive glass repairers replace broken windshields and window glass.

Education

High school, trade and technical school, and community college programs in collision repair combine hands-on practice and classroom instruction. Topics usually include electronics, physics, and mathematics, which provide a strong educational foundation for a career as a repair technician. Although not required, postsecondary education often provides the best preparation.

Trade and technical school programs typically award certificates after 6 months to 1 year of study. Some community colleges offer 2-year programs in collision repair. Many of these schools also offer certificates for individual courses, so students can take classes part time or as needed.

To keep up with rapidly changing automotive technology, repair technicians need to continue their education and training throughout their careers. Repair technicians are expected to develop their skills by reading technical manuals and by attending classes and seminars. Many employers regularly send workers to advanced training programs.

Licenses, Certifications, and Registrations

Although not required, certification is recommended because it shows competence and usually brings higher pay. In some instances, however, it is required for advancement beyond entry-level work.

Certification from the National Institute for Automotive Service Excellence is a standard credential for repair technicians. Many repair technicians get further certification through the Inter-Industry Conference on Auto Collision Repair .

In addition, many vehicle and paint manufacturers have product certification programs that train repair technicians in specific technologies and repair methods.

Important Qualities

Critical-thinking skills. Repair technicians must be able to evaluate vehicle damage and determine necessary repair strategies for each vehicle they work on. In some cases, they must decide if a vehicle is "totaled," or too damaged to justify the cost of repair.

Customer-service skills. Repair technicians must discuss auto body and glass problems, along with options to fix them, with customers. Because self-employed workers depend on repeat clients for business, they must be courteous, good listeners, and ready to answer customers' questions.

Detail oriented. Repair technicians must pay close attention to detail. Restoring a damaged auto body to its original state requires workers to have a keen eye for even the smallest imperfection.

Dexterity. Many repair technicians' tasks, such as removing door panels, hammering out dents, and using hand tools to install parts, require a steady hand and good hand–eye coordination.

Mechanical skills. Repair technicians must know which diagnostic, hydraulic, pneumatic, and other power equipment and tools are appropriate for certain procedures and repairs. They must be skilled with techniques and methods necessary to repair modern automobiles.

Time-management skills. Repair technicians must be timely in their repairs. For many people, their automobile is their primary mode of transportation.

Training

New workers typically begin their on-the-job training by helping an experienced repair technician with basic tasks. As they gain experience, they move on to more complex work. Some workers may become trained in as little as a 1 year, but generally, workers may need 2 years of hands-on training to become fully certified repair technicians.

Basic automotive glass installation and repair can be learned in as little as 6 months, but becoming fully qualified can take up to 1 year.

Formally educated workers often require significantly less on-the-job training and typically advance to independent work more quickly than those who do not have the same level of education.

Work Environment Key

Publish Date: Wednesday, January 8, 2014

Painting and Coating Workers

Pay

About this section

The median annual wage for painting and coating workers was $32,850 in May 2012. The median wage is the wage at which half the workers in an occupation earned more than that amount and half earned less. The lowest 10 percent earned less than $20,870, and the top 10 percent earned more than $54,600.

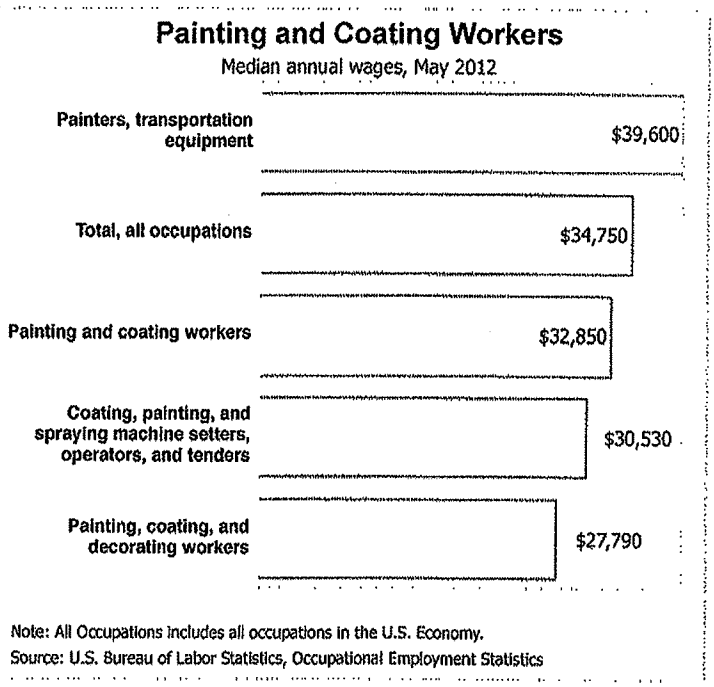
In May 2012, median annual wages for painting and coating occupations were as follows:

- $39,600 for transportation equipment painters
- $30,530 for coating, painting, and spraying machine setters, operators, and tenders
- $27,790 for painting, coating, and decorating workers

Many automotive painters who work for motor vehicle dealers and independent automotive repair shops get a commission. Employers frequently guarantee commissioned painters a minimum weekly salary.

