

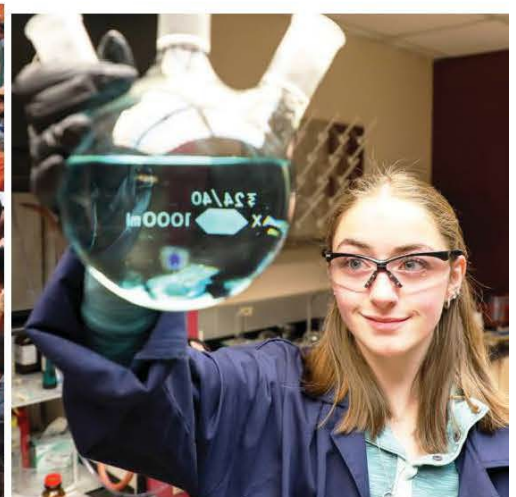
# EVALUATION OF INSTITUTIONAL EFFECTIVENESS REPORT

Northwest Commission on Colleges and Universities

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**MONTANA**  
TECHNOLOGICAL UNIVERSITY





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## Institutional Overview

Montana Technological University (Montana Tech) is a place of purpose, home to forward-thinking, teaching, research, and innovation. The university embraces its living laboratory and emphasizes the value of experiential learning and community building.

Montana Tech traces its roots to the enabling act of 1889 that granted statehood to the people of Montana. In that act, the United States Congress set aside 100,000 acres to establish and maintain a school of mines. The Montana State School of Mines was established by the legislature in 1893, and on September 11, 1900, the Montana State School of Mines opened its doors.

In 1965, Montana's legislature enacted name changes for the state's colleges and universities, and the School of Mines became the Montana College of Mineral Science and Technology. In 1994, the Montana Board of Regents (BOR) restructured the Montana University System into two affiliations for administrative purposes (Montana State University and University of Montana). Montana Tech became affiliated with the University of Montana, officially named Montana Tech of the University of Montana. The restructuring also assigned to Montana Tech what had been the Butte Vocational-Technical Center now known as Highlands College.

In March 2017, the Montana BOR approved a fourth institutional classification for higher education units in the state—Special Focus Four-Year Universities, in which Montana Tech became the first and only member. This new classification was added to the three previous classifications: Two-Year Colleges, Four-Year Regional Universities, and Research Doctoral Universities. This classification reflects the unique characteristics of Montana Tech and the opportunities a Special Focus designation can provide the University. The following year the BOR approved a request to rename the institution Montana Technological University.

Montana Tech has evolved over time into a dynamic institution composed of four schools and colleges: the Lance College of Mines and Engineering; College of Letters, Sciences, and Professional Studies; Highlands College; and the Graduate School. Prior to 1951, the college offered bachelor of science degrees in only five areas. Today, Montana Tech offers degree programs at the doctorate, master's, bachelor's, associate, and certificate levels. The student body exhibits a national and global snapshot with 44 states and 16 foreign countries represented. Montana Tech provides graduates with the knowledge and skills necessary for successful lives and careers, conducts basic and applied research, offers workforce development programs designed to meet local and state industries' needs, and provides related services to the citizens of Montana and beyond.

Montana Tech is a leader in science, technology, engineering, and mathematics (STEM) education. The University is one of a handful of institutions in the United States that maintains a wide variety of mineral and energy engineering degree programs. All of Montana Tech's engineering programs are accredited by the Accreditation Board for Engineering and Technology (ABET). Moreover, many of Montana Tech's engineering programs are not only

unique to the region but are also one of only a few in the country. For example, Montana Tech is one of only 14 universities in the United States offering a bachelor's degree in mining engineering and one of 20 in the nation offering an undergraduate degree in petroleum engineering. The metallurgical and materials engineering program is one of four programs in the nation that emphasizes mineral processing and extractive metallurgy in its curriculum and research activities. Montana Tech also offers the more traditional engineering programs including civil, electrical, environmental, geological, and mechanical engineering.

Additionally, Montana Tech offers non-engineering degree and certificate programs unique within the Montana University System (MUS). These include a doctorate in earth science and engineering, master's degrees in ecological restoration, industrial hygiene, and project engineering and management; bachelor's degrees in business and information technology, construction management, cybersecurity and network administration, interdisciplinary arts and sciences, and occupational safety and health; and certificates in pre-apprentice line. A number of Montana Tech's non-engineering programs have specialized accreditation/certification from entities such as the American Chemical Society (ACS) and The Commission on Collegiate Nursing Education (CCNE). Two-year degrees include radiologic technology, welding technology, and metals fabrication technology, among others.

The campus is also home to the Montana Bureau of Mines and Geology (MBMG). The MBMG, established as a state agency in 1919, continues to fulfill its mandate to collect and publish information on Montana's geology to promote orderly and responsible development of the energy, groundwater, and mineral resources of the state. MBMG's research faculty closely collaborates on a number of research programs and in the mentoring of graduate students.

Montana Tech's atmosphere encourages faculty-student interaction, and undergraduate and graduate students are frequently involved with faculty and staff in research programs. Montana Tech's commitment to research has resulted in significant growth in its funded research over the last several years. The institution's funding base has diversified to include local, state, and national support from the private sector and government.

