

# University of Hawaii Maui College

## 2011 Annual Report of Instructional Program Data

### Auto Body Repair and Painting

#### Program Mission:

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The Auto Body Repair and Painting Program (ABRP Program) aligns itself with the concepts of as a learning-centered program as University of Hawaii Maui College has designated it's self as a learning-centered institution. The ABRP Program has also has included the concept of the lifelong learner into the program curriculum to allow for additional non-traditional students to enroll in the program, for either personal enrichment or to attain additional knowledge for advancement in the trade.

The ABRP Program is offered in a self-paced module format to fulfill the specific needs of each individual student. First, the self-paced module format fills the needs of students striving to obtain skills for entry-level employment in the trade upon receiving their Certificates of Achievement and Associate in Applied Science Degrees. Next, students that are currently employed and seeking to improve their skills in specific areas of the trade are satisfied, and ultimately continue on to receive their Certificates and Degrees from the ABRP Program. Finally students enrolling for self- knowledge also have their needs fulfilled. Instruction in the ABRP Program for all three types of students can be accomplished at the same time.

The ABRP Program allows students to enter in to the program in either the Fall Semester or Spring Semester and to also have the opportunity to specialize in either of the two distinctive areas of the trade once the core subjects for the ABRP Program are mastered.

There are capstone modules for each of the four sections of the ABRP Program. For students enrolled in the ABRP 20 modules (corrosion and dent repair), their capstone module requires them to successfully complete an assigned repair on a live job on their own with minimal help from the instructor. Students enrolled in the ABRP 22 (refinishing) series of modules, must do a complete refinish on a live project on their own, again with minimal help from the instructor. Next, students enrolled in the ABRP 40 (major collision repair) series of modules are trained work as a team and complete a major collision repair, (because of possible issues of liability, students apply their skills learned to an insurance total that is then disposed of when done) again with minimal help from the instructor. Finally for the ABRP 41 (minor collision repair) series of modules, the student must individually successfully complete a minor collision repair that encompasses all skills learned, again with minimal help from the instructor.

## Part I: Program Quantitative Indicators

### Overall Program Health: **Cautionary**

Majors Included: ABRP

Demand Indicators		Program Year			Demand Health Call
		08-09	09-10	10-11	
1	New & Replacement Positions (State)	126	21	20	<b>Unhealthy</b>
2	New & Replacement Positions (County Prorated)	3	3	2	
3	Number of Majors	25	27	31	
4	SSH Program Majors in Program Classes	262	271	256	
5	SSH Non-Majors in Program Classes	98	99	146	
6	SSH in All Program Classes	360	370	402	
7	FTE Enrollment in Program Classes	12	12	13	
8	Total Number of Classes Taught	10	12	10	

Efficiency Indicators		Program Year			Efficiency Health Call
		08-09	09-10	10-11	
9	Average Class Size	18	15.5	20.1	<b>Healthy</b>
10	Fill Rate	100%	100%	100%	
11	FTE BOR Appointed Faculty	1	1	1	
12	Majors to FTE BOR Appointed Faculty	25	27	30.5	
13	Majors to Analytic FTE Faculty	33.8	33.1	41.2	
13a	Analytic FTE Faculty	0.7	0.8	0.7	
14	Overall Program Budget Allocation	Not Reported	\$71,646	\$70,856	
14a	General Funded Budget Allocation	Not Reported	\$71,646	\$70,027	
14b	Special/Federal Budget Allocation	Not Reported	\$0	\$0	
15	Cost per SSH	Not Reported	\$194	\$176	
16	Number of Low-Enrolled (<10) Classes	0	2	0	

Effectiveness Indicators		Program Year			Effectiveness Health Call
		08-09	09-10	10-11	
17	Successful Completion (Equivalent C or Higher)	61%	60%	53%	<b>Cautionary</b>
18	Withdrawals (Grade = W)	15	6	10	
19	Persistence (Fall to Spring)	73%	60%	81%	
20	Unduplicated Degrees/Certificates Awarded	8	3	3	
20a	Degrees Awarded	1	2	1	
20b	Certificates of Achievement Awarded	0	0	1	
20c	Academic Subject Certificates Awarded	0	0	0	
20d	Other Certificates Awarded	11	2	4	
21	Transfers to UH 4-yr	0	0	0	
21a	Transfers with credential from program	0	0	0	
21b	Transfers without credential from program	0	0	0	