Helpers and trainees usually get an hourly rate until they become skilled enough to work on commission.

Trucking companies, bus lines, and other organizations that repair and refinish their own vehicles generally pay by the hour.



Most painting and coating workers are employed full time. Automotive painters in repair shops often work overtime, depending on the number of vehicles that need repainting.

< How to Become One

Job Outlook >

Publish Date: Wednesday, January 8, 2014

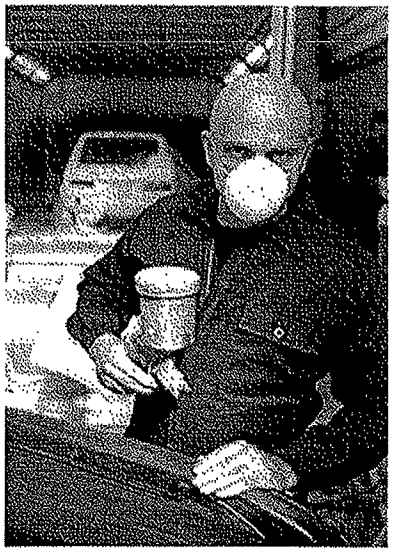
Production >

Painting and Coating Workers

How to Become a Painting and Coating Worker

About this section

Most painting and coating workers learn on the job. Although training for most new workers usually lasts from a few days to several months, those who paint automobiles generally need 1 to 2 years of training.



Painting and coating workers can usually become proficient in less than 1 year.

Education

Painting and coating workers in the manufacturing sector usually must have a high school diploma or equivalent. Employers outside of manufacturing sometimes hire workers without a high school diploma.

High school courses in automotive painting is recommended.

Automobile repair painters often attend a technical or vocational school where they receive hands-on training and learn the intricacies of mixing and applying different types of paint.

Training

Most entry-level workers receive on-the-job training that may last from a few days to a few months.

Workers who modify the operation of computer-controlled equipment may require additional training in computer operations and programming.

Transportation equipment painters typically learn to paint on the job.

Licenses, Certifications, and Registrations

Voluntary certification by the National Institute for Automotive Service Excellence (ASE) is recognized as the standard of achievement for automotive painters. To obtain certification, painters must pass a written exam and have at least 2 years of experience in the field. Recertification is required every 5 years. Few painting and coating workers other than automobile painters obtain certification.

ASE-approved training in automotive refinishing taken while in high school, a trade or vocational school, or community college may substitute for up to 1 year of work experience. To keep the certification, painters must retake the exam at least every 5 years.

Important Qualities

Artistic ability. Some workers make elaborate or decorative designs. For example, some automotive painters specialize in making custom designs for vehicles.

Color vision. Workers must be able to blend new paint colors properly in order to match existing colors on a surface.

Mechanical skills. Because workers must operate and maintain sprayers that apply paints and coatings, they should have good mechanical skills.

« Work Environment Pay »

SUGGESTED CITATION:
Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook, 2014-15 Edition*, Painting and Coating Workers, on the Internet at http://www.bls.gov/ooh/production/painting-and-coating-workers.htm (visited *November 14, 2014*).

SNAPSHOT
of the Collision Repair Industry

COLLISION REPAIR EDUCATION FOUNDATION
I-CAR

Co-sponsored by I-CAR

EXECUTIVE SUMMARY OF THE 2013 SURVEY

BACKGROUND

Previous surveys, conducted every three years, confirmed the need for a continual supply of qualified entry-level technicians, while also showing changes concerning business operations and the collision repair technician workforce.

A similar survey was completed in 2013 to continue monitoring trends and provide data to support school programs for collision repair at all levels.

SAMPLE

An online survey was set up to collect information about both the business environment and the technician workforce. Announcements were made in leading publications, on appropriate websites, and to repair associations inviting collision repair businesses to complete the survey.

Over 500 collision repair businesses responded, representing over 2,300 technicians and a wealth of data.

Even with a first-time electronic survey and a six-year gap since the last study, results still give a current picture of the industry and interesting comparisons to previous years.