Montana Tech's world-renowned reputation is based on the successes of over 100 years of graduates. While the campus continues to receive recognition for its heritage programs, growth in areas such as business, nursing and health sciences, and safety/industrial hygiene have significantly broadened the diversity of degree offerings. In turn, this diversity attracts students who have varied career interests and objectives. The changes at Montana Tech over the past years have served to amplify our role and mission as Montana's only Special Focus University.

## Preface

Montana Technological University (Montana Tech) experienced a number of changes, challenges, and opportunities since its 2017 Evaluation of Institutional Effectiveness (EIE) report. An overview of major changes is provided below. The responses to the Year 6 Policies, Regulations, and Financial Review (PRFR) recommendations are included as addenda.

## Brief Update on Institutional Changes

### Institution Identity

In March 2017, the Montana Board of Regents (BOR) Academic, Research and Students Affairs Committee reviewed the Montana University System (MUS)'s Institutional Role Differential processes and definitions. The committee recommended the addition of a fourth classification—*Special Focus Four-Year Universities*—to MUS's traditional primary components (Doctoral Research Universities, Baccalaureate/Masters Universities, Two-year Colleges). The committee then also recommended Montana Tech be re-classified as Montana's only Special Focus Four-Year University. The BOR approved these proposed changes during their May 2017 meeting. In May 2018, the Board of Regents approved a request to change the institution's name from *Montana Tech of the University of Montana* to *Montana Technological University*, retaining Montana Tech as its familiar informal name.

### Administrative Personnel Changes

Dr. Don Blacketter's October 2018 announcement that he would retire as chancellor of Montana Tech in June 2019 initiated a national search for a new chancellor. Four finalists were announced in March 2019, followed by a comprehensive selection process involving a number of stakeholders. Dr. Les Cook was selected as Montana Technological University's 12<sup>th</sup> chancellor and took office on July 1, 2019.

Dr. Cook oversaw the hiring of the following leadership positions:

- Provost and Executive Vice Chancellor
- Vice Chancellor for Administration and Finance
- Vice Chancellor for Research and Dean of the Graduate School
- Vice Provost for Student Success and Dean of Students
- Dean, College of Letters, Sciences, and Professional Studies
- Dean, Lance College of Mines and Engineering
- Dean, Highlands College

Dr. Cook also reconfigured the executive and leadership teams to reflect a shared governance model and organized broad and diverse teams of employees, students, and others to advance and implement numerous strategic efforts.

### Opportunities for Students

Opportunities for Montana Tech students have expanded and include additional certificate and degree offerings and experiential learning opportunities. The Montana Board of Regents

approved several new degree programs, including a Ph.D. in earth science and engineering, a master of science in restoration ecology, a bachelor of science in construction management, and an associate of applied science in welding technology. Both the civil and mechanical engineering programs acquired Accreditation Board for Engineering and Technology (ABET) accreditation. Highlands College received more than \$1 million in workforce development grants to develop new credentialing programs and other opportunities that meet employment needs in the region.

A historic cooperative research and development agreement was established in 2022 with Naval Undersea Warfare Center Division, Keyport. The agreement builds from, and leverages, over 10 years of research at Montana Tech in materials and manufacturing for defense applications. The agreement lays a foundation for Montana Tech students to be co-mentored directly by United States Navy scientists and engineers. It allows students to access advanced experimentation and collaboration in advanced manufacturing, failure analysis, and materials process development.

### **Charitable Gifts**

Montana Tech received a remarkable string of gifts over the past few years. Major gifts include:

- An October 2021 donation of \$7 million from Dave and Sherry Lesar to grow and sustain the quality and reach of the nursing department's bachelor of science in nursing (BSN). The donation was the largest single gift to Montana Tech at the time. In November 2021, the nursing department was renamed the Sherry Lesar School of Nursing.
- In April 2023, Ryan and Lisa Lance donated a historic \$31 million to the University. This generous gift will benefit future students, educational programs, research, entrepreneurship, and is a pivotal investment in shaping the energy workforce of tomorrow. In September 2023, the School of Mines and Engineering was renamed the Lance College of Mines and Engineering. Allocation of the Lance gift includes:
  - Funding for the Lance Scholars Program which annually provides 50 in-state students with the opportunity to receive a \$4,000 per year scholarship, renewable for up to three additional years.
  - \$1 million to the Digger Athletics Endowed Scholarship generating greater access for student-athletes to compete and achieve excellence on and off the field.
  - Support for an endowed Lance Energy Chair whose primary responsibility is to enhance Montana Tech's prominence as a national leader in energy, environment, and sustainability.

### **Physical Facilities Upgrades**

Significant physical upgrades have been completed since 2017:

- Completed the 10,000-square-foot Student Success/Living Learning Center in 2019. The \$24 million building houses administrative offices, student support services, dining facilities, and more than 160 students in its living space.
- Updated the Library Auditorium in 2020.
- Constructed the Schweitzer Engineering Power-Systems Labs with a \$1.5 million donation from Schweitzer Engineering Laboratories (SEL). The labs, which opened in

2021, enable the Department of Electrical Engineering to be one of the best high-voltage power-engineering programs in the U.S.

- Renovated the Marcus Daly Dining Hall in 2021.
- Opened a new, state-of-the-art Lesar Family Nursing Simulation Center in 2022.
- Upgraded campus-wide classroom and laboratory instructional technology.