Distance Education: Completely On-line Classes		Program Year			
		08-09	09-10	10-11	
22	Number of Distance Education Classes Taught	0	0	0	
23	Enrollment Distance Education Classes	0	0	0	
24	Fill Rate	0%	0%	0%	
25	Successful Completion (Equivalent C or Higher)	0%	0%	0%	
26	Withdrawals (Grade = W)	0	0	0	
27	Persistence (Fall to Spring Not Limited to Distance Education)	0%	0%	0%	

Perkins IV Core Indicators 2009-2010		Goal	Actual	Met	
28	1P1 Technical Skills Attainment	90.05	100.00	Met	
29	2P1 Completion	44.50	25.00	Not Met	
30	3P1 Student Retention or Transfer	55.50	83.33	Met	
31	4P1 Student Placement	50.50	100.00	Met	
32	5P1 Nontraditional Participation	16.00	10.00	Not Met	
33	5P2 Nontraditional Completion	15.10	0.00	Not Met	

Last Updated: November 9th, 2011

## Part II: Analysis of the Program

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Though the number of positions listed for the County of Maui, which includes Molokai and Lanai, appeared low in the demand indicator section; the auto collision and refinishing trade here in the County of Maui has always been seeking skilled or semi-skilled technicians. During the Academic Year of 2010/11, several local body repair and refinish shops contacted the UHMC ABRP Program for advanced or second year students. A preference for students nearing graduation from the ABRP program for employment was requested. Positions offered were for both part-time and full-time collision or corrosion technicians and refinish technicians. So the two positions open here on Maui may not be an accurate account of available jobs at any given time. In addition, many of our students receive employment not only at a body and refinish shop, but also find employment at a related businesses, such as a glass repair facility, new auto parts stores and outlets, recycled auto parts facilities, or an automotive paint supply store. The UHMC ABRP Program has always been able to fulfill the requests of the auto collision and refinish industry, as well as other related businesses in Maui County.

It is my perspective that the ABRP Program has been able to maintain its enrollments due to the curriculum being offered in a self-paced module format designed to fulfill the specific needs of each individual student. On the down side, program majors enrolled in the ABRP Program has been not a strong point for this program. Because instruction on auto collision, corrosion and refinishing is provided in the self-paced format; many students enroll as part-time students for several reasons and it is these students that often choose to not declare themselves as majors in the ABRP Program. First, there are students are just feeling out the trade to see if they would like to pursue this as a career, so they would enroll in only the first module. Next, the self-paced module format fills the needs of students striving to obtain skills for entry-level employment in the trade upon receiving their Certificates of Achievement and Associate in Applied Science Degrees at their desired pace. Third, students that are currently employed in the trade or a related trade, enrolling in a class or two only to improve their knowledge and level of proficiency in the trade. Finally students enrolling for self- knowledge are also able to have their needs fulfilled. In my conversation with these students, they stated that they would prefer not declare themselves as majors in the program, as they believed it would require a commitment from them to eventually enroll full-time and also to complete all the required courses for a degree seeking student just to remain in the program. All full-time students enrolled in the program usually declare themselves as majors in the program as they are working towards receiving their certificates and degrees from the program.

With the economic downturn during the 2009/10 and 2010/11 academic years many students who would have returned, are now work longer hours at their places of employment or found other additional employment to supplement family incomes. An example is a younger student has to work at three part-time jobs to equal 40 hrs week of employment to supplement the family income. Also several students that were working part-time were encouraged by their employers to work full-time hours because their employers not wanting to hire additional part-time employees. In turn, the students were now unable to maintain their class schedule. Not only were majors lost due to this issue, but also non-majors. Traditionally the persistence of program majors from the fall semester into the spring semester is usually at 50% or near it. With the inclusion of IICAR curriculum to the program over the past four academic years as a part of the ABRP Program's action plan, student participation in classroom and laboratory exercises and activities improved. This along with other circumstances (found in Part III of this program review) had resulted in a 78% increase of persistence for returning students from the 2010 Fall Semester to the 2011 Spring Semester.

The UHMC ABRP program successfully met its goals in three areas, 1P1 Technical Skills Attainment, 3P1 Student Retention or Transfer, and 4P1 Student Placement. But fell short of goals in the other three areas: 2P1 Completion, 5P1 Nontraditional Participation, and 5P2 Nontraditional Completion.