BUSINESS STATISTICS

In six years since the last survey was completed, both the economy and the collision repair industry have been through significant changes. The industry has experienced a market size reduction of 3,047 shops (7.0%) to a current count of 40,488 shops, while the size of individual shops has increased.

Small shops (those with annual sales under $300,000) were almost half of all shops (44.3%) in 1995 and now represent about one of every twelve shops (8.7%). The share of super shops (those with annual sales over $1 million) has increased from about one in seven shops (15.3%) in 1995 to two-thirds (66.5%) of all shops in 2013.

The overall average for square feet of production space has again grown, more than doubling since 1995. The average number of employees reported has also more than doubled in that same time period. In 1995, one in five shops reported more than six technicians. In 2013, it is now more than one out of every two shops.

Those in business five years or less was one out of every seven (14.2%) in 1995 and one out of every sixteen (6.1%) in 2013, resulting in an increase of the overall average of number of years in business.

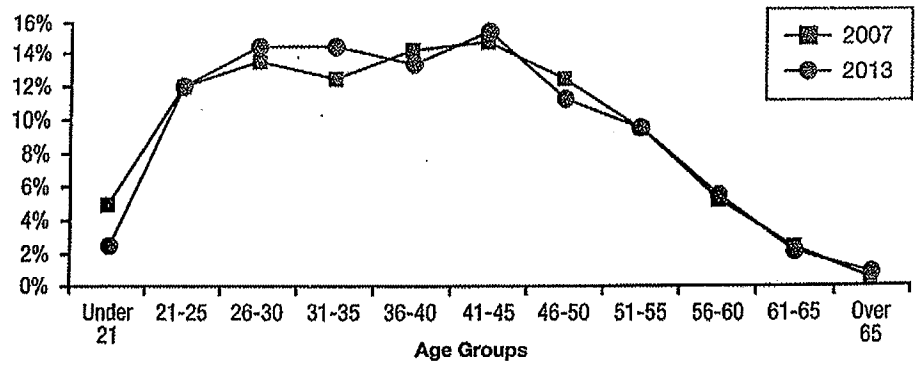
Business Statistics - Collision Repair Shops

SURVEY YEAR	1995	1998	2001	2004	2007	2013
Number of Businesses*	45,882	46,427	44,532	44,736	43,535	40,488
Number of Technicians*			178,400	176,500	179,000	173,200
Years in Business	17.3	20.7	21.6	25.7	27.5	29.5
Average Square Feet	5,761	6,537	8,269	9,008	10,034	13,524
Average Number Employees	6.1	7.2	7.7	7.9	8.4	13.3
More than 6 Technicians	20.4%	25.3%	29.7%	32.2%	32.6%	55.9%
Percent of Small Shops	44.3%	35.4%	28.0%	22.4%	14.3%	8.7%
Percent of Large Shops	40.4%	41.0%	45.9%	43.3%	48.6%	24.8%
Percent of Super Shops	15.3%	23.6%	26.1%	34.4%	37.1%	66.5%

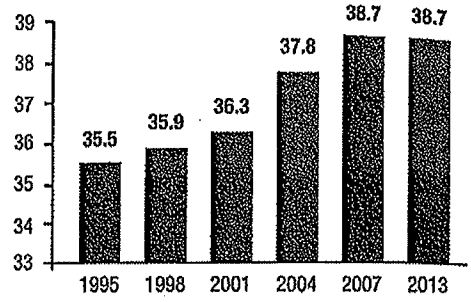
* Courtesy of CollisionWeek

This survey was conducted by the Collision Repair Education Foundation.

Age Groups — Collision Repair Technicians



Average Age



CURRENT TECHNICIANS

Average technician age has leveled off at just under 39 years old after increasing about 10% since 1995.

Most of the current working technicians were hired from another shop (61%). Almost 20% were hired from a non-automotive industry or as their first job. Just under 8% were hired from a related automotive industry. These figures have not changed significantly from previous surveys. Twelve percent were hired directly from a technical school program, up from 7% in 2007. Women were reported to be 2% of the technician workforce.

Slightly above the entire adult population, 90% of technicians are high school graduates.

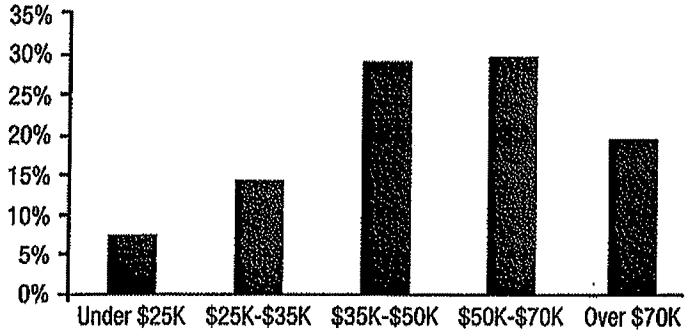
Businesses responding to the survey report that 74% of technicians participated in I-CAR training in the last two years. Six percent reported OEM training.

