

UNIVERSITY OF HAWAI'I COMMUNITY COLLEGES
ANNUAL INSTRUCTIONAL PROGRAM REVIEW
PROCEDURES, COMPONENTS, AND MEASURES

AUTO BODY REPAIR AND PAINTING PROGRAM

Hawai'i Community College

Introduction:

Program Mission Statement and brief description of the program including a listing of program level student learning outcomes.

The Auto Body Repair and Paint program's endeavor is to provide the maximum learning opportunity for students to build proficiency in auto body repair and paint technology, current industry collision and paint methodology, related field manual dexterity, and good sound work ethics; in alignment with UHCC's and HawCC mission to serve all segments of our Hawai'i Island community.

The Auto Body Repair and Painting program follows the College's "open door admission" policy for all students entering the program. The program is open to any high school graduate or anyone 18 years of age or older. Students are accepted into the program each fall semester on a first-come, first-served basis. Students are advised to complete the English and math placement testing, for placement into general education courses, to meet program graduation requirements.

The Auto Body Repair and Paint Program level student learning outcomes are as follows:

1. Demonstrate entry-level skills for accuracy in structural repairs, non-structural repairs, painting theory, plastic repair and plastic refinishing.
2. Demonstrate competence in safe & proper work attitude, identification of hand tools, power tools, the characteristics of various welding and cutting techniques applied on current types of metals used on OEM replacement parts, metal straightening techniques, rust repair solutions, and corrosion protection.
3. Demonstrate competence in proper safety procedures & practices for automotive refinishing, operation of OSHA, HIOSH, Right-To-Know Act, EPA laws & regulations, refinish equipment, application of color, matching, problems, blending, plastic repair and refinishing.
4. Demonstrate competence in collision damage appraisal, panel removal & alignment, door & quarter panel replacement, movable & stationary glass service, and electrical components.

5. Demonstrate competence in structural damage analysis, straightening, & replacement panels, steering & suspension systems, heating & cooling systems
6. Demonstrate computation, communication, critical thinking, research, and problem solving skills as well as an appreciation for the diversity of cultures, community, and the environment.
7. Take pride in the quality of projects and performance; possess responsible work ethics and standards, and model attitudes of professionalism and appearance.

Part I. Quantitative Indicators for Program Review

| | AY 04-05 | AY 05-06 | AY 06-07 |
|---|-------------|-------------|-------------|
| ABRP | | | |
| 1. Annual new and replacement positions in the State | 1005 | 1005 | 1005 |
| 2. Annual new and replacement positions in the County | 12 | 12 | 12 |
| 3. Number of majors | 36 | 38 | 31 |
| 4. Student Semester Hours for program majors in all program classes | 396 | 388 | 275 |
| 5. Student Semester Hours for Non-program majors in all program classes | 0 | 12 | 0 |
| 6. Student Semester Hours all program classes | 396 | 400 | 275 |
| 7. FTE Program enrollment | 26.4 | 26.67 | 18.33 |
| 8. Number of classes taught | 12 | 12 | 12 |
| 9. Determination of program's health based on demand (Health, Cautionary, or Unhealthy) | | | |
| 10. Average Class Size | 16.5 | 16.42 | 11.42 |
| 11. Class fill rate | 91.67% | 91.2% | 63.43% |
| 12. FTE of BOR appointed program faculty | 2 | 2 | 2 |
| 13. Student/Faculty ratio | 18:1 | 19:1 | 15.5:1 |
| 14. Number of Majors per FTE faculty | 22.5 | 23.75 | 19.38 |
| 15. Program Budget Allocation (Personnel, supplies and services, equipment) | \$81,496.00 | \$81,896.00 | \$80,686.00 |
| 16. Cost Per Student Semester Hour | \$205.80 | \$204.74 | \$293.40 |
| 17. Number of classes that enroll less than ten students | 0 | 0 | 6 |
| 18. Determination of program's health based on Efficiency (Healthy, Cautionary, or Unhealthy) | | | |
| 19. Persistence of majors fall to spring | 86.11% | 78.95% | 67.74% |
| 20. Number of degrees earned (annual) | 7 | 5 | 4 |
| 21. Number of certificates earned (annual) | 4 | 10 | 5 |
| 22. Number of students transferred (enrolled) to a four-year institution in UH | 0 | 0 | 0 |
| 23. Perkins core indicator: Academic Attainment(1P1) | 45.45% | 53.85% | 42.86% |
| 24. Perkins core indicator: Technical Skill Attainment (1P2) | 85.71% | 86.67% | 72.22% |
| 25. Perkins core indicator: Completion Rate (2P1) | 28.57% | 53.33% | 22.22% |
| 26. Perkins core indicator: Placement in Employment Education, and Military (3P1) | 66.67% | 100.00% | 75.00% |
| 27. Perkins core indicator: Retention in Employment (3P2) | 100.00% | 75.00% | 100.00% |
| 28. Perkins core indicator: Non Traditional Participation (4P1) | 17.86% | 15.38% | 20.00% |
| 29. Perkins core indicator: Non Traditional Completion (4P2) | 25.00% | 20.00% | .00% |