During the 2023 session, the Montana Legislature designated the largest capital appropriation in University history, allocating \$43 million to renovate Main Hall and Engineering Hall.



# Student Success, and Institutional Mission and Effectiveness

## Standard 1.A–Institutional Mission

### Standard 1.A.1

The institution’s mission statement defines its broad educational purposes and its commitment to student learning and achievement.

Per Montana Board of Regents (BOR) Policy [219](#), Montana Tech’s mission statement is reviewed by BOR every three years. In [September 2019](#), the mission statement and core themes identified in [Montana Tech’s Year 1 report](#) was reconfirmed by the BOR.

*Montana Tech, through exemplary undergraduate and graduate education, workforce development, research, and service, builds on a strong heritage in engineering, science and technology that blends theory with practice in meeting the changing needs of society and the responsible development and use of natural resources.*

**Core Themes:** (1) Education and Knowledge (2) Student Achievement (3) Engaged Faculty (4) The Montana Tech Community

In response to institutional programmatic growth and the evolving national landscape of the academic environment, the Montana Tech mission statement and goals were revised and approved in [2021](#). The mission statement was developed through a broad campus [team](#) as part of the development of the [strategic plan](#). The revised mission states:

*As Montana’s Special Focus Institution, 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.*

**Goals:** (1) Student Success (2) Programs of Distinction (3) A Healthy Vibrant Campus Ecosystem

Montana Tech’s revised mission statement aligns with the mission parameters defined by Board of Regents Policy [BOR 219.1](#) and the role within the Montana University System. The mission statement reflects the educational purpose of a Special Focus University within the MUS with a high concentration of degrees in single or related fields, undergraduate education focus while including graduate and research within the focused areas. The mission statement further defines the focus areas of science, engineering and technology while honoring the broad educational purpose of benefiting humanity and meeting the changing needs of society.

The purpose and commitment to education, student learning, and achievement are further defined by the [vision, values, and goals](#).

## Standard 1.B—Institutional Effectiveness

### Standard 1.B.1

The institution demonstrates a continuous process to assess institutional effectiveness, including student learning and achievement and support services. The institution uses an ongoing and systematic evaluation and planning process to inform and refine its effectiveness, assign resources, and improve student learning and achievement.

Montana Technological University evaluates institutional effectiveness through a formal strategic planning process, assessment of student learning and achievement, student support, academic program review, and a budgeting process that considers each of these areas in resource allocation. Evaluation also is triggered by external forces, such as Montana University System (MUS) requirements and benchmarks, NWCCU requirements and standards, and external accreditation and industry standards.

#### Strategic Planning

The [timeline of the strategic planning process](#) illustrates the informed, inclusive, and adaptable process Montana Tech followed in evaluating institutional effectiveness through the Workgroup for Institutional Realignment for Excellence (WIRE), Program Prioritization/Alignment Plan, several campus committees, and campus meetings that cumulatively led to the new strategic plan. Prior to beginning the strategic planning process in 2019, campus leadership determined the need to focus efforts on enrollment, student success, marketing and messaging, campus infrastructure and environment, and established five committees with broad campus representation. The committee's recommendations provided a framework for developing the new strategic plan, *Deliberately Distinct: Positioning Montana Tech for the Future*, that now guides the implementation of the recommendations. The three goals identified in the strategic plan and the initiatives that followed are being reviewed continuously and assessed for effectiveness. Data from these assessments determines how specific initiatives or efforts move forward, or if the course of trajectory needs to be modified.

#### Student Learning and Achievement

Student learning and achievement are assessed through an institutional [program review](#) process, and in many cases, relevant accrediting agencies. The institution's assessment framework was developed to encompass multiple parameters for continuous improvement and graduate success as defined in Table 1. Additional details of the parameters of assessment and the process and structure of academic program reviews can be found in the [2018 Mid Cycle Report](#).

Term	Definition
Mission	A short statement of a program's purpose. What program is trying to achieve?
Program Educational Objectives - PEOs	What alumni attain a few years after graduation. Fulfills mission.
Student Outcomes - SOs	What students should know and are able to do at the time of graduation.
Performance Indicators - PIs	Specific, measurable statements identifying the performance(s) required to meet the SOs; confirmable through evidence. PIs provide clarity to the SOs.
Assessment Data or metrics	Data collected to conduct assessment.
SOs Assessment	Process that identifies, collects, and prepares assessment metrics to be used in the SOs evaluation. Directly measures attainment of PIs.
SOs Evaluation	Process of reviewing the SOs assessment results and making a determination of the value of findings and actions to be taken.
PEOs Review	Process of reviewing the PEOs to ensure they: 1) remain consistent with the program mission and the constituents' needs; and 2) graduates are prepared to achieve the PEOs.
Constituents	Students, alumni, industry, faculty

Table 1: Assessment parameters of academic program review.

Two faculty members representing different colleges completed the Cohort 3 NWCCU Mission Fulfillment Fellowship, which took place in March 2021 and completed in June 2022. One specific outcome included an analysis of the current academic program review template to determine whether necessary and appropriate information was being reported that would allow critical assessment of student achievement. Through the leadership of the two faculty fellows and the deans, recommendations led to the improvement of the assessment process that evolved toward more clearly defined metrics and approaches to improve when benchmarks are not met.