COMPENSATION

Compensation plans have remained consistent, with about half based on flat rate (commission) plans. Entry-level technicians are usually based on an hourly rate.

Although there is a wide distribution, annual income tends to increase with shop sales volume. Income figures shown below are for production technicians over 20 years old.

Annual Technician Income



Average income for production technicians has again increased since the previous survey, from $51,312 to $52,997, competitive with similar skilled trades and higher than most.

Nineteen percent reported earnings of $70,000 or higher, showing an attractive earning potential as a collision repair technician.

2013 National Annual Income Averages

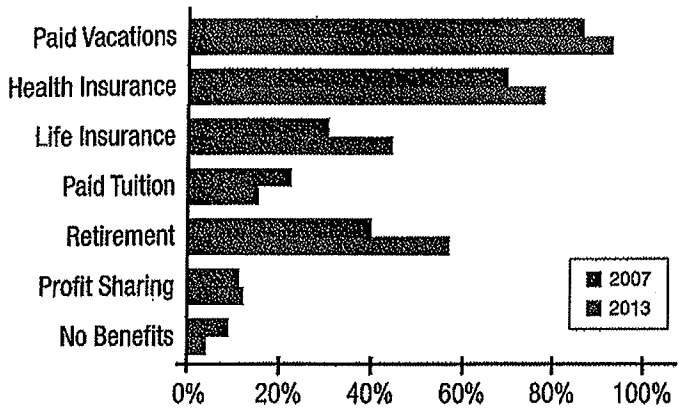
Collision Repair Technician	$52,997
Electronics Technician	$52,940
Machinery Mechanic	$48,690
Tool & Die Maker	$48,490
Chemical Technician	$46,130
Carpenter (Gen/Maint)	$44,520
Heavy Truck Driver	$40,360
Medical Lab Technician	$39,340
Welder	$38,410

BENEFITS

Benefit packages offered to today's collision repair technician workforce show slight increases from previous survey data in all categories.

In 1995, 19% of businesses reported no benefits offered from this list. Those offering no benefits have declined in every year the survey was done, showing only 7.5% offering no benefits in 2013.

Percent of Shops Offering Each Benefit

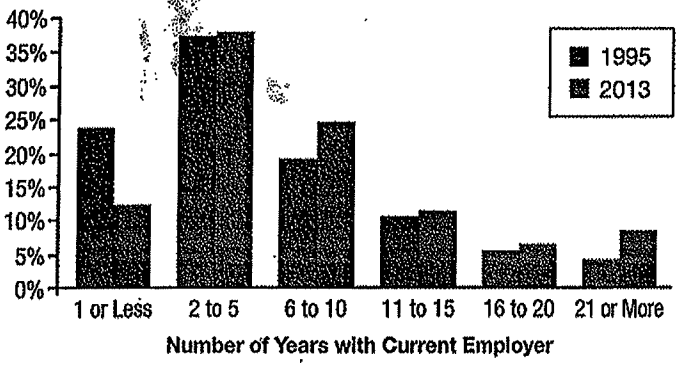


TECHNICIAN TURNOVER

Approximately one of every seven technicians (13.9%) left their jobs within the last year, significantly less than the 27.5% reported in 2007.

Half of all reported technicians have been with their current employer for 5 years or less. Through the years, there has been a steady increase in technicians staying with their employer for more than 5 years, from 39% in 1995 to 50% in 2013.

All Collision Repair Technicians



Of those who left their jobs, over half (53%) left for another shop. This is **turnover** within the industry and, while disruptive to an individual shop, does not increase or decrease the pool of available technicians.

Industry **turnout** decreases the number of working technicians available. In the last 12 months, approximately one in sixteen collision technicians (6.6%) left the trade, significantly less than the 11% reported in 2007.

Some technicians (1.6%) left their job for a different position, but still in an automotive business. Other technicians (4.0%) left the Collision Repair Industry completely. In addition, 1.0% of technicians retired from the workforce.

