Montana University System

PROGRAM REVIEW

Institution: **Helena College University of Montana**

Program Years: **2013-2018**

List of the programs reviewed:

- A.A.S in Automotive Technology
- C.A.S./A.A.S in Aviation Maintenance Technology
- C.A.S/A.A.S in Diesel Technology

Decision(s) concerning the future of the program(s), based on the program review criteria established at the campus:

- The Program Review Committee of Helena College University of Montana recommends the continuation of the Automotive Technology Program
- The Program Review Committee of Helena College University of Montana recommends the continuation of the Aviation Maintenance Technology Program
- The Program Review Committee of Helena College University of Montana recommends the continuation of the Diesel Technology Program.

Rationale or justification for the decision based on the program review process established at the campus. Include graduation numbers and student majors for each of the last seven (7) years for every program under review.

Please see attached detailed summaries from each program review.

Montana University System

PROGRAM REVIEW

Institution: **Helena College University of Montana**

Program Years: **2013-2018**

List of the programs reviewed:

- A.A.S. Automotive Technology

Decision(s) concerning the future of the program(s), based on the program review criteria established at the campus:

- The Program Review Committee of Helena College University of Montana recommends the continuation of the Automotive Technology Program based on a review of program data and faculty recommendation.

Rationale or justification for the decision based on the program review process established at the campus. Include graduation numbers and student majors for each of the last seven (7) years for every program under review.

Program data gathered during the internal review process indicates that over the past 5 years enrollment in the Automotive Technology program has averaged 63% of program capacity though there has been significant decline in recent years. Student success as measured by retention, successful course completion, graduation rates and annual degree completion has varied. Retention has improved in recent years, while graduation rates have fluctuated above and below institutional averages. State and national labor market data demonstrates demand for program graduates, while placement of graduates has been strong over the past 5 years averaging 94%. Fiscal data indicates the program is generally sustainable at current levels of personnel and operational funding, though a significant increase in operational expenditures in FY17 was greater than program revenue due to declining enrollment. To address enrollment, student success and fiscal challenges the program was placed on moratorium during the 2018-2019 academic year. During this time, a major curriculum revision was completed; and the addition of industry partnerships was completed. Currently the enrollment is on an every other year basis; however, it is the goal of the program to take in students every year and to have two full-time instructors.

The Automotive Technology Program aligns with Helena College's mission through the provision of access to educational opportunities in the college's service area. Program provides an educational environment for students to acquire entry-level skills for success in the automotive repair field and other related industries. Program curriculum consists of eight areas of study as defined by the National Institute for Automotive Service Excellence (ASE), along with the college's general education requirements offered during a two-year period including placement into work-based learning experiences for on the job training through partnerships with local independent business owners, auto dealerships and the Montana Auto Dealers Association.

Program Goals for 2019-2023

The Automotive Technology program has recently undergone a thorough overview in order to align curriculum with industry standards and ASE requirements. As a result, students will complete curriculum that will prepare them for sitting for the ASE exams after each block of instruction. Throughout the two year time period students will take eight ASE exams, which will then fast track their work progression to achieve Master Technician status in the workforce. This technical skills attainment will be valuable to industry. The program has also partnered with local industry to place each student in a work-based learning experience starting in their first semester. Students will be placed as interns/apprentices in local businesses to gain up to 1000 hours of work-based learning while they are attending college. This experience should in turn increase retention and completion in the program. Hybrid technology has also been added into the curriculum.