In addition to the internal program review process, the MUS Board of Regents (BOR) policy [303.3](#) requires all institutions conduct internal reviews of their academic programs every seven years to ensure quality and stewardship of resources. The Board of Regents [publishes](#) the schedule and reports.

Montana Tech requires that each instructor administer an evaluation among all students enrolled in the course at the end of each semester, prior to the conclusion of the course. Students are asked to assess the effectiveness of the course and instructor, to what degree learning objectives were achieved, and their satisfaction with the course and instructor. Comprehensive results of the course evaluations are then shared with academic department heads and deans to facilitate a constructive review with each instructor regarding their course(s). These reviews include ensuring that learning objectives are met, and that instructors are responsive to student feedback.

### Student Support

Student support services undergoes a comprehensive [assessment](#) process annually. These assessments are specific to each unit and require goals to be linked back to one or more of the three overarching goals of the Montana Tech strategic plan. The assessment of each unit is based on goals set at the start of the academic year, or their specific review cycle. The assessments include a review of prior objectives, updated/continued objectives for the upcoming academic year, and key performance indicators. These assessments also include key

achievements and key challenges, and these along with the overall assessment contribute to the unit directory priorities in resource allocation. Ongoing and future goals and objectives are set for the upcoming review cycle.

Montana Tech's Academic Center for Excellence (ACE) engages in regular and robust assessment of student support services to improve student achievement. The EAB student success management tool, Navigate (Navigate360), was piloted in a "soft" rollout in 2021, and the campus has been able to assess and evaluate the effectiveness of professional advising and academic support services through this platform. Montana Tech is in the process of expanding the use of Navigate across both campuses. Following a gap in assessment during COVID and COVID recovery, advising and tutoring services are being assessed annually and each semester via student surveys. These surveys are then used to make strategic decisions on services offered. Based on the results of a tutoring survey, training for peer tutors was updated to include training on learning theory and critical thinking. Advising surveys of students inform trainings and communication to advisors and Enrollment Services. The Office of Disability Services and Accessibility regularly assesses quality and quantity of services provided to students, faculty, and staff. These surveys have led to improved physical and digital accessibility and increased supportive features for students and instructors. Further details about support provided by ACE can be found in Section C7.

### **Resource Allocation**

The University budgeting process provides an opportunity to assess institutional effectiveness and ensure that University resources are aligned with University priorities and guided by [Montana University System Budget Metrics](#).

The university budgeting process is ongoing and critical elements and timelines are defined and guided by the [Budget Process Timeline](#). State funds are allocated annually from the Montana University System, with a fiscal year of July 1–June 30 and the Board of Regents approves the University budget annually at their September meeting. Budget analysis for the upcoming fiscal year begins in October following Board of Regents approval of the current year budget with projections for enrollment and revenue continuing through June of the following year. Estimated revenues and expenses, as well as expected state funding, are analyzed by the Budget Office and discussed with the University Budget Committee throughout the budget development process.

Key players in the budgeting process are the Budget Office, Institutional Research, the [University Budget Committee \(UBC\)](#), and the Executive Budget Committee (EBC) with the goal of developing a fiscally prudent budget and the allocation and management of a balanced budget that aligns with the Montana Tech strategic plan and supports the University's mission and goals while accounting for the Montana University System – Board of Regents operating budget [metrics and targets](#).

The UBC, comprised of representatives from the Faculty Senate, Staff Senate, and student government, meets quarterly at a minimum and more often at critical times within the budget

cycle. The committee reviews and evaluates: legislative and MUS economic and financial projections, governor's executive budget proposal, annual and biennial base budgets, current enrollment, revenue, and expense projections, and assists with strategic prioritization, planning, developing and monitoring of the budget. The committee advises by making budget recommendations to the EBC on matters including base budgets, current year budget adjustments, reallocations and new initiatives and priorities. The EBC, which is comprised of the chancellor, provost, budget director, and vice chancellor for administration and finance, meets monthly to review the current fiscal year budget versus spending.

Budget information is provided to the campus community through campus forums that are conducted during the academic year in September, October, and May to provide updated budget and financial status to the entire campus. A detailed budget is also published on the Budget and Human Services – Administrative Services [website](#); as well as, budget metrics, enrollment reports, a description of the budgeting process, and UBC agendas, and meeting notes. UBC members are also a critical conduit to and from the constituents they represent.

### **Performance Based Funding**

The Montana University System utilizes performance-based funding, setting aside a portion of state funding for campuses that meet performance goals. The overall goal is: "Utilize performance funding as a system-wide strategy to increase degree production and help reach the State's goal of increasing the percentage of the population with a higher education credential from 40% to 60%." The funding indicators include undergraduate degrees/certificates awarded and under-represented/at-risk graduates, retention rates and under-represented retention, dual enrollment, master level degrees awarded, remedial success, graduate student and credit accumulation. Institutions are measured on the increases over their own three-year average, resulting in a weighted score for each indicator. These are measured against a system-wide growth target. A campus failing to reach the growth target receives a reduced percentage of the available performance funding for that particular campus. While the funding model was developed as an incentive for campuses to receive additional funding, it has served as a guideline for Montana Tech's development of performance indicators and measures.