There are several factors that may cause the completion rate of students not to be met in the Perkins 2P1 indicator. First, many of the younger students entering the program unprepared financially because they were under the impression that this is like high school where everything is provided for them. Then they find out that there is "book work" to be done and the cost of the textbook and workbook. They are now not able to complete any of their academic activities and they suddenly disappear. Also, many students are financially unprepared to obtain the tools required to progress in the program. Students without the required tools try to borrow from other students, but because the students that have the tools are reluctant to share because they are using their tools to complete their laboratory assignments and the student without their tools fall behind or stop coming to class. Next, there are students enrolled in the ABRP program seek basic training as either body technicians or refinish technicians, and leave after achieving their goals, without continuing and graduating from the program. Then occasionally there are students that are already employed and enroll only in certain classes for advancement in the auto body and refinish trade at their place of employment. Thus, if these last two groups of students have fulfilled their goals and choose to exit the program after the first or second semester, they also show up negatively in the data and this does not reveal that the student completed what they wanted to learn.

As for the Perkins 5P1 core indicator, there were several nontraditional students enrolled in the UHMC ABRP Program in the fall semester, but they did not continue on to the Spring 2011 semester. The students encountered personal, financial, and academic situations that they could not cope with and dropped out unofficially and officially in the fall semester. And for Perkins 5P2 core indicator, there was one nontraditional student that was on schedule to graduate during the 2011-12 academic year.

## Part III: Action Plan

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The Auto Body Repair and Painting Program (ABRP Program) aligns itself with the idea of a learning-centered as the University of Hawaii Maui College has designated it's self as a learning-centered institution. The ABRP Program has also has included the concept of the lifelong learner into the program curriculum to allow for additional non-traditional students to enroll in the program, as noted in Part II. Many students enroll for either personal enrichment or to attain additional knowledge for advancement in the auto body repair and refinish trade.

Retention of students is always a major issue for the ABRP Program. A very interesting situation and also a significant learning experience occurred in the ABRP Program during the Spring Semester 2010 and again during the 2010-11 year. Due to health issues of the instructor for the ABRP Program in the 2009-10 year the college hired a lecturer to help with of students. And with increased enrollments in the 2010-11 year, the college again hired a lecturer to help with the over load of students. The lecturer to assisted with the students in the laboratory. By having two instructors, one in the laboratory and one in the classroom, an interesting phenomenon happened. This arrangement, along with the inclusion of ICAR curriculum and training aids, had an impact on the retention of students in the ABRP Program, as there was an increase to 78% persistence for the 2010-11 academic year, as noted in the Effectiveness Indicators. This was in part because both instructors were able to provide more one-on-one support needed, instead of one instructor being stretched thin between 16 to 20 students, with each doing a different task or assignment in either the laboratory or classroom.

Having one instructor teaching and evaluating the students while they are actively participating in laboratory exercises and another instructor helping the students with their classroom activities, with this instructor grading the students written assignments. An alternative would be to have one instructor for the first year students and another for the second year students. I believe either system will work, but the latter being a better choice as the instructor can spend more time with their specific group of students. Especially, for the first year students that require much more guidance and encouragement to remain in and to complete the program. This could possibly be the step to place the program in the right direction in dealing with the issue of student retention. Prior to this, the UHMC ABRP Program is the only campus in the UH system that operated with only a single faculty member for the ABRP Program.

Also, during the Spring Semester 2010 the instructional handouts for several modules were reviewed. In consultation with the ABRP Advisory Committee members and with discussion with the advanced students enrolled in the program, changes were made to provide a better flow of information between learning outcomes expected of the student enrolled. The new study packets were used in the 2010-11 year. The self-paced study packets will all be revised over the coming semesters as to improve the packets to allow them to be presented in a more "user friendly format". This will hopefully improve both the retention and graduation rates for the ABRP Program in the future.

Another idea for program enhancement is to attempt to incorporate more computer skills related assignments, such as WEB CT instruction for certain subject areas related to auto body repair. Another major project for the ABRP Program is having the capabilities to allow students to be able to take their test and quizzes on line, using campus resources such as Laulima.

In Fall Semester of the 2009-10 academic year, the UHMC ABRP Program received ICAR CD based curriculum obtained through Perkins funding. This will allow the students to study at their pace, in conjunction with their textbooks (also ICAR based) and ICAR training props and materials. The students can review the subject they are trying to learn as many times as they need to insure a thorough understanding of the repair process for auto body repair or automotive refinishing. Because of health issues, the instructor was not able to install the ICAR CD program as a part of the curriculum into the program for 2010-11. The 2011-12 and 2012-13 academic years will have the ICAR CD materials completely incorporated into the program.

