

# MONTANA BOARD OF REGENTS

## NEW ACADEMIC PROGRAM PROPOSAL SUMMARY

<b>Item No.: 134-2857-R0307</b>	<b>Institution: Montana State University-Great Falls COT</b>
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1. How does this program advance the campus' academic mission and fit priorities?

Preparing individuals to work in high-skilled environments is one prong of the College's two-pronged mission. Responding to the demand for skilled trades workers has been identified as a strategic goal for the College, with the need identified as a result of environmental scanning projects both in the Great Falls and the Gallatin Valley. Currently the Certificate in Auto Body Repair & Refinishing (ABR&R) is the only trades-related workforce program the College offers in Great Falls, and therefore is vital to ensuring a broad selection of programs responding to the interests and aptitudes of a diverse student body.

2. How does this program fit the Board of Regents' goals and objectives?

The proposed transition of an existing program from a 59-credit Certificate program to a 61-credit Associate of Applied Science Degree reflects the goals and objectives of the Board of Regents in numerous ways. First, it brings the program into compliance with BOR Policy 301.12 by revising the general education course requirements to align with those of similar programs in the state and by adding one course to meet the baseline credit requirements of an Associate of Applied Science Degree. It is this Regental goal for consistency among degree programs, combined with the desire for an appropriately upgraded credential for our ABR&R students, that have prompted this request for change.

Both the current program and the proposed program increase access to and enrollments in two-year programs by both traditional and non-traditional students, another Regental goal. In Great Falls this program is the only trades-related option for students wishing to pursue higher education in the community. In its long history as a Certificate program, the program has educated individuals ranging from high school students enrolled in dual credit opportunities to non-traditional students seeking a career change. The ABR&R program also responds to the goal of workforce development by continuing to offer high-tech trades programming to meet occupational demands in the College's service area.

3. How does this program support or advance Montana's needs and interests?

According to the US Department of Labor's Bureau of Labor Statistics employment of automotive body repairers is expected to grow as fast as average for all occupations through the year 2014 (approximate average change of 12%). Opportunities will be best for persons with formal training in automotive body repair and refinishing. Those without formal training in automotive body refinishing or collision repair will face competition for these jobs. Demand for qualified body repairers will increase as the number of motor vehicles in operation continues to grow in line with the Nation's population. In Montana projected growth is higher than the national expectations with an average growth through 2014 of about 20%. Currently there is an estimated 1160 employed in this industry in the State with projected 42 annual openings due to new jobs created and replacement of existing workers.

Within Great Falls students have very few opportunities to advance in the automobile service industry past secondary education. The interest in this field has peaked with the addition of an automobile service and repair program for high school students in the Great Falls Public Schools. Providing a post secondary option, specifically an Associate of Applied Science Degree, will encourage those students who wish to stay in Great Falls to continue their education past high school. Coupled with the success of the Dual Credit option within the

current Certificate program this pathway will ensure that the College's diverse constituency's needs are met through a broad spectrum of programmatic offerings.

4. How will this program contribute to economic development in Montana? (Note projected annual economic impact both regionally and statewide.)

The economic impact of program graduates thus far, considering wages only and using the average annual salary data provided by the Montana Department of Labor & Industry has been over \$1.5 Million. This does not take into account the increased productivity of companies in the automotive industry in Great Falls, where the majority of the graduates have been employed. Continuation of this program as an Associate of Applied Science Degree should increase enrollment and improve retention, thereby ensuring a continued, if not increased, trend of economic impact along these lines. Providing workforce opportunities to Great Falls and Montana residents where they earn a salary in this range contributes directly to the economic development of the state and region.

5. What is the program's planned capacity?

• Break-even point?	21	FTE students
• Enrollments / year?	22	
• Graduates / year?	8	
• MT jobs / year?	8	

6. Resource Allocation:

• Total program budget?	\$ 93,600
• Faculty FTE?	1.0
• Staff FTE?	0.5

7. Does this program require new resources?  Yes  No  
If yes, what is the amount? \$ \_\_\_\_\_

8. How will the campus fund the program?

The program will be funded through tuition, state allotment, and student program fees.