### **Campus Planning and Long-Range Building Program**

Montana Tech recently completed a campus facilities planning process with the help of representatives from across campus. The Campus Facilities Planning Committee established a shared vision for developing and maintaining the physical campus environment. The [campus facilities plan](#) provides a roadmap for future changes to the physical campus designed to support and enable the University to accomplish its mission and will be utilized in allocating and prioritizing funding received from the State of Montana and private sources.

Montana Tech participates in the State of Montana Long Range Building Program (LRBP). The Montana Legislature meets every two years to allocate state funding for academic buildings. LRBP planning is an ongoing process that begins immediately following the biennial legislative session (odd-numbered years) over one and a half years before the next legislative session convenes. Montana Tech projects received the largest investment in infrastructure to the



campus in the history of the LRBP in the FY25 budget with a total of [\\$43 million](#) in funding for capital development projects and major repair projects. The funding will be used to renovate two academic buildings, Main Hall and Engineering Hall, with renovations focused on updating and modernizing classrooms and laboratory space, and will address deferred maintenance across campus.

### **Implemented Improvements**

Demonstrations of the planning described above are presented in the example of financial aid assessment. Montana Tech partnered with Ruffalo Noel Levitz (RNL) in 2019 to implement Advanced FinAid Solutions (AFAS), a service designed to help institutions leverage their scholarship and financial aid dollars. The primary objective was to positively impact the yield of non-resident students in anticipation of a projected decline in Montana high school graduates. After conducting extensive analysis of historic enrollment and scholarship data, RNL recommended changing how Montana Tech approached the Western Undergraduate Exchange (WUE) tuition status. Before this, the WUE was awarded as a merit scholarship to the highest-achieving students. Montana Tech's Executive Team voted to adopt RNL's recommendation and opened the WUE to all applicants in qualifying states. The number of WUE students increased significantly (41%) during the three-year AFAS contract period, which concluded in 2022. In the spring of 2023, the Tuition, Waivers, and Scholarship work group continued assessment of the program and concluded that the benefits of increased headcount and brand awareness outweigh the cost of decreased non-resident tuition revenue and voted to continue the program for the 2023/24 academic year. This group continues to assess the effectiveness of non-restricted WUE annually.

### **Standard 1.B.2**

The institution sets and articulates meaningful goals, objectives, and indicators of its goals to define mission fulfillment and to improve its effectiveness in the context of and in comparison, with regional and national peer institutions.

Montana Tech utilizes indicators of institutional effectiveness that are aligned with the [MUS Performance Based Funding](#) model. Indicators of achievement include but are not limited to enrollment, retention, and degree completion. These metrics are standardized across the MUS and allow for comparisons of institutions within the state. Additionally, these indicators align with the Integrated Postsecondary Education Data System (IPEDS) information for comparison to regional and national peers. Montana Tech added a fourth indicator of achievement of experiential learning to ensure the institution remains heavily invested in High Impact Practices as defined and endorsed by the AAC&U. Montana Tech also subscribes to NSSE to continuously assess effectiveness in comparison to regional peers (as defined by NSSE), Carnegie peers, and all institutions administering the NSSE.

In the summer of 2023, the Montana Tech Leadership Team began developing draft objectives and indicators of achievement for the new strategic plan, [Deliberately Distinct: Positioning Montana Tech for the Future](#). The draft objectives and indicators were designed to align with the initial four indicators and address the three goals of student success, programs of

distinction, and healthy vibrant campus ecosystem. Through a robust broad-based campus discussion, Montana Tech will refine the draft, identify meaningful benchmarks, and finalize objectives, indicators, and benchmarks in Fall 2024 and thus defining mission fulfillment.

### **Goal 1 Student Success**

A campus committee formed in 2020 was tasked with analyzing data from both the institution and external sources to formulate a data-driven plan to specifically address student success and the indicators of achievement of enrollment, retention, degree completion, and experiential learning. The following objectives were drafted from the committee report.

**Objective 1:** Utilize case management systems to centralize data to support success and retention.

- a) Expand Navigate360 use by faculty and staff
- b) Invest in non-clinical case resources to be housed within the Academic Center for Excellence
- c) Expand student participation in Mantra Health

**Objective 2:** Expand programs and resources to close equity gaps, increase access, and remove barriers to success.

- a) Complement the Lance Scholars Program with additional scholarship opportunities
- b) Grow the Kasperick Emergency Fund to provide emergency/finishing scholarships.
- c) Expand the Associated Students of Montana Tech (ASMT) Food Pantry
- d) Create and expand the summer bridge program in math and writing for underprepared students

**Objective 3:** Invest in cocurricular opportunities to create a holistic student experience.

- a) Increase student wellness programming and initiatives
- b) Launch a training series for student club/organization advisors focused on support strategies

**Objective 4:** Invest in professional development opportunities that support academic programming

- a) Deliver a regular schedule of professional development in instruction to include multiple modalities
- b) Create a formal program to train faculty in best practices advising strategies.

**Objective 5:** Enhance the sense of belonging for the campus community.

- a) Provide an immersive, five-day orientation experience for new students that emphasizes academic and personal resources.
- b) Organize a centralized check-in and move-in processes to all new students that involves student orientation leaders, volunteers from the campus and Butte community, and faculty/staff.
- c) Create a physical space to serve as the foundation for future “inclusive excellence” resources.
- d) Create a new position focused on student outreach and belonging.