## Part IV: Resource Implications

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Obtain funding for an additional faculty member or a full-time lecturer. As stated in previous sections, one instructor to provide instruction and supervision in the laboratory, while the another instructor is in the classroom working with students, or one instructor for the first year students and one for the second year students. Either option is workable to enhance student retention and improve completion/graduation rates.

A resistance spot welder required for training during the instruction of collision repair was recently acquired for the ABRP Program. Another resistance spot welder is needed to be able to complete collision repairs at opposite ends of the laboratory. We are currently waiting on the improvement of the campus electrical system to upgrade the Auto Body Shop available power supply and have requested additional power sources for another resistance spot welder.

The refinishing equipment employed in the application of refinishing materials will require updating within the next year or two. This is due to the EPA mandated use of water-borne refinishing materials to lower the emission of volatile organic compounds. The existing equipment will suffice only for short-term use in the application of water-borne materials.

# Program Student Learning Outcomes

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## Assessment of Intended Student Learning Outcomes Standards

### Standard 1 - Written Communication

- Outcome 1.1 - Use writing to discover and articulate ideas.
- Outcome 1.2 - Identify and analyze the audience and purpose for any intended communication.
- Outcome 1.3 - Choose language, style, and organization appropriate to particular purposes and audiences.
- Outcome 1.4 - Gather information and document sources appropriately.
- Outcome 1.5 - Express a main idea as a thesis, hypothesis, or other appropriate statement.
- Outcome 1.6 - Develop a main idea clearly and concisely with appropriate content.
- Outcome 1.7 - Demonstrate a mastery of the conventions of writing, including grammar, spelling, and mechanics.
- Outcome 1.8 - Demonstrate proficiency in revision and editing.
- Outcome 1.9 - Develop a personal voice in written communication.

### Standard 2 - Quantitative Reasoning

- Outcome 2.1 - Apply numeric, graphic, and symbolic skills and other forms of quantitative reasoning accurately and appropriately.
- Outcome 2.2 - Demonstrate mastery of mathematical concepts, skills, and applications, using technology when appropriate.
- Outcome 2.3 - Communicate clearly and concisely the methods and results of quantitative problem solving.
- Outcome 2.4 - Formulate and test hypotheses using numerical experimentation.
- Outcome 2.5 - Define quantitative issues and problems, gather relevant information, analyze that information, and present results.
- Outcome 2.6 - Assess the validity of statistical conclusions.

### Standard 3 - Information Retrieval and Technology

- Outcome 3.1 - Use print and electronic information technology ethically and responsibly.
- Outcome 3.2 - Demonstrate knowledge of basic vocabulary, concepts, and operations of information retrieval and technology.
- Outcome 3.3 - Recognize, identify, and define an information need.
- Outcome 3.4 - Access and retrieve information through print and electronic media, evaluating the accuracy and authenticity of that information.
- Outcome 3.5 - Create, manage, organize, and communicate information through electronic media.
- Outcome 3.6 - Recognize changing technologies and make informed choices about their appropriateness and use.

### Standard 4 - Oral Communication

- Outcome 4.1 - Identify and analyze the audience and purpose of any intended communication.
- Outcome 4.2 - Gather, evaluate, select, and organize information for the communication.
- Outcome 4.3 - Use language, techniques, and strategies appropriate to the audience and occasion.
- Outcome 4.4 - Speak clearly and confidently, using the voice, volume, tone, and articulation appropriate to the audience and occasion.
- Outcome 4.5 - Summarize, analyze, and evaluate oral communications and ask coherent questions as needed.
- Outcome 4.6 - Use competent oral expression to initiate and sustain discussions.

### Standard 5 - Critical Thinking

- Outcome 5.1 - Identify and state problems, issues, arguments, and questions contained in a body of information.
- Outcome 5.2 - Identify and analyze assumptions and underlying points of view relating to an issue or problem.
- Outcome 5.3 - Formulate research questions that require descriptive and explanatory analyses.
- Outcome 5.4 - Recognize and understand multiple modes of inquiry, including investigative methods based on observation and analysis.
- Outcome 5.5 - Evaluate a problem, distinguishing between relevant and irrelevant facts, opinions, assumptions, issues, values, and biases through the use of appropriate evidence.
- Outcome 5.6 - Apply problem-solving techniques and skills, including the rules of logic and logical sequence.
- Outcome 5.7 - Synthesize information from various sources, drawing appropriate conclusions.
- Outcome 5.8 - Communicate clearly and concisely the methods and results of logical reasoning.
- Outcome 5.9 - Reflect upon and evaluate their thought processes, value system, and world views in comparison to those of others.