Automotive Technology 2013-2018

Program Review Data Summary								
Student Participation and Success								
Data Definition:	AY1314	AY1415	AY1516	AY1617	AY1718	5 Year Ave	Program Notes	Source
A. Transfer rates to 4-year colleges (AA/AS)	N/A	N/A	N/A	N/A	N/A	**N/A**		Institutional Research
B. Program Capacity (Headcount)	40	40	40	40	40	**40**		Institutional Research
C. Annual Headcount Enrollment (Unduplicated)	26	32	30	19	18	**25**		Institutional Research
D. Annual FTE Enrollment **PI**	21	28	24	13	15	**20**		Institutional Research
E. Annual Program Capacity	65%	80%	75%	48%	45%	**63%**		Institutional Research
F. Fall to Fall Retention Rates (Full-time students) **PI**	40%	27%	36%	100%	63%	**53%**	Fall 2013-2017 Cohorts	Institutional Research
G. Fall to Fall Retention Rates (Part-time students) **PI**	N/A	0%	N/A	N/A	N/A	**0%**	Fall 2013-2017 Cohorts	Institutional Research
H. Program Course Completion Rate (C- or better)	75%	80%	70%	87%	84%	**79%**	Fall+Spring Semester/2	Institutional Research
I. 150% Time Graduation Rate (Full-time students)	0%	22%	30%	13%	36%	**20%**	Fall 2011-2015 Cohorts	Institutional Research
J. 150% Time Graduation Rate (Part-time students)	N/A	0%	N/A	0	N/A	**0%**	Fall 2011-2015 Cohorts	Institutional Research
K. Annual Degree & Certificate Completions	5	7	5	4	4	**5**		Institutional Research
L. Degree Production Rates – *proportion of degrees/certificates granted per 100 FTE* **PI**	24	25	21	31	28	**26**		Institutional Research
M. Pass Rates on Occupation/industry Specific Licensing or Certification Exams (as applicable) **PI**								

Automotive Technology 2013-2018

Program Review Data Summary								
Alignment with Community Needs (CTE Only)								
Data Definition:	Current MT	Projected MT	Current U.S.	Projected U.S.			Program Notes	Source
A. Provide the total number of projected job openings from related occupations for Montana and the U.S.	3,681	3,878	749,000	795,800			Projected annual openings MT: 369 Projected annual openings US: 75,600	Montana Research & Analysis Bureau/Bureau of Labor Statistics (2017-2027 Projections). US DOL (2016-2026 Projections) http://lmi.mt.gov/Projections
B. Provide percent change in job openings for related occupations for Montana and the U.S.		+5%		+6%				Montana Research & Analysis Bureau/Bureau of Labor Statistics (2017-2027 Projections). US DOL (2016-2016 Projections)
C. Provide the median hourly wage or annual salary for related occupations	$37,870		$39,550				Starting Salary Range (2013-2017): $26,364 - $29,885	Montana Research & Analysis Bureau/Bureau of Labor Statistics (2017-2027 Projections). US DOL (2016-2016 Projections)
Data Definition:	AY1213	AY1314	AY1415	AY1516	AY1617	5 Year Ave	Program Notes	Source
D. Provide 5 years of job placement rates for all program graduates **PI**	100%	100%	71%	100%	100%	94%	% of graduates employed at least 1 quarter following graduation	OCHE & Bureau of Labor Statistics https://www.mus.edu/data/WorkforceTool/default.asp
E. For applied programs with program admission provide five years of student application totals	N/A	N/A	N/A	N/A	N/A	N/A		https://www.careeronestop.org/toolkit/careers/occupations/Occupation-profile.aspx?keyword=Automotive Master Mechanics&onetcode=49302301&location=UNITED STATES
F. For applied programs with program admission provide five years of students accepted totals	N/A	N/A	N/A	N/A	N/A	N/A		