Technician Turnover in the Last 12 Months

Total Technicians	**173,200**	
Technicians That Left Their Job	**24,075**	**13.9%**
Turnover *(within the trade)*	12,644	7.3%
Turnout *(left the trade)*	11,431	6.6%
• Different Job Outside Industry	6,928	4.0%
• Related Job Within Industry	2,771	1.6%
• Retired from Workforce	1,732	1.0%

ENTRY-LEVEL TECHNICIANS

Over one of every four respondents looks to technical school programs for recruiting entry-level technicians, followed by a preference for online ads and then newspaper ads. One in nine says they do not hire entry-level technicians.

Recruiting Entry-Level Technicians

Technical Schools	26.7%
Online Ads	18.5%
Newspaper Ads	17.8%
Don't Hire Entry-Level	11.0%
Social Networks	8.8%
Automotive Associations	6.3%
Career Fairs	5.1%
Referral	2.9%
Other	2.9%

Almost two out of three respondents (63.9%) identified one collision repair school in their area and two of every five (42.4%) identified a second one. Fifty-one percent rated their schools as Very Good or Excellent. Two-thirds (64.2%) also reported hiring from these schools and almost all (92.5%) would hire more.

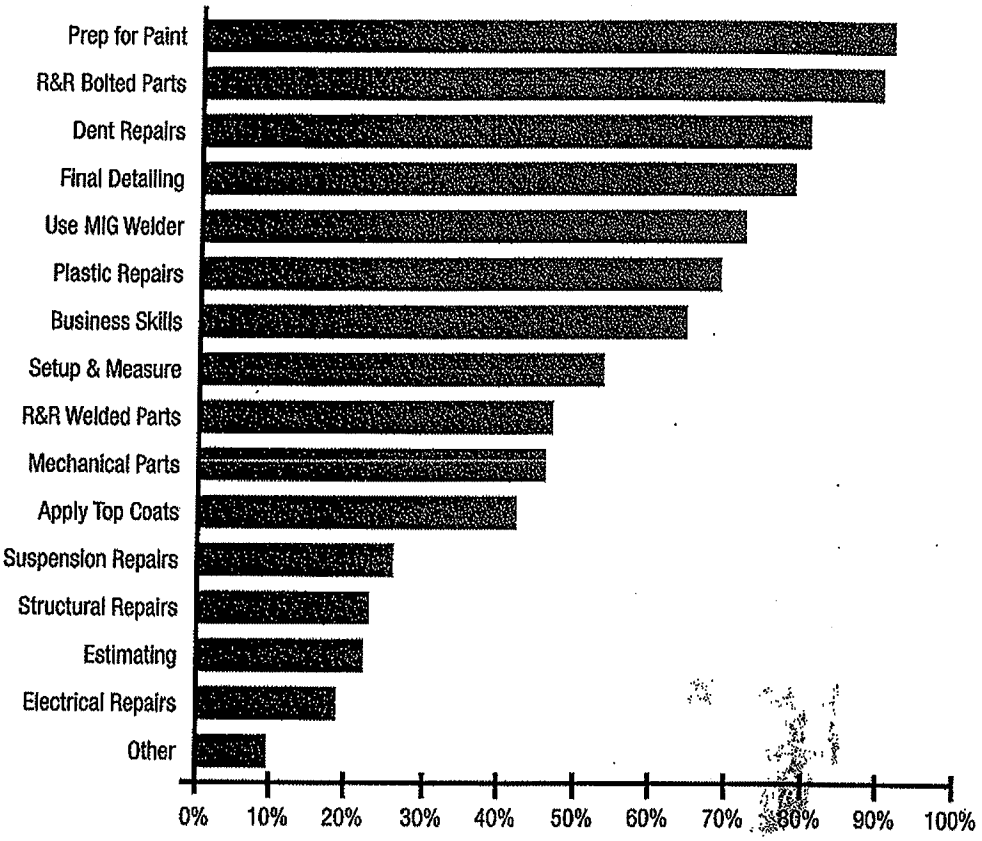
Three out of ten (28.8%) reported at least one employee on a school advisory committee, significantly higher than 19% in 2007.

TECHNICAL TRAINING PROGRAMS

Survey respondents indicated which tasks they would expect a technical school program graduate to be able to perform with very little supervision. Respondents chose an average of 8.3 tasks, higher than in 2007 (7.5 tasks).

New tasks added for 2013 were Basic Business Skills and Estimating. Sixty-five percent selected Business Skills, ahead of Setup and Measure (54%). Estimating at 22% was above only Electrical Repairs (19%).