9. If internal reallocation is necessary, name the sources.

None required.

**Associate of Applied Science in Auto Body Repair and Refinishing****PROGRAM DESCRIPTION****1. Briefly describe the proposed new program. Please indicate if it is (a) an expansion of an existing program or a new program; (b) a cooperative effort with another institution, business, or industry; or (c) an on-campus or off-campus program. Attach any formal agreements established for cooperative efforts.**

MSU-Great Falls College of Technology currently has a Certificate program in Auto Body Repair and Refinishing. This proposal seeks to transition that program to an Associate of Applied Science degree for two (2) primary reasons:

- (1) to bring the current program into compliance with Board of Regents Policy 301.12 which stipulates the credit range for Certificate and Associate Degree programs; and
- (2) to align the proper academic credential, in this case the Associate of Applied Science Degree, with the amount and level of coursework involved in the program. Like the Certificate program, the AAS in Auto Body Repair and Refinishing will be delivered on campus in Great Falls.

Please see the attached comparison of the current Certificate program and the proposed Associate of Applied Science Degree program curricula.

**2. Summarize the needs assessment conducted to justify the proposal.**

The Certificate program in Auto Body Repair and Refinishing has been active at the College since its "vo-tech" days with the local school district and has had recurrent community and industry support. Through an active advisory committee, industry has continued to provide connection between the program and occupations in the field and assures the College that the demand for these employees continues. According to the US Department of Labor, automotive technology is rapidly increasing in sophistication, and most training authorities strongly recommend that persons seeking automotive body repair and related jobs complete a formal training program in automotive body repair or refinishing. The proposed Associate of Applied Science Degree in Auto Body Repair and Refinishing will provide this avenue for those interested in this career field.

Data shows employment of automotive body repairers is expected to grow as fast as average for all occupations through the year 2014 (approximate average change of 12%). Opportunities will be best for persons with formal training in automotive body repair and refinishing. Those without formal training in automotive body refinishing or collision repair will face competition for these jobs. Demand for qualified body repairers will increase as the number of motor vehicles in operation continues to grow in line with the Nation's population. In Montana projected growth is higher than the national expectations with an average growth through 2014 of about 20%. Currently there is an estimated 1160 employed in this industry in the State with projected 42 annual openings due to new jobs created and replacement of existing workers.

**3. Explain how the program relates to Role and Scope of the institution as established by the Board of Regents.**

Within the Montana University System, Colleges of Technology are charged by the Board of Regents to provide access to higher education programs that prepare students to obtain and succeed in technical, high-skill, and high-demand occupations. This is typically done through one and two-year programs (Certificate/Associate of Applied Science) specifically aligned with a recognized occupation in the workforce. As with any institution within the Montana University

System, it is also expected that each campus strive to provide higher educational opportunities that will cover the diverse interests of the student body. The Auto Body Repair and Refinishing program relates to both of these considerations. First, programs across the nation are typically offered in high school or in postsecondary vocational schools and community colleges, and secondly, this program is the only trades related option for students with these interests and/or aptitude in Great Falls.

Within Great Falls students have very few opportunities to advance in the automobile service industry past secondary education. The interest in this field has peaked with the addition of an automobile service and repair program for high school students in the Great Falls Public Schools. Providing a postsecondary option, specifically an Associate of Applied Science Degree, will encourage those students who wish to stay in Great Falls to continue their education past high school. Coupled with the success of the dual credit option within the current Certificate program, this pathway will ensure that the College's diverse constituency's needs are met through a broad spectrum of programmatic offerings.