Automotive Technology 2013-2018

Program Review Data Summary								
Fiscal and Physical Resources								
Data Definition: Instructional costs include program personnel and operating expenses	FY14	FY15	FY16	FY17	FY18	5 Year Ave	Program Notes	Source
A. Program Expenditure/FTE **PI**	$7,284	$6,325	$7,546	$20,633	$12,087	$10,775		Institutional Research/Finance
B. Average HC Program Expenditure/FTE	$5,032	$4,881	$5,354	$6,512	$8,252	$6,006		Institutional Research/Finance
C. Program Expenditure/Completion	$30,592	$25,301	$36,221	$67,057	$43,816	$40,597		Institutional Research/Finance
D. Average HC Program Expenditure/Completion	$13,353	$18,071	$12,712	$16,356	$15,599	$14,101		Institutional Research/Finance
E. Student Program Fees-Fund Balance	$3,041	$3,215	$3,048	$2,501	$3,206	$3,002	H60280	Institutional Research/Finance
F. Student Program Fees-Fund Expenditures	$7,910	$0	$183	$0	$7,176	$3,054	H60280	Institutional Research/Finance
G. Total Program Expense	$152,961	$177,104	$181,106	$268,228	$175,263	$190,932	Personnel+Operating	Institutional Research/Finance
H. Total Program Revenue	$165,526	$157,823	$220,800	$119,977	$120,640	$156,953	State Approp+Tuition	Institutional Research/Finance
I. Program Revenue/FTE	$7,882	$8,308	$9,200	$9,229	$9,280	$8,554	Total Revenue/FTE	Institutional Research/Finance

Montana University System

PROGRAM REVIEW

Institution: **Helena College University of Montana**

Program Years: **2013-2018**

List of the programs reviewed:

- C.A.S. Airframe
- C.A.S. Powerplant
- A.A.S. Aviation Maintenance Technology

Decision(s) concerning the future of the program(s), based on the program review criteria established at the campus:

- The Program Review Committee of Helena College University of Montana recommends the continuation of the Aviation Maintenance Technology Program based on a review of program data and faculty recommendation.

Rationale or justification for the decision based on the program review process established at the campus. Include graduation numbers and student majors for each of the last seven (7) years for every program under review.

Program data gathered during the internal review process indicates that over the past 5 years the Aviation Maintenance Technology program has maintained stable rates of enrollment, averaging 65% of program capacity, and student success as measured by retention, successful course completion, graduation rates and annual degree completion, which are all at or above institutional averages. State and national labor market data demonstrates demand and high wages for program graduates, while placement of graduates has been strong over the past 5 years averaging 74%. Fiscal data indicates the program continues to be sustainable at current levels of personnel and operational funding. Currently the program is adequately supported; however, replacement equipment is extremely expensive.

The Aviation Maintenance Technology Program aligns with Helena College's mission through the provision of access to educational opportunities in the college's service area. The program prepares entry-level technicians who are trained in the fundamentals of aircraft maintenance with respect to general aviation and the light utility helicopter industry. With this training, a technician will be prepared for employment in many different occupations in the aviation industry including: Fixed Base Operations, Repair Stations, Commuter Airlines, Air Cargo, Aircraft Restoration, Flight Schools and Aerial Fire Fighting, to name a few. This is the only program in Montana in Aviation Maintenance Technology. It is a very rigorous program of study that is FAA-approved. Students who complete the program are hired by aviation maintenance facilities in Montana and, due to the mechanical requirements of this program, students transfer from the 2-year to 4-year programs, particularly into engineering.

Program Goals for 2019-2023

1. Increase AAS Completion rate by integrating general education courses.
2. Establish industry partnerships that will support Helena College students in apprenticeship/internship experiences.
3. Update equipment as able to maintain relevancy and quality.