Entry-Level Technician Task Expectations



CONCLUSIONS

- **The Collision Repair Industry is predominantly independent businesses that continue to decrease in number while increasing in average size, number of employees, and sales volume.**
- **One of every two shops now report six or more technicians, although the number of production technicians has decreased overall.**
- **The average age of technicians appears to have leveled off at just under 39 years old.**
- **Average technician income has again increased, is still higher than most comparable trades, and has almost one of every five earning $70,000 or more.**
- **Collision repair businesses have increased technician benefits slightly in the last six years.**
- **Technician turnover (within the industry) and technician turnout (leaving the industry) have decreased significantly, while current retirements have remained steady.**
- **One in every four businesses looks to technical school programs for recruiting entry-level technicians.**
- **Two-thirds of businesses have hired from a collision repair school program in their area and almost all would hire again.**
- **Participation on technical school advisory committees has increased (from 19% to 29%) over the past six years.**
- **Expectations for collision repair skills of technical school program graduates have remained steady over the years with "Prep for Paint" and "R&R Bolted Parts" still the top two tasks.**

Collision Repair Education Foundation
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CollisionEducationFoundation.org

COLLISION REPAIR EDUCATION™ FOUNDATION
I-CAR

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PLAN OF ACTION - PRE-VALIDATION
Six Year

DEPARTMENT: Auto Collision PROGRAM: Industrial Technology

List below as specifically as possible the actions which the department plans to take as a result of this program review. Be sure to address any problem areas which you have discovered in your analysis of the program. Number each element of your plans separately and for each, please include a target date. Additionally, indicate by the number each institutional goal and objective which is addressed by each action plan. (See Institutional Goals and Objectives)

RECOMMENDATIONS TO IMPROVE **STUDENT LEARNING OUTCOMES** AND ACHIEVMENT	**Theme/Objective/ Strategy Number AHC from Strategic Plan**	**TARGET DATE**
Improve student learning outcomes pertaining to water-born base coat paint application and blending methods.	2.2.2	12/12/20

RECOMMENDATIONS TO ACCOMMODATE CHANGES IN **STUDEN' CHARACTERISTICS**	**Theme/Objective/ Strategy Number AHC from Strategic Plan**	**TARGET DATE**
Enrollment Changes The Auto Collision Program plans to participate in active outreach efforts at High School level in the local and surrounding area to recruit students.	2.2.1	Ongoing
Demographic Changes Develop and enrollment management plan with the Public Information Offic that will address anticipated demographic changes in response to the service learning needs of students in the Auto Collision Program.	1.1.3	Ongoing

RECOMMENDATIONS TO IMPROVE THE **EDUCATIONAL ENVIRONMENT**	**Theme/Objective/ Strategy Number AHC from Strategic Plan**	**TARGET DATE**
Curricular Changes Continue to improve student success throughout the Auto Collision curriculu pertaining to certificate and degree completion. Also, to integrate more water-based pa training in refinishing courses to meet industry standards.	2.2.3	12/12/20

Co-Curricular Changes Continue working with other related programs to increase student employme opportunities.	4.2.1	Ongoing
Neighboring College and University Plans NA		
Related Community Plans NA		

RECOMMENDATIONS THAT REQUIRE ADDITIONAL RESOURCES	Theme/Objective/ Strategy Number AHC from Strategic Plan	TARGET DATE
Facilities Enclose the outside lab area with industrial grade curtains to provide protection from weather conditions and grinding operations.	3.4.3	12/12/16
Equipment Provide sufficient budget to manage the raising costs of materials and equipment needed to Operate a safe and reasonably managed Auto Collision Program.	3.2.5	12/12/18
Staffing Provide faculty with profession development opportunities to enhance knowledge of new Industry processes and developments. Provide a full time department secretary position that meets the high demands of the Auto collision Program and support the programs need to potentially higher additional staff to support growth of the program.	3.1.3 3.3.3 3.1.3	Ongoing 1/22/16

Section 3

APPENDICES

Validation Team Member List

Executive Summary

Post Validation Plan of action

PROGRAM REVIEW -- VALIDATION TEAM MEMBERS

TO: Academic Dean Date: 2/15/15

From: Eric C. Mason

We recommend the following persons for consideration for the validation team:

DEPARTMENT Auto Body and Collision Repair PROGRAM

Board Policy requires that the validation team be comprised of the dean of the area, one faculty member from a related discipline/program, and two faculty members from unrelated disciplines.

Gabriel Marquez	Welding
(Name)	(Related Discipline/Program)
Stephen O'Neal	Life and Physical Science
(Name)	(Unrelated Discipline/Program)
Donald Philbin	Life and Physical Science
(Name)	(Unrelated Discipline/Program)

At the option of the self-study team, the validation team may also include one or more of the following: a. someone from a four-year institution in the same discipline; someone from another community college in the same discipline; a high school instructor in the same discipline; a member of an advisory committee for the program. Please complete the following as relevant to your program review.