**4. State (a) what effect, if any, the proposed program will have on the administrative structure of the institution. Also indicate (b) the potential involvement of other departments, divisions, colleges, or schools.**

The proposed transition of the Certificate in Auto Body Repair and Refinishing to an Associate of Applied Science will have no impact on the administrative structure of the College. The current Certificate program is just one (1) credit shy of the minimum credit requirements for an Associate of Applied Science Degree, which will be added through better integration of general education coursework and the addition of the introductory computer course common to AAS degrees. All technical coursework will remain the same. The College currently offers all courses within the proposed program and therefore the transition will have little or no impact on any other departments or divisions within the institution. Most importantly, the upgraded credential comes at no additional cost to students.

**5. Describe the extent to which similar programs are offered in Montana, the Pacific Northwest, and states bordering Montana. How similar are these programs to the one proposed?**

In Montana, two other institutions of higher education offer similar Associate of Applied Science Degrees in automotive repair and refinishing. They are MSU-Billings College of Technology and MSU-Northern. Those programs, as well as both the current and proposed program at MSU-Great Falls are similar, specifically so in the technical areas covered within the auto body repair and refinishing coursework. The differences are primarily in how the content is covered within the courses, and thus the titles for specific classes. Because the local industry that this program serves has guided and continually validated the current technical course work of the College's current Certificate program, the College made only the minimal changes in its curriculum necessary to upgrade the credential to an AAS degree and align with Regent policy. This will also allow current students to transition seamlessly into the AAS degree program.

**6. Please name any accrediting agency (ies) or learned society (ies) that would be concerned with particular program herein proposed. How has this program been developed in accordance with criteria developed by said accrediting body (ies) or learned society (ies)?**

As part of the College's academic menu, the Auto Body Repair and Refinishing program has been included in the accreditation reviews of Northwest Commission on Colleges and Universities in 1994 and 2005. The College has sought no additional accreditation for the program; however, the curriculum was developed and has been revised to align with the guidelines for automotive

service and repair training provided by the National Automotive Technician Education Foundation (NATEF) and the Inter-Industry Conference on Auto Collision Repair (I-CAR).

**7. Prepare an outline of the proposed curriculum showing course titles and credits. Please include any plans for expansion of the program during its first three years.**

The curriculum provided below presents the course work in the program in the same four-semester delivery used for the current Certificate program. The College is beginning to explore the retention benefits of continuous enrollment that could be achieved through a summer intercession.

**Fall Semester**

<u>Course No.</u>	<u>Title</u>	<u>Credits</u>	
MATH 106	Math for Trades Programs		3
TB 112	Auto & Paint Shop Safety		1
TB 130	Basic Auto Construction	2	
TB 134	Correcting Sheet Metal	3	
TB 141	Surface Prep and Undercoats	3	
TB 142	Top Coat Applications	3	
		<b>Subtotal 15</b>	

**Spring Semester**

<u>Course No.</u>	<u>Title</u>	<u>Credits</u>	
CIT 110	Introduction to Computers		3
TB 136*	Correcting Collision Damage	5	
TB 150*	Paint Removal	3	
TB 153*	Overall Refinishing	3	
TB 154*	Paint Problems	1	
		<b>Subtotal 15</b>	

**Fall Semester**

<u>Course No.</u>	<u>Title</u>	<u>Credits</u>	
COMM 135	Interpersonal Communication	3	
TB 220*	Fiberglass & Plastic Repair		3
TB 243*	Panel Replacement	3	
TB 248*	Spot Repair and Blending		3
TB 249*	Paint Formulation and Tinting	3	
		<b>Subtotal 15</b>	

**Spring Semester**

<u>Course No.</u>	<u>Title</u>	<u>Credits</u>	
ENGL 119 or higher	Intro to College Writing	3	
TB 245*	Production Body Repair	3	
TB 246*	Total Body Rebuilding & Sectioning		3
TB 250*	Production Refinishing	3	
TB 254*	Specialty Finishes		1
TB 255*	Estimating Collision Damage	3	
		<b>Subtotal 16</b>	