- e) Renovate/improve the designated veteran lounge spaces

## **Goal 2 Programs of Distinction**

Objectives for this goal were drafted to encompass opportunities that strengthen the connection between students and faculty, grow the institution's research enterprise, and that foster the growth of career opportunities for graduates with degrees or certificates from both the 4-year and 2-year campuses.

**Objective 1:** Increase the number of opportunities in experiential learning

- a) Percentage of seniors experiencing two or more HIP to exceed the NSSE average
- b) Increase the number of faculty engaged in research projects that engage students

**Objective 2:** Ensure sustained faculty excellence

- a) Faculty will meet or exceed departmental standards in instruction, research and scholarship/professional development, and service
- b) Increase faculty engagement in professional development opportunities

**Objective 3:** Expand mentoring opportunities for students

- a) Expand and formalize peer mentoring programs
- b) Increase the number of opportunities for students to engage in mentoring processes through teaching assistantships, research assistantships, and engagement in supplemental instruction.
- c) Sustain and expand student success workshops for underprepared students
- d) Increase the percentage of senior experiences with faculty as defined by NSSE

**Objective 4:** Increase the number of community, government, and industry partnerships

- a) Increase the number of external partnerships in research, educational and/or workforce development at the 4-year and 2-year campuses
- b) Increase the number of sustainable industry partners engaged with Career Services

## **Goal 3 Healthy and Vibrant Campus Ecosystem**

Draft objectives for goal 3 were derived from several different perspectives and reflect recommendations made by campus constituents through work on a specific task force and/or the strategic planning process.

**Objective 1:** Regularly assess, evaluate, and improve the campus work environment

- a) Decrease the staff turnover rate
- b) Decrease the faculty turnover rate
- c) Increase participation in employee satisfaction surveys

**Objective 2:** Develop comprehensive professional development opportunities for staff

- a) Offer professional development programming to all staff
- b) Provide additional opportunities for staff to be recognized for excellence

**Objective 3:** Develop a robust onboarding and orientation process for all faculty and staff

- a) Increase utilization of recently created onboarding checklists
- b) Implement cross-training procedures for key roles
- c) Develop a comprehensive policy index to ensure all employees have easy access to current policies and procedures

**Objective 4:** Adopt comprehensive facilities operations and building plan

- a) Implement strategic campus facilities plan for utilization of LRBP funds for Main Hall and Engineering Hall

### **Standard 1.B.3**

The institution provides evidence that its planning process is inclusive and offers opportunities for comment by appropriate constituencies, allocates necessary resources, and leads to improvement of institutional effectiveness.

Montana Tech's planning process can occur at various levels from planning within the Montana University System (MUS) and University of Montana affiliation to an individual department. The timing and frequency of the planning can be scheduled or ad-hoc with emerging trends. Processes include collaboration and information solicited from faculty, staff, students, industry and the community. Formal campus governing bodies include, [Faculty Senate](#), [Staff Senate](#), Associated Students of Montana Tech ([ASMT](#)), and [Executive Team](#). Alumni and industry partnerships are also formalized through Industrial Advisory Boards (IAB) and the [Alumni Association](#).

Commitment to constituency representation and transparency is demonstrated through composition of many campus committees as outlined by the [faculty staff handbook](#), appointed ad hoc committees (i.e., [Strategic Planning Team](#)), or BOR policy (i.e. [Policy 940.3](#) – Mandatory Fees Computer Fee Uses). Communication through appropriate constituencies, including resource allocation, is facilitated through the representation and charge of the [Leadership Team](#), the [University Budget Committee](#) and also the [Advancing Tech Forums](#).

The Montana University System governance is vested with the Montana Board of Regents, a 7-member board appointed by the governor. The Long Range Building process and academic planning/approval process are both examples of the timely and systematic processes of institutional campus planning up through the BOR. (See Standard 1.B.1 and 1.C.5). Planning and inclusivity of constituencies can also be brought about by system initiatives. For example, in 2021, the system initiated a process to evaluate the feasibility of using a single Learning Management System ([LMS](#)). Montana Tech at this same time was developing a new mission and strategic plan. The cornerstones of the MUS process were improving student and faculty experience, lower costs for the campuses, and facilitate academic collaboration among the system; all of these aligning with Montana Tech's mission and goals. In Fall 2022, a system wide advisory committee was identified with representation from all campuses, including Montana Tech. Communication and solicitation of information from Tech's campus constituents was coordinated through [MUS](#), Tech's advisory committee representative and the [Provost](#). In Fall

2023, the Montana University System [announced](#) the selection of Instructure (Canvas), which will be a change for Montana Tech from Moodle. Faculty Senate, Information Technology, and Academic Affairs continue to plan, communicate, and collaborate on the implementation of Instructure, anticipate the [financial implications](#), identify resources needed to transition courses and complete the transition by Fall 2025. As the only special focus institution within the MUS, the increased opportunity for academic collaboration within the MUS highlights an opportunity to realize and expand opportunities to students through Montana Tech's programs of distinction.