_____ _____
(Name) (Title)

Affiliation:_____ Telephone Contact Number:_____

Address_____
(Mailing) City/State/Zip email address

_____ _____
(Name) (Title)

Affiliation:_____ Telephone Contact Number:_____

Address_____
(Mailing) City/State/Zip email address

_____ _____
(Name) (Title)

Affiliation:_____ Telephone Contact Number:_____

Address_____
(Mailing) City/State/Zip email address

APPROVED:_____ 2/20/15
Academic Dean Date

EXECUTIVE SUMMARY
Validation Team Report

Automotive Body

1. MAJOR FINDINGS

Strengths of the program

Faculty

- The currency of the program's curriculum and technology is maintained by the dedication of the instructors and the stewardship of the Advisory Committee members.

- Student survey showed that 100% of students are satisfied or highly satisfied with the quality of instructors' knowledge in the industry.

- The faculty is greatly involved with numerous outreach events geared towards middle and high school students collaborating with other disciplines in the department.

Curriculum

- The program's curriculum allows students the opportunity to choose where they can fit into the workforce with specialization as Body Technician, Painter, Estimator, Insurance Adjuster, and Shop Owner.

- Student survey indicated that about 92% of students are satisfied or highly satisfied with quality of instruction within the program.

Facilities

- The recent move into the new Industrial Technology building has provided more instructional space for labs, paint booths and classrooms. This has dramatically improved the educational experience for students.

- State of the art technology and facilities, with the exception of the items not completed as planned.

- Purchased and updated equipment including Chief Goliath Frame Rack, new MIG/TIG welders, and two Measuring Systems by successfully using CTEA grant funds, equipment prioritization and donations over the past several years.

Enrollment

- The program's success and retention rate is consistently higher than AHC overall rate.
- Since 2008, degree and certificate completion rates have increased by 300%.
- The number of successful classes during the day and in the evening has increased.
- All extra-curricular activities are geared towards student success including active Student Car Club and a development of new Skills USA student club.

Concerns of the Program

- The Banner software that the college uses does not recognize articulated courses with feeder high schools. This creates barriers when students register for classes.
- Department clerical supports continues to be an issue especially with a part time secretary.
- While supply and paint prices have gone up by 5-15%, the program's budget remained the same and in some years has even been lowered.
- Recent SLOs assessment indicated a student weakness in the area of using urethane paint. It will require additional funding to the program to provide more hands on training to the students.
- Student success rate for AB 356 evening section is lower than the overall in the program.
- There is a lack of instructors in the area who meet the California community college minimum qualifications to teach classes within the discipline.
- Student survey showed a significant percent of students believing that there is a possible disconnect between counselors and the program.
- Auto Body Program can use better library resources and tutorial services.

2. RECOMMENDATIONS

- Locate funding to provide more hands on training for students specifically in the area of using urethane paint. The program budget needs to be increased by $4,125 per year.

- Facilitate a discussion with adjunct faculty to determine how the success rate for the evening offering of AB 356 can be improved.

- Request Professional Development Funds for faculty to attend more classes and training specifically tied to Auto Body industry.

- Continue working closely with the Career, Job, and Placement Center (CJPC) to assists students with developing resume and employability.

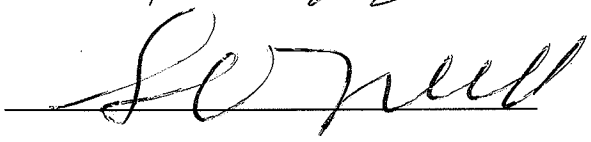
- Work closely with the Counseling department to ensure student success.

- Ensure availability of appropriate resources in libraries.

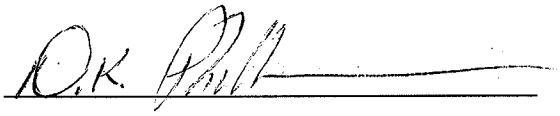
VALIDATION TEAM SIGNATURE PAGE

Gabriel Marquez, Instructor, Welding

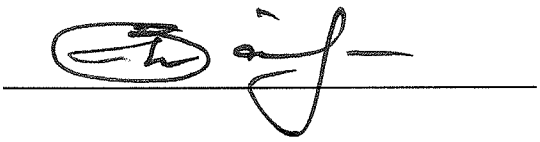
Stephen O'Neill, Instructor, Life & Physical Science