**TOTAL PROGRAM CREDITS -  
61**

**FACULTY AND STAFF REQUIREMENTS**

- 1. **Please indicate, by name and rank, current faculty who will be involved with the program proposed herein.**

Steve Thurston, Program Director and Tenured Faculty Member  
 Gene Stewart, Shop Aide

- 2. **Please project the need and cost for new faculty over the first five years of the program. Include special qualifications or training. If present faculty is to conduct the new program, please explain how they will be relieved from present duties.**

One full-time faculty member and one half-time shop aide are required for the proposed program. All faculty members in the program must meet the Regents' requirements for qualifications of faculty in two-year programs. If enrollments grow with the transition of this program to an AAS, potentially the shop aide position may be eliminated and replaced with a part time or adjunct faculty member. Increases in tuition revenue will accommodate for this addition.

Auto Body Repair and Refinishing program faculty are currently in place and instructing in the Certificate program, and general education faculty also currently in place will include the proposed program's students in related instruction courses offered to a broader population of students at the College. The projected impact of additional program students in these courses is minimal, given the small number of students and the number of sections of general education courses available. Therefore it is anticipated that little or no new costs for faculty and staff will be required by this proposal.

Total personnel costs FY08 = \$68,600

- 1.0 FTE faculty: Salary of 39,280 + benefits of 15,320 total cost = \$54,600
- 0.5 FTE shop aide: Salary of 10,220+ benefits of 3,780 total cost = \$14,000

- 3. **Please explain the need and cost for support personnel or other required personnel expenditures.**

Support will be provided by existing clerical staff within the Business and Technology Department of the College.

Clerical Staff support - No additional cost

**CAPITAL OUTLAY, OPERATING EXPENSES AND PHYSICAL FACILITIES**

- 1. **Please summarize operating expenditure needs.**

a. Contracted Services –	75	
b. Supplies & Materials –	23,282	
c. Communications –	263	
d. Travel & Professional Development –	200	
e. Repairs and Maintenance –		480
f. Other Expenses -	700	

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**Total Operating Expenses FY08 - \$25,000**

- 2. **Please evaluate library resources. Are they adequate for operation of the proposed program? If not, how will the library need to be strengthened during the next three years?**

The College's library resources for the current program are adequate for the proposed program.

- 3. Please indicate special clinical, laboratory, and/or computer equipment that will be needed. List those pieces of equipment or computer hardware presently available in the department.**

No additional special laboratory or computer equipment will be necessary for the proposed program.

- 4. Please describe facilities and space required for the proposed program. Are current facilities adequate for the program? If not, how does the institution propose to provide new facilities?**

Facilities for the current program will be more than adequate to serve the proposed program.