Aviation Maintenance Technology 2013-2018

Program Review Data Summary

Student Participation and Success

Data Definition:	AY1314	AY1415	AY1516	AY1617	AY1718	5 Year Ave	Program Notes	Source
A. Transfer rates to 4-year colleges (AA/AS)	N/A	N/A	N/A	N/A	N/A	**N/A**		Institutional Research
B. Program Capacity (Headcount)	40	40	40	40	40	**40**		Institutional Research
C. Annual Headcount Enrollment (Unduplicated)	23	26	27	27	26	**26**		Institutional Research
D. Annual FTE Enrollment **PI**	27	31	28	29	31	**29**		Institutional Research
E. Annual Program Capacity	58%	65%	68%	68%	65%	**65%**		Institutional Research
F. Fall to Fall Retention Rates (Full-time students) **PI**	80%	93%	67%	92%	78%	**85%**	Fall 2013-2017 Cohorts	Institutional Research
G. Fall to Fall Retention Rates (Part-time students) **PI**	N/A	N/A	N/A	0%	0%	**0%**	Fall 2013-2017 Cohorts	Institutional Research
H. Program Course Completion Rate (C- or better)	96%	98%	90%	97%	96%	**95%**	Fall+Spring Semester/2	Institutional Research
I. 150% Time Graduation Rate (Full-time students)	33%	53%	40%	85%	50%	**52%**	Fall 2011-2015 Cohorts	Institutional Research
J. 150% Time Graduation Rate (Part-time students)	N/A	N/A	N/A	N/A	N/A	**N/A**	Fall 2011-2015 Cohorts	Institutional Research
K. Annual Degree & Certificate Completions	9	5	15	7	12	**10**		Institutional Research
L. Degree Production Rates – *proportion of degrees/certificates granted per 100 FTE* **PI**	33	16	54	24	39	**33**		Institutional Research
M. Pass Rates on Occupation/industry Specific Licensing or Certification Exams (as applicable) **PI**	AMA=100% AMP=100% AMG=100%	AMA=100% AMP=100% AMG=100%	AMA=N/A AMP=83% AMG=100%	AMA=100% AMP=86% AMG=100%	AMA=80% AMP=80% AMG=100%	**AMA=95%** **AMP=90%** **AMG=100%**	2014-2018	FAA Airmen Knowledge Test Statistics

Aviation Maintenance Technology 2013-2018

Program Review Data Summary

Alignment with Community Needs (CTE Only)

Data Definition:	Current MT	Projected MT	Current U.S.	Projected U.S.			Program Notes	Source
A. Provide the total number of projected job openings from related occupations for Montana and the U.S.	515	575	132,000	138,500			Projected annual openings MT: 47 Projected annual openings US: 10,900	Montana Research & Analysis Bureau/Bureau of Labor Statistics (2017-2027 Projections). US DOL (2016-2026 Projections)
B. Provide percent change in job openings for related occupations for Montana and the U.S.		+12%		+5%				Montana Research & Analysis Bureau/Bureau of Labor Statistics (2017-2027 Projections). US DOL (2016-2026 Projections)
C. Provide the median hourly wage or annual salary for related occupations	$54,290		$61,020				Average Starting Salary (AY1617): $33,764	Montana Research & Analysis Bureau/Bureau of Labor Statistics (2017-2027 Projections). US DOL (2016-2026 Projections)
Data Definition:	AY1213	AY1314	AY1415	AY1516	AY1617	5 Year Ave	Program Notes	Source
D. Provide 5 years of job placement rates for all program graduates **PI**	82%	56%	80%	80%	71%	74%	% of graduates employed at least 1 quarter following graduation	OCHE & Bureau of Labor Statistics https://www.mus.edu/data/WorkforceTool/default.asp
E. For applied programs with program admission provide five years of student application totals	N/A	N/A	N/A	N/A	N/A	N/A		Program Records
F. For applied programs with program admission provide five years of students accepted totals	N/A	N/A	N/A	N/A	N/A	N/A		Program Records

Aviation Maintenance Technology 2013-2018

Program Review Data Summary

Fiscal and Physical Resources

Data Definition: Instructional costs include program personnel and operating expenses	FY14	FY15	FY16	FY17	FY18	5 Year Ave	Program Notes	Source
A. Program Expenditure/FTE **PI**	$3,768	$2,948	$3,185	$3,075	4,601	$3,515		Institutional Research/Finance
B. Average HC Program Expenditure/FTE	$5,032	$4,881	$5,354	$6,512	$8,252	$6,006		Institutional Research/Finance
C. Program Expenditure/Completion	$11,305	$18,280	$5,945	$12,738	$11,885	$12,031		Institutional Research/Finance
D. Average HC Program Expenditure/Completion	$13,353	$18,071	$12,712	$16,356	$15,599	$14,101		Institutional Research/Finance
E. Student Program Fees-Fund Balance	$5,386	$4,608	$4,512	$0	$2,702	$3,442	H60390	Institutional Research/Finance
F. Student Program Fees-Fund Expenditures	$6,788	$75	$0	$0	$5,406	$2,454	H60390	Institutional Research/Finance
G. Total Program Expense	$101,746	$91,398	$89,169	$153,348	$142,625	$115,657	Personnel+Operating	Institutional Research/Finance
H. Total Program Revenue	$208,878	$257,548	$330,671	$267,641	$269,120	$266,772	State Approp+Tuition	Institutional Research/Finance
I. Program Revenue/FTE	$7,882	$8,308	$10,967	$9,229	$9,280	$8,663	Total Revenue/FTE	Institutional Research/Finance

