

Montana University System
REQUEST TO PLAN FORM

ITEM 225-1506-R0726

Meeting Date: July 2026

Item Name: Request for authorization to plan an AAS in Heavy Equipment Operation and Maintenance

Program/Center/Institute Title: **AAS in Heavy Equipment Operation and Maintenance**

Planned 6-digit CIP code:
49.0202

Campus, School/Department: **Montana Technological University/Highlands College**

Expected Final Submission Date: **Spring 2027**

Contact Name/Info: **Tammy Burke tburke1@mtech.edu 406-496-3714**

This form is meant to increase communication, collaboration, and problem-solving opportunities throughout the MUS in the program/center/institute development process. The completed form should not be more than 2-3 pages. For more information regarding the program/center/institute approval process, please visit <http://mus.edu/che/arsa/academicproposals.asp>.

- 1) Provide a description of the program/center/institute.** – Highlands College is currently implementing a Heavy Equipment Operation CTS/CAS in Broadband Technology. To support this program moving forward and to increase student participation in this area, Highlands College would like to expand this program to include heavy equipment maintenance (distinctly different from Diesel Technology) to train heavy equipment maintenance technicians who would also be trained in the operation of this heavy equipment.
- 2) Describe the need for the program/center/institute. Specifically, how the program/center/institute meets current student, state, and workforce demands. (Please cite sources).**

Based on statistics from the [2025 Montana Labor Day Report](#) “Construction was the second largest contributor to economic growth in 2024. The rapid growth in Montana’s population and economy over the last few years pushed construction demand to historic levels. Montana’s construction output increased by 3.7% per year since 2019 – ranking 4th fastest growth among states. Construction output continued to accelerate in 2024, increasing by 7% on an inflation adjusted basis.” Heavy equipment operation and maintenance and related fields including transportation (+2.1%), construction (+4.3%) and trades (+1.6%) all show positive employment growth.

Specifically in Montana, there is a high need for equipment operators as indicated below with 430 annual job openings and a projected growth of 19%. (MTDLI Analysis of 2023 OEWS and occupational projections 2023-2033).

Detailed Occupation	Employment	Average Wage	Total Annual Openings 2023-2033	Projected Growth 2023-2033
Carpenters	3,990	\$50,320	670	22%
First Line Supervisors	3,870	\$76,140	640	22%
Construction Laborers	3,780	\$47,590	700	25%
Electricians	2,390	\$63,090	380	27%
Operating Engineers & Equipment Operators	2,030	\$61,440	430	19%
Office Clerks	1,870	\$41,600	1,500	3%
Construction Managers	1,460	\$112,080	190	23%
Plumbers, Pipefitters, and Steamfitters	1,420	\$75,100	270	22%
HVAC & Refrigeration Mechanics	1,120	\$51,900	160	26%
Painters	990	\$46,860	160	22%

Montana University System REQUEST TO PLAN FORM

Per the Bureau of Labor Statistics (BLS) (Montana and neighboring states of North Dakota and Wyoming, rank in the top five states with the highest concentration of jobs and location quotients in Operating Engineers and Other Construction Equipment Operators fulfilling the high demand high wage employment opportunity requirement. ([Operating Engineers and Other Construction Equipment Operators](#)).

State	Employment (1)	Employment per thousand jobs	Location quotient (9)	Hourly mean wage	Annual mean wage (2)
Wyoming	4,020	14.68	4.95	\$ 30.39	\$ 63,220
West Virginia	6,810	9.89	3.33	\$ 24.62	\$ 51,220
Alaska	2,930	9.42	3.18	\$ 36.74	\$ 76,420
North Dakota	3,880	9.29	3.13	\$ 31.08	\$ 64,650
Montana	3,670	7.31	2.46	\$ 28.84	\$ 60,000

Similarly, the BLS reveals similar statistics for high demand high wage opportunities for students in the area of Industrial Machinery Mechanics ([Industrial Machinery Mechanics](#)).

State	Employment (1)	Employment per thousand jobs	Location quotient (9)	Hourly mean wage	Annual mean wage (2)
Hawaii	510	0.89	0.32	\$ 34.35	\$ 71,450
Wyoming	2,300	8.80	3.17	\$ 34.13	\$ 70,990
District of Columbia	230	0.33	0.12	\$ 33.46	\$ 69,590
Connecticut	2,540	1.65	0.59	\$ 32.26	\$ 67,090
Montana	970	2.13	0.77	\$ 32.02	\$ 66,610

In addition to state and national data reflecting occupational shortages, Highlands College was also recommended this fall by our Industrial Advisory Board and industry partners including Montana Resources and Langlas to add programming specifically in these areas as the demand is extremely high in our local community.

3) Describe any significant new resources (financial, staff, facility, new curricula) needed to launch and sustain the program/center/institute.

This program will require 1-2 full-time faculty (depending on area of specialization). Due to the fact that we have the SCC Grant to purchase the majority of the equipment, the cost savings for this program will be significant in that it will primarily require faculty support. Faculty for the Broadband CTS will be used to supplement this program for the first three years which will also result in significant savings until the program is established. Highlands College currently has a large pole barn structure that may be able to be converted into a shop/lab area for this program as well as a current automotive shop area that may be used as supplementary lab space. Depending on the success/demand of this program, Highlands College may eventually seek additional funding for a lab/shop space more dedicated to heavy equipment storage and maintenance.

Montana University System
REQUEST TO PLAN FORM



4) Describe any efforts or opportunities you have identified for collaboration either within the institution or between MUS institutions (i.e. articulation, course-sharing, research collaboration).

Highlands College is currently in a consortium with FVCC and Missoula College for the Broadband Grant and all three institutions are offering Heavy Equipment Operation specific to the Broadband industry. I have also discussed offering this program with Dr. Tom Gallagher at Missoula College who supported this offering as the demand is quite high all across the state and the nation.

5) Describe how the program/center/institute fits with the institutional mission, strategic plan, existing institutional program array, and academic priorities as described in the most recent Academic Priorities and Planning Statement.

As stated in our mission, Montana Technological University provides a transformative student experience by developing leaders and advancing science, engineering, and technology, with **the purpose of benefiting humanity while meeting the changing needs of society**. Highlands College, through this program is committed to serving students by providing accessible and affordable, relevant, hands-on professional education, to support the economic development in Butte and the State of Montana. This program is designed to support multiple industries and occupations and will include courses that can be taken through high school dual enrollment opportunities which will then lead to a path of an applied science degree with hands-on industry training which supports the Butte and greater Montana communities. All Highlands College degrees also map to the 4-Year BAS option as well so there is room for these students to grow in their professions and earnings.

In the coming year, our academic priorities are centered on expanding Montana Tech's reach and impact in energy and workforce development. As noted in our most recent Academic Priorities and Planning Statement, Highlands College is accelerating its workforce development initiatives with new proposals including this proposal.

<u>Signature/Date</u>
Chief Academic Officer:  1/15/26
Chief Research Officer*:
Chief Executive Officer: 
Flagship Provost**:
Flagship President**:
*Center/Institute Proposal only **Not applicable to the Community Colleges.