## Current Certificate and Proposed AAS Degree Curricula

Current Certificate*	Proposed AAS
<b>First Year</b>	<b>First Year</b>
<b>Fall Semester</b>	<b>Fall Semester</b>
MATH --- ** MATH 085 or higher 4	MATH 106 Math for Trades Programs 3
TB 112 Auto & Paint Shop Safety 1	CIT 110 Introduction to Computers 3
TB 130 Basic Auto Construction 2	TB 112 Auto & Paint Shop Safety 1
TB 134 Correcting Sheet Metal 3	TB 130 Basic Auto Construction 2
TB 141 Surface Preparation & Undercoats 3	TB 134 Correcting Sheet Metal 3
TB 142 Top Coat Application 3	TB 141 Surface Prep and Undercoats 3
<b>Subtotal 16</b>	TB 142 Top Coat Applications 3
<b>Spring Semester</b>	<b>Subtotal 15</b>
COMM 135 Interpersonal Communication 3	<b>Spring Semester</b>
TB 136* Correcting Collision Damage 5	CIT 110 Introduction to Computers 3
TB 150* Paint Removal 3	TB 136* Correcting Collision Damage 5
TB 153* Overall Refinishing 3	TB 150* Paint Removal 3
TB 154* Paint Problems 1	TB 153* Overall Refinishing 3
<b>Subtotal 15</b>	TB 154* Paint Problems 1
<b>Second Year</b>	<b>Subtotal 15</b>
<b>Fall Semester</b>	<b>Second Year</b>
ENGL --- ** ENGL 120 or higher 3	<b>Fall Semester</b>
TB 220* Fiberglass & Plastic Repair 3	COMM 135 Interpersonal Communication 3
TB 243* Panel Replacement 3	TB 220* Fiberglass & Plastic Repair 3
TB 248* Spot Repair and Blending 3	TB 243* Panel Replacement 3
TB 249* Paint Formulation and Tinting 3	TB 248* Spot Repair and Blending 3
<b>Subtotal 15</b>	TB 249* Paint Formulation and Tinting 3
<b>Spring Semester</b>	<b>Subtotal 15</b>
TB 245* Production Body Repair 3	<b>Spring Semester</b>
TB 246* Total Body Rebuild & Section 3	ENGL 119 Intro to College Writing 3
TB 250* Production Refinishing 3	TB 245* Production Body Repair 3
TB 254* Specialty Finishes 1	TB 246* Total Body Rebuild & Section 3
TB 255* Estimating Collision Damage 3	TB 250* Production Refinishing 3
<b>Subtotal 13</b>	TB 254* Specialty Finishes 1
<b>TOTAL PROGRAM CREDITS - 59</b>	TB 255* Estimating Collision Damage 3
	<b>Subtotal 16</b>
	<b>TOTAL PROGRAM CREDITS - 61</b>



**Curriculum Comparison of Surgical Technology Programs in Montana**

MSU-Great Falls	MSU-Billings COT	MSU-Northern
<b>First Year</b>	<b>First Year</b>	
<b>Fall Semester</b>	<b>Fall Semester</b>	<b>General Education</b>
MATH 106 Math for Trades Programs 3	ABDY 111 Intro to Auto Body Repair 5	ENGL 111 Written Communication I OR
CIT 110 Introduction to Computers 3	ABDY 112 Minor Collision Repair 6	SPCH 141 Fundamentals of Speech OR
TB 112 Auto & Paint Shop Safety 1	TRID 150 Envir and Shop Practices 2	SPCH 142 Interpersonal Comm 3
TB 130 Basic Auto Construction 2	TRID 140 Auto Sheet Metal and Structural	MAAS 106 Elementary Technical Math OR
TB 134 Correcting Sheet Metal 3	MIG Welding 2	MATH 110 Math for Liberal Arts OR MATH
TB 141 Surface Prep and Undercoats 3	MATH 122 College Math for Tech 3	112 College Algebra 3-4
TB 142 Top Coat Applications 3	<b>Subtotal 18</b>	CIS 110 Intro to Computers 3
<b>Subtotal 15</b>	<b>Spring Semester</b>	<b>Subtotal 9-10</b>
<b>Spring Semester</b>	ABDY 131 Intro to Refinish Principles 6	<b>Required Courses</b>
CIT 110 Introduction to Computers 3	ABDY 132 Intro to Auto Undercoats & Plastics 6	ATDI 134 Auto/Diesel Electrical/Electronic Systems I 4
TB 136* Correcting Collision Damage 5	TRID 152 Vehicle Heating, Ventilation & Air Conditioning 3	ATDI 265 Heating & Air Conditioning 4
TB 150* Paint Removal 3	CMP 105 Intro to Computers 3	AUTO 220 Automotive Steering and Suspension 4
TB 153* Overall Refinishing 3	<b>Subtotal 18</b>	BODY 140 Panel Adjustment & Glass 2
TB 154* Paint Problems 1		BODY 141 Intro to Metal Refinishing 3
<b>Subtotal 15</b>	<b>Second Year</b>	BODY 142 Metal Repair Lab 3
<b>Second Year</b>	<b>Fall Semester</b>	BODY 143 Refinishing 3
<b>Fall Semester</b>	ABDY 141 Advanced Automotive Refinishing 6	BODY 144 Refinishing Lab 3
COMM 135 Interpersonal Comm 3	ABDY 142 Introduction to Automotive Paint Blending and Color Matching 7	BODY 215 Principles of Unibody Repair Fundamentals 3
TB 220* Fiberglass & Plastic Repair 3	COMT 109 Human Relations 3	BODY 216 Unibody Repair Tech 3
TB 243* Panel Replacement 3	<b>Subtotal 16</b>	BODY 241 Estimating 4
TB 248* Spot Repair and Blending 3	<b>Spring Semester</b>	BODY 243 Shop Production 3
TB 249* Paint Formulation & Tinting 3	ABDY 121 Automobile Body Structural Repair 6	BODY 244 Shop Production Lab 3
<b>Subtotal 15</b>	ABDY 122 Auto Collision Mechanics 5	METL 140 Introduction to Welding and Cutting 3
<b>Spring Semester</b>	TRID 180 Electrical Systems 4	METL 154 Gas Arc Welding Processing Advisor Approved Electives 3
ENGL 119 Intro to College Writing 3	ENGL 140 Business Writing 3	
TB 245* Production Body Repair 3	<b>Subtotal 18</b>	
TB 246* Tot. Body Rebuild & Section 3		
TB 250* Production Refinishing 3		
TB 254* Specialty Finishes 1		
TB 255* Estimating Collision Damage 3		
<b>Subtotal 16</b>		
<b>Total Program Credits - 61</b>	<b>Total Program Credits - 70</b>	<b>Total Program Credits - 60-61</b>