Montana University System

PROGRAM REVIEW

Institution: **Helena College University of Montana**

Program Years: **2013-2018**

List of the programs reviewed:

- C.A.S/A.A.S in Diesel Technology

Decision(s) concerning the future of the program(s), based on the program review criteria established at the campus:

- The Program Review Committee of Helena College University of Montana recommends the continuation of the Diesel Technology Program based on a review of program data and faculty recommendation.

Rationale or justification for the decision based on the program review process established at the campus. Include graduation numbers and student majors for each of the last seven (7) years for every program under review.

Program data gathered during the internal review process indicates that over the past 5 years the Diesel Technology program has maintained robust enrollment averaging 107% program capacity and strong student success as measured by retention, successful course completion, graduation rates and annual degree completion, which are all above institutional averages. State and national labor market data demonstrates demand and high wages for program graduates, while employer partners on the program advisory committee are continually engaged in curriculum development and are highly satisfied with graduates' level of preparation to work in the industry. Fiscal data indicates the program continues to be sustainable at current levels of personnel and operational funding.

The program prepares students to enter various segments of the diesel repair industry as an entry-level technician. This includes, but is not limited to, the agricultural, the industrial equipment, and the heavy-duty diesel truck repair industry. This program provides comprehensive training in maintenance, diagnosis, and repair of related electrical/electronic systems, mobile hydraulic systems, manual and hydraulic drive trains, brakes, air systems, diesel engines, general maintenance, alignment and undercarriages, HVAC, and transport refrigeration systems as used in equipment common to the diesel repair industry. Potential employers include agriculture and truck dealerships, truck fleets, mining companies, construction companies, oil companies, farms and ranches, and independent truck repair shops.

Program Goals for 2019-2023

1. Using industry standards and advisory committee input, Helena College will update curriculum, equipment, and skill development to include development of Commercial Driver's License as part of, or prerequisite to the program.

2. Helena College will continue to integrate student acquisition of industry-recognized credentials into the curriculum.
3. Increase instructor professional development through attendance at national educators' conferences and institutes.
4. Build career awareness by collaborating with industry partners, secondary schools and US Department of Labor Job Service.
5. Explore apprenticeship/internship opportunities for students to increased work-based learning experiences.

Diesel Technology 2013-2018

Program Review Data Summary

Student Participation and Success

Data Definition:	AY1314	AY1415	AY1516	AY1617	AY1718	5 Year Ave	Program Notes	Source
A. Transfer rates to 4-year colleges (AA/AS)	N/A	N/A	N/A	N/A	N/A	**N/A**		Institutional Research
B. Program Capacity (Headcount)	40	40	40	40	40	**40**		Institutional Research
C. Annual Headcount Enrollment (Unduplicated)	50	56	41	34	32	**43**		Institutional Research
D. Annual FTE Enrollment **PI**	50	53	39	33	30	**41**		Institutional Research
E. Annual Program Capacity	125%	140%	103%	85%	80%	**107%**		Institutional Research
F. Fall to Fall Retention Rates (Full-time students) **PI**	67%	70%	92%	64%	82%	**75%**	Fall 2013-2017 Cohorts	Institutional Research
G. Fall to Fall Retention Rates (Part-time students) **PI**	N/A	N/A	0%	N/A	0%	**0%**	Fall 2013-2017 Cohorts	Institutional Research
H. Program Course Completion Rate (C- or better)	100%	93%	90%	91%	97%	**94%**	Fall+Spring Semester/2	Institutional Research
I. 150% Time Graduation Rate (Full-time students)	70%	92%	53%	50%	77%	**68%**	Fall 2011-2015 Cohorts	Institutional Research
J. 150% Time Graduation Rate (Part-time students)	0	67%	N/A	N/A	0	**22%**	Fall 2011-2015 Cohorts	Institutional Research
K. Annual Degree & Certificate Completions	15	15	13	15	9	**13**		Institutional Research
L. Degree Production Rates – *proportion of degrees/certificates granted per 100 FTE* **PI**	30	28	33	46	31	**34**		Institutional Research