Following WIRE, program prioritization, and the alignment plan, transitioning leadership committed to the [vision](#) of student success, enrollment, telling our story, and positioning ourselves for the future in the Fall of 2019. Montana Tech contracted with ADV Market Research & Consulting to establish a refreshed brand to better understand its position and corresponding opportunities for the future. The [Montana True](#) brand was the result of market research, solicitation of stakeholders including prospective students, current students, faculty, staff, and alumni. Coinciding with the brand efforts, Montana Tech also contracted with RNL on an enrollment plan with data driven [goals](#), increasing new first-year residents and increasing new first-year female students. With the vision of enrollment and positioning ourselves for the future, Montana Tech implemented a website redesign that was rolled out to campus in the [Spring of 2023](#) after communicating with individual departments on content. The website redesign is the product of years of planning and elevated resource allocation to realize enrollment goals and improving institutional effectiveness. The initial goals of Fall 2019, developed with feedback from constituencies, communicated regularly, and grounded in information, are continuing in institutional planning.

In the Fall of 2020, Montana Tech began developing a strategic plan. This work included the development of mission, vision, and value statements, and strategic goals. In November 2020, a campus-wide strategic planning [committee](#) was appointed with broad representation from the campus community. The resulting strategic plan, *Deliberately Distinct: Positioning Montana Tech for the Future*, has received buy-in from all stakeholders and represents the framework for evaluation of institutional effectiveness moving forward.

#### **Standard 1.B.4**

The institution monitors its internal and external environments to identify current and emerging patterns, trends, and expectations. Through its governance system it considers such findings to assess its strategic position, define its future direction, and review and revise, as necessary, its mission, planning, intended outcomes of its programs and services, and indicators of achievement of its goals.

Montana Tech has utilized multiple sources and initiatives to identify and respond to trends in higher education, several of which are outlined below. All of these have worked in concert, especially over the last 5 years to adjust to major shifts in the landscape of higher education, trends in job growth or reduction, and escalating nation-wide focus on workforce development.



### **Assessment through university governance**

The previous chancellor directed a comprehensive assessment of the institutions strategic position in 2017 by forming the Workgroup for Institutional Realignment for Excellence (WIRE). The charge to this group that was comprised of representatives from campus constituents was to “define what it meant for Montana Tech to be Montana’s special focus institution.” Data were collected from multiple sources including those internal to the institution, peer institutions, IPEDS, the Department of Labor, and National Science Foundation Higher Education R&D (HERD) surveys. The goals, process and outcomes of this initiative are described extensively in the [2018 Mid-Cycle Report](#). One major outcome was defining metrics and directions that would guide the next phase of program prioritization. The Program Prioritization Committee (PPC) made recommendations to the administration that resulted in the [Montana Technological University Alignment Plan](#). Recommendations of the PPC included the need to strengthen current academic offerings, reduce or eliminate low enrollment programs, focus on growing engineering, science and technology programs, and refine student learning outcomes, indicators of achievement and success.

In 2020, the new chancellor formed five campus committees with broad representation to examine current practices and future trends in higher education and campus life. These committees included Recruitment, Student Success, Campus Space and Refresh, and Marketing and Communications. The final reports from each committee helped inform the strategic plan and initiatives that align with the goals, objectives and indicators of achievement. The fifth committee was the Leadership Education and Development ([LEAD](#)) team which supports a healthy and vibrant campus ecosystem by building relationships and connections across all parts of our community, creating opportunities for learning and honing leadership skills, and fostering a mindset of growth and productive communication, and resiliency.

### **Assessment through engagement with external environments and constituencies**

The institution continuously engages with multiple external environments that provide a broad range of perspectives on programs, current roles and operations in higher education. The [Office of the Commissioner of Higher Education \(OCHE\)](#) provides enrollment trends and other data that are detailed by individual institution as well as for the MUS as a whole. These data inform for example, enrollment projections and recent trends in math and writing preparedness of incoming students, the latter of which the institution is actively responding to with a new bridge program for underprepared students.

Multiple departments maintain Industry Advisory Boards that review curricula and keep programmatic faculty and staff apprised of the most recent trends in industry and opportunities for employment at present and into the future. The institution further maintains currency through its membership in a broad representation of professional organizations and accrediting bodies.

In 2020, Montana Tech engaged the services of EAB to conduct an academic portfolio health check that evaluated the institution’s undergraduate and graduate portfolio and assessed growth opportunities based on labor market demand and competitive employment landscape

variables. These variables included regional job growth over time, national projected job growth, regional competitive field saturation, and regional degree completions. In addition, Ruffalo Noel Levitz (RNL) worked closely with University constituents on an institutional recovery plan in response to declining enrollment, market share development, and financial aid practices to develop a strategic enrollment and recruitment plan.

The institution continues to respond to emerging trends in secondary education brought on in part by the pandemic through an increased focus on alternative credentialing options targeted primarily to workforce development at Highlands College. As an example, in 2021, Highlands College requested authorization from the Board of Regents ([BOR ITEM 1501-LI1121](#)) to offer an AAS in welding technology and update the existing Welding Technology Certificate. The impetus for requesting this change in curricula and credit was to align with the National Center for Construction Education and Research best practices. Support for these modifications was based on input from Highlands College faculty and collaboration with the MUS Two-year colleges including Gallatin College of Montana State University and Great Falls College of Montana State University.

## **Standard 1.C—Student Learning**

### **Standard 1.C.1**

The institution offers programs with appropriate content and rigor that are consistent with its mission; culminates in achievement of clearly identified student learning outcomes that lead to collegiate-level degrees, certificates or credentials with designators consistent with program content in recognized fields of study.