**BUDGET ANALYSIS**

<b>Proposed Program:</b>										
<b>Program Name: Auto Body Repair and Refinishing</b>										
<b>Campus: Montana State University - Great Falls College of Technology</b>										
	<b>Year 1</b>		<b>Year 2</b>		<b>Year 3</b>		<b>Year 4</b>		<b>Year 5</b>	
	<b>FY 08</b>		<b>FY 09</b>		<b>FY 10</b>		<b>FY 11</b>		<b>FY 12</b>	
<b>Estimated ENROLLMENT</b>										
FTE Enrollment	22		22		22		22		22	
<b>Estimated Incremental REVENUE</b>										
Use of Current General Operating Funds										
State Funding for Enrollment Growth	41,536		41,536		41,536		41,536		41,536	
<b>Tuition Revenue</b>										
A. Gross Incremental Tuition Revenue	55,000		55,000		55,000		55,000		55,000	
B. Reductions to Incremental Tuition										
C. Net Tuition Revenue (A-B)	55,000		55,000		55,000		55,000		55,000	
Program/Course Fees (\$110/student)	2,420		2,420		2,420		2,420		2,420	
External Funds										
Other Funds (please specify)										
<b>TOTAL Estimated Incremental Revenue</b>	98,956		98,956		98,956		98,956		98,956	
<b>Estimated Incremental EXPENDITURES</b>										
Personal Services	<b>FTE</b>	<b>Cost</b>	<b>FTE</b>	<b>Cost</b>	<b>FTE</b>	<b>Cost</b>	<b>FTE</b>	<b>Cost</b>	<b>FTE</b>	<b>Cost</b>
Faculty	1	54,600	1	56,238	1	57,925	1	57,925	1	57,925
Staff (Shop Aide)	0.5	14,000	0.5	14,420	0.5	14,853	0.5	14,853	0.5	14,853
Operating Expenses	25,000		25,750		26,523		27,318		28,138	
Equipment										
Start-up Expenditures										
<b>TOTAL Estimated Incremental Expenditures</b>	93,600		96,408		99,300		100,096		100,915	
<b>Estimated Revenues Over/(Under) Expenditures</b>	5,356		2,548		(344)		(1,140)		(1,959)	