| | | | |
|--|-----|-----|-----|
| 30. Determination of program's health based on effectiveness (Healthy, Cautionary, Or Unhealthy) | | | |
| 31. Determination of program's overall health (Healthy, Cautionary, or Unhealthy) | | | |
| 32. Number of FTE Faculty | 1.6 | 1.6 | 1.6 |

Part II. Analysis of the Program

Strengths and weaknesses in terms of demand, efficiency, and effectiveness based on an analysis of data.

The program is healthy, because data elements are reasonable in comparison to the division.

Data elements 1-9, demand elements, for new and replacement positions, numbers of majors, SSH's, and FTE program low enrollment should improve with each subsequent year.

Program efficiency for average class size, fill rate, student/faculty ratio, number of majors per FTE faculty, program budget allocation, cost per SSH, and number of classes less than ten students has been steadily improving over the review years. Cost per student semester hours have been declining indicating the program is improving in its efficiency. Hopefully, through recruitment efforts, enrollment will rise. In this area, the program instructors agree that it is cautionary.

Program effectiveness including majors fall to spring semesters, degrees earned, Perkins 1P1, 1P2, 2P1, 3P1, 3P2, 4P1, and 4P2 are reasonable or better as compared to programs within the division. We have non-traditional participation and good completion rates for them, (4P1, 4P2) while over-all completion rates (2P1), although improved significantly, could be better.

The program's over-all health is "Healthy" and improving.

Significant Program Actions

(new certificates, stop-out; gain/loss of positions, results of prior year's action plan)

Accomplishments of prior year's action plan items:

1. Developed student learning outcomes for all program courses.

| COURSE | SLOS | | | | | | | |
|---------|-------|------|-------|-------|-------|-------|-------|--|
| | SLO 1 | SLO2 | SLO 3 | SLO 4 | SLO 5 | SLO 6 | SLO 7 | |
| ABRP 20 | | X | X | | | X | X | |
| ABRP 21 | | X | | | | X | X | |
| ABRP 22 | | X | | | | X | X | |
| ABRP 23 | | X | | | | X | X | |

| | | | | | | | | |
|---------|--|---|---|---|---|---|---|---|
| ABRP 24 | | | X | | | | X | X |
| ABRP 25 | | | X | X | | | X | X |
| ABRP 30 | | X | | X | | | X | X |
| ABRP 31 | | | | X | | | X | X |
| ABRP 32 | | | | X | | | X | X |
| ABRP 33 | | | | X | | | X | X |
| ABRP 34 | | | | X | | | X | X |
| ABRP 35 | | | | X | | | X | X |
| ABRP 40 | | | | | X | | X | X |
| ABRP 41 | | X | | | X | | X | X |
| ABRP 42 | | X | X | | X | X | X | X |
| ABRP 43 | | | X | | X | | X | X |
| ABRP 44 | | | | | X | | X | X |
| ABRP 45 | | | | | X | | X | X |
| ABRP 50 | | X | | | | X | X | X |
| ABRP 51 | | X | X | | X | X | X | X |
| ABRP 52 | | X | X | | | X | X | X |
| ABRP 53 | | | | | | X | X | X |
| ABRP 54 | | | | X | | X | X | X |