Diesel Technology 2013-2018

Program Review Data Summary

Alignment with Community Needs (CTE Only)

Data Definition:	Current MT	Projected MT	Current U.S.	Projected U.S.			Program Notes	Source
A. Provide the total number of projected job openings from related occupations for Montana and the U.S.	1,265	1,367	278,800	304,600			Projected annual openings MT: 126 Projected annual openings US: 28,200	Montana Research & Analysis Bureau/Bureau of Labor Statistics (2017-2017 Projections). US DOL (2016-2016 Projections) http://lmi.mt.gov/Projections
B. Provide percent change in job openings for related occupations for Montana and the U.S.		+8%		9%				Montana Research & Analysis Bureau/Bureau of Labor Statistics (2017-2017 Projections). US DOL (2016-2016 Projections)
C. Provide the median hourly wage or annual salary for related occupations	$48,490		$46,360				Starting Salary Range (2013-2017): $27,047 - $38,592	Montana Research & Analysis Bureau/Bureau of Labor Statistics (2017-2017 Projections). US DOL (2016-2016 Projections)
Data Definition:	AY1213	AY1314	AY1415	AY1516	AY1617	5 Year Ave	Program Notes	Source
D. Provide 5 years of job placement rates for all program graduates **PI**	73%	93%	100%	77%	93%	87%	% of graduates employed for at least 1 quarter following graduation	OCHE & Bureau of Labor Statistics https://www.mus.edu/data/WorkforceTool/default.asp
E. For applied programs with program admission provide five years of student application totals	N/A	N/A	N/A	N/A	N/A	N/A		https://www.careeronestop.org/toolkit/careers/occupations/Occupation-profile.aspx?keyword=Automotive Master Mechanics&onetcode=49302301&location=UNITED STATES

Diesel Technology 2013-2018

Program Review Data Summary

Fiscal and Physical Resources

Data Definition: Instructional costs include program personnel and operatiing expenses	FY14	FY15	FY16	FY17	FY18	5 Year Ave	Program Notes	Source
A. Program Expenditure/FTE **PI**	$3,657	$4,419	$5,067	$6,598	$6,123	$5,173		Institutional Research/Finance
B. Average HC Program Expenditure/FTE	$5,032	$4,881	$5,354	$6,512	$8,252	$6,006		Institutional Research/Finance
C. Program Expenditure/Completion	$12,189	$15,614	$15,202	$14,516	$20,070	$15,518		Institutional Research/Finance
D. Average HC Program Expenditure/Completion	$13,353	$18,071	$12,712	$16,356	$15,599	$14,101		Institutional Research/Finance
E. Student Program Fees-Fund Balance	$3,041	$3,215	$3,048	$2,501	$3,206	$3,002	H60280	Institutional Research/Finance
F. Student Program Fees-Fund Expenditures	$7,910	$0	$183	$0	$7,176	$3,054	H60280	Institutional Research/Finance
G. Total Program Expense	$182,841	$234,208	$197,630	$217,733	$180,634	$202,609	Personnel+Operating	Institutional Research/Finance
H. Total Program Revenue	$394,110	$440,324	$544,025	$299,943	$301,600	$396,000	State Approp+Tuition	Institutional Research/Finance
I. Program Revenue/FTE	$7,882	$8,308	$10,967	$9,229	$9,280	$8,798	Total Revenue/FTE	Institutional Research/Finance