D.K.Philbin, Instructor, Life & Physical Sciences



Larissa Nazarenko, Interim Dean, Academic Affairs



PLAN OF ACTION - POST-VALIDATION
Six Year

DEPARTMENT: Auto Collision PROGRAM: Industrial Technology

List below as specifically as possible the actions which the department plans to take as a result of this program review. Be sure to address any problem areas which you have discovered in your analysis of the program. Number each element of your plans separately and for each, please include a target date. Additionally, indicate by the number each institutional goal and objective which is addressed by each action plan. (See Institutional Goals and Objectives)

RECOMMENDATIONS TO IMPROVE **STUDENT LEARNING OUTCOMES AND ACHIEVMENT**	**Theme/Objective/ Strategy Number AHC from Strategic Plan**	**TARGET DATE**
Improve student learning outcomes pertaining to water-born base coat paint application and blending methods. AB 358 SLO # 4 and 5 show a deficiency in the hands on training spraying and working with water born urethane base-coat paints. This is and industry standard in Santa Barbra County and typically used Statewide. The first recommendation would be to increase the yearly auto collision budget by 4,125.00 per year. Another strategy may be to solicit outside donations from industry partners.	2.2.2	12/12/20
Improve access to library resources pertaining to auto body curriculum and related learning material to support student learning outcomes and student success.	2.2.2	12/12/17
This may be fostered by developing a closer relationship with library personal and working to ensure text books on loan and supplementary resources: video's, magazines, and trade publications.	2.2.2	12/12/17

RECOMMENDATIONS TO ACCOMMODATE CHANGES IN **STUDENT CHARACTERISTICS**	**Theme/Objective/ Strategy Number AHC from Strategic Plan**	**TARGET DATE**
Enrollment Changes		
The Auto Collision Program plans to participate in active outreach efforts at the High School level in the local and surrounding area to recruit students.	2.2.1	Ongoing
Continue student success efforts, working closely with CTE counselors to improve student degree and certificate completion.	2.2.1	Ongoing
Demographic Changes		
Develop and enrollment management plan with the Public Information Office that will address anticipated demographic changes in response to the service learning needs of students in the Auto Collision Program.	1.1.3	Ongoing

RECOMMENDATIONS TO IMPROVE THE **EDUCATIONAL ENVIRONMENT**	**Theme/Objective/ Strategy Number AHC from Strategic Plan**	**TARGET DATE**
Curricular Changes Continue to improve student success throughout the Auto Collision curriculum pertaining to certificate and degree completion. Also, to integrate more water-based paint training in refinishing courses to meet industry standards.	2.2.3	12/12/20
Co-Curricular Changes Continue working with other related programs to increase student employment opportunities. This would include working closely with the Career Job and Placement Center to assist Auto Collision advanced students with resume development and employability efforts. Students will also be encouraged to develop nation wide portfolios on line with the Workhands network used for national job placement. Implement an annual start of the semester meeting with adjunct faculty to discuss strategies on student retention and success focusing on student learning outcomes and effectiveness of course goals.	4.2.1 2.2.3	Ongoing 8/17/15
Neighboring College and University Plans NA		
Related Community Plans NA		

RECOMMENDATIONS THAT REQUIRE ADDITIONAL RESOURCES	**Theme/Objective/ Strategy Number AHC from Strategic Plan**	**TARGET DATE**
Facilities Enclose the outside lab area with industrial grade curtains to provide protection from weather conditions and grinding operations.	3.4.3	12/12/16
Equipment Provide sufficient budget to manage the raising costs of materials and equipment needed to operate a safe and reasonably managed Auto Collision Program.	3.2.5	12/12/15

Staffing		
Provide faculty with professional development opportunities to enhance knowledge of new Industry processes and developments. Request Professional Development funds for a minimum of one industry training class each year to be completed by the full time faculty instructor.	3.1.3 3.3.3	Ongoing
Hire an additional highly qualified adjunct faculty member for the program.	3.1.3	1/22/16
Provide a full time department secretary position that meets the high demands of the Auto collision Program and support the programs need to potentially hire additional staff to support growth of the program.	3.1.3	1/22/16

PLAN OF ACTION – Post-Validation

Review and Approval

Plan Prepared By

Eric Mason _____ Date: 5/26/15

_____ _____ Date: _____

_____ _____ Date: _____

_____ _____ Date: _____

_____ Date: _____

Reviewed:

Eric Mason, Department Chair, Industrial Technology

_____ Date: 5/26/15

*Signature of Department Chair indicates approval by department of Plan of Action.

Reviewed:

Larissa Nazarenko, Interim Dean of Academic Affairs

_____ Date: 5/26/15

_____, Vice President, Academic Affairs

_____ Date: 7-2-15