2. Continued our effort on student recruitment.
3. Transformed the old steam cleaning room into a second year classroom with zero cost to the program. All paint materials and supplies, air conditioner, and students' input were all donated.
4. Acquired a Miller Aluminum MIG welder to upgrade our advance welding area.
5. Acquired funding to have the systems auto body program instructors convene at our facility for the new welder demonstration and training, and convene after for a PCC meeting.
6. Created certificate of completion for the programs first semester and second semester

Part III. Action plan (Continue efforts)

1. Teach the basic fundamentals of auto body repair and painting, salable skills, good work attitudes, and strive to for 60-80% of its graduates with 100% job placement with entry-level skills or higher, into the auto body collision repair field or related occupations. With the remaining graduates guided to other field of occupations or unrelated decisions.
2. Provide students hands-on experience through pseudo projects, from donated body panels and vehicles to meet the competencies needed to do live projects. Team up students into groups of two or three and assign teams various types of

live projects. Instructors need to solicit and select a minimum of six to ten live projects annually according to students' skill level from inter-department, faculty, staff/family and community.

3. Keep abreast of changing technology by attending work shops and seminars offered here, neighbor islands and also on the mainland.
4. Encourage students to participate in attaining their ASE Automotive Service Excellence Certification.

Part IV. Resource Implications (physical, human, financial)

CHART 1: FACILITIES ASSIGNED TO PROGRAM

| List Bdng/Rm/Lab/Shop | Describe Renovation/Repair Needed | Estimated Cost |
|--|---|-----------------------|
| Building 321/201 Existing Collision Repair Systems | <ul style="list-style-type: none"> -remove and disassemble both frame repair systems -relocate frame systems to old paint spray area -reassemble, secure and level frame system -remove in ground hoist, dispose and resurface floor | \$1,125,000 |
| Building 321/201 Old Condemned Spray Booth and Paint Prep Room | <ul style="list-style-type: none"> -remove electrical from spray booth -remove compressed air lines from spray booth -remove SAS air supply system from spray booth -remove water pipe line and spray booth floor drain -disassemble and dispose of old condemned spray booth -remove existing spray booth curbing -level existing spray booth floor -level existing paint prep room floor -install ceiling light fixtures in old spray booth area -install welding plug outlet, upgrade electrical outlets | |
| Building 321/201 Spray Booth, Prep Station, and Adjoining Paint Mixing and Storage Room | <ul style="list-style-type: none"> -painting system to be located in old collision repair area -erect new down draft spray booth -erect paint prep station | |

| | | |
|--|---|----------------|
| | -erect adjoining paint mixing and storage room to booth -install electrical light fixtures -install free air supply system -install self contained compressed air supply system -relocate and set-up paint mixing bank, scales, paint recyclers, gun washers, and paint safe storage | |
| Building 321/201 Old Steam Cleaning Room turned into Second Year Class Room | -remove present equipment -repaint ceiling and walls -install internet cable -install air conditioning system | \$4,000 |
| Building 321/201 Lab Bay Roll Up Door | -replace broken 20 foot wide roll up door (out of commission more than six years, two repair stalls are dead space) | \$6,000-10,000 |