The academic rigor at Montana Tech is illustrated through programs and curricula that challenge students in the theoretical underpinnings of specific disciplines and foster skills in critical thinking, problem-solving, creativity, and communication. Appropriate course content and rigor remain consistent with Montana Tech’s mission and are ensured through a multilayered formal process. The learning outcomes for academic programs are clearly defined, publicly available, and aligned with course sequences fully vetted and guided by BOR policies. Implementing the MUS [Common Course Numbering \(CCN\)](#) in 2018 eases course transfer between institutions throughout the MUS system, upholds academic standards, and increases accessibility for students. Courses offered at Montana Tech, in person or online, comply with content defined in the CCN system.

On the Montana Tech campus, the following processes are in place to ensure curricular content is current and programs are operating effectively. All academic departments are required to submit [program reviews](#) once every two years. This institutional policy was adopted in 2018 as outlined in the [Year 1 Self Evaluation](#) report in response to recommendations by the 2017 NWCCU reviewers. The schedule was disrupted in 2020 by the COVID pandemic, but is back on track, and reviews were performed in consecutive years, [2022 and 2023](#).

At the campus level, there is an internal process for new, changing, or expanding programs. This process begins with department faculty who assess to what extent sufficient personnel and

resources are available to create or continue programs that are appropriate to the mission. The [Curriculum Review Committee](#) is the first line of oversight to ensure curriculum changes are coordinated with other departments and any changes will not have a negative effect on other curricula. Specifics of the formal process and progression toward attaining appropriate approvals is outlined in the [CRC process document](#) that includes course syllabi, required resources, and learning outcomes. Curricular changes that involve the [General Education requirements](#) must be approved by the General Education Committee and be consistent with the [General Education and MUS Transferrable Core](#). The Faculty Senate provides final approval of all academic programs.

[Level I and Level II](#) program proposals for substantive changes or additions, e.g. new degree programs, new minors, major program revisions, must be submitted to the BOR and are reviewed according to [BOR policy 303.1](#). This policy includes multiple parameters of analysis that include but are not limited to consistency with mission, evidence of student and employer demand or societal need, as well as institutional capacity to deliver.

Many academic programs at Montana Tech are members of [national professional societies and many are accredited by the relevant agency](#). For example, most academic programs in the Lance College of Mines and Engineering are ABET accredited, the Department of Chemistry and Geochemistry is ACS accredited, and nursing is accredited by the Commission on Collegiate Nursing Education. In addition to meeting or exceeding accrediting body standards, faculty engagement with specialized professional organizations and department Industrial Advisory Boards (IAB) further ensures the curricular content remains relevant to the sector and that degree programs and curricula are consistent with the industry needs so that students are adequately prepared upon completion. The rigor of program offerings is assessed and maintained through the oversight of the Montana Tech faculty and academic departments. Formal oversight of the CRC, adhering to all MUS BOR policies, and departmental assessment in program review apply to all credentials in recognized fields of study at Montana Tech.

### **Standard 1.C.2**

The institution awards credit, degrees, certificates, or credentials for programs that are based upon student learning and learning outcomes that offer an appropriate breadth, depth, sequencing, and synthesis of learning.

Student learning and learning outcomes are reviewed and evaluated by department faculty, frequently with input from external agencies, to ensure they are appropriate in breadth, depth, and sequencing for the program and at the level of individual courses. The institutional program review process assesses learning outcomes regularly to ensure they remain appropriate and current and align with programmatic and student expectations.

Course content and sequencing is also vetted and approved by the MUS Board of Regents through the [Common Course Numbering System \(CCN\)](#) to ensure topical and consistent outcomes. Various direct and/or indirect assessment methods are utilized to assess content mastery for each course. All degree-required courses approved by the CRC, Faculty Senate, and

Board of Regents must be completed successfully to award a degree, certificate, or credential. Synthesis of learning is ensured and is consistent with BOR Policy [303.1](#) that all academic programs will conclude with a capstone or culminating senior experience that integrates learning outcomes with competencies. While some departments currently have a system established by which the outcomes are mapped from course to program to institution levels, this is an area that can be improved.

### **Standard 1.C.3**

The institution identifies and publishes expected program and degree learning outcomes for all degrees, certificates, and credentials. Information on expected student learning outcomes for all courses is provided to enrolled students.

The Montana Tech [Catalog](#) includes descriptions for each program, including the following: expected learning outcomes and information on courses, degree and program completion requirements, required course sequences, and projected timelines to completion based on normal student progress and the frequency of course offerings. The academic programs are grouped by school or college: [College of Letters, Sciences and Professional Studies](#), [Highlands College](#), [School of Mines and Engineering](#) (renamed the Lance College of Mines and Engineering, and the [Graduate School](#). Also within each program details are the measures of assessment used to determine the learning outcomes have been met. The expected learning outcomes for each undergraduate program are listed in the Catalog within each academic college and linked on the [website](#). All courses required for degrees, certificates, or credential programs are available to students and advisors through the course catalog and the degree audit tool (DegreeWorks). BOR policy also requires that campuses have procedures to track degree requirement completion and time expected to earn a degree ([BOR 301.13](#)).

The [Graduate School](#) outcomes are listed in the Catalog at the college level, unless the program's own outcomes have been reviewed and endorsed by the Graduate Council. For example, the [MS Industrial Hygiene Distance Learning/Professional Track](#) is accredited by the Applied and Natural