CHART 2: INVENTORY LIST: EQUIPMENT and CONTROLLED PROPERTY

| Program Assigned Equipment (E) and Controlled Property (CP) (List in order of chronological depreciation date) | Category E = item value > \$5K CP = item value \$1K - \$5K | Expected Depreciation Date | Estimated Replacement Cost |
|---|--|-----------------------------------|-----------------------------------|
| (1982) Whitney Frame Alignment System | E | 1992 | \$75,000.00 |
| (1982) Whitney 614 Brake Bending | E | 1992 | \$7,000.00 |
| (1982) South Bend 10 inch Metal Lathe | E | 1992 | \$15,000.00 |
| (1982) Kar Grabber Repair System | E | 1992 | \$20,000.00 |
| (1982) Diarco Power Shear | E | 1992 | \$8,500.00 |
| (1986) Glas Craft System Spray Up | E | 1996 | \$5,500.00 |
| (1994) Sullair Air Compressor | E | 2004 | \$8,500.00 |
| (1999) Lincoln | CP | 2007 | \$4,500.00 |

| | | | |
|---|----|------|-------------|
| Squarewave TIG Welder | | | |
| (1999) 3-D Combination Universal Laser | CP | 2009 | \$4,800.00 |
| (2000) Uni-Ram Solvent Recycle System | CP | 2005 | \$4,500.00 |
| (2000) Solar MIG Welder W/Cart | CP | 2008 | \$2,300.00 |
| (2002) DuPont Chroma Vision | E | 2007 | \$7,250.00 |
| (2002) DuPont Mini Colornet | CP | 2007 | \$4,700.00 |
| (2002) Dedpes 88 Mixer Base | CP | 2012 | \$1,600.00 |
| (2002) Sartorius Scale | CP | 2012 | \$1,800.00 |
| 92002) IRT 302 Paint Cure System | CP | 2010 | \$4,600.00 |
| (2002) Dell Optiplex GX240 Computer | CP | 2007 | \$1,500.00 |
| (2002) Dell Optiplex GX240 Computer | CP | 2007 | \$1,500.00 |
| (2002) 3M Self Contained Respirator | CP | 2009 | \$1,200.00 |
| (2002) 3M Self Contained Respirator | CP | 2009 | \$1,200.00 |
| (2002) 3M Self Contained Respirator | CP | 2009 | \$1,200.00 |
| (2002) 3M Self Contained Respirator | CP | 2009 | \$1,200.00 |
| (2002) Viewsonic Projector | CP | 2008 | \$2,500.00 |
| (2004) Toshiba Satellite A40 Lap Top Computer | CP | 2008 | \$1,400.00 |
| (2004) Toshiba Satellite A40 Lap Top Computer | CP | 2008 | \$1,400.00 |
| (2004) Genesis Scan Tool | CP | 2008 | \$3,000.00 |
| (2005) Pro Spot Squeeze Type Resistance Spot Welder | E | 2013 | \$16,000.00 |
| (2005) Lincoln | CP | 2013 | \$2,900.00 |

| | | | |
|------------------------------------|--|--|--|
| Precision TIG 185 Ready Pak Welder | | | |
|------------------------------------|--|--|--|

CHART 2: PERSONNEL

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|---------------------------------|
| Instructors |
| Mike Saito, Assoc. Professor |
| Lloyd Sanborn, Assoc. Professor |

CHART 3: BUDGET REQUEST

| Describe Item \$25K line item | Biennium Request First Yr. | Biennium Request Second Yr. | Reallocation of Funds and/or Position | X Amt. Line Item |
|----------------------------------|----------------------------------|-----------------------------------|---|---------------------|
| Air Compressor | | \$8,500.00 | | 1 |
| Air Dryer Unit | | \$2,500.00 | | 1 |
| Mig Welder | | \$9,500.00 | | 5 |
| Alumimum MIG Welder | | \$2,500.00 | | 1 |
| HVLP Paint Spray Gun | \$4,200.00 | | | 6 |
| 5" Air Grinders | \$1,800.00 | | | 10 |
| DA Sanders | \$2,100.00 | | | 10 |
| R/F Air Drills | \$1,800.00 | | | 10 |
| Angle Die Grinder | \$1,600.00 | | | 10 |
| Projector | | \$2,500.00 | | 1 |
| Air Conditioner System | \$4,500.00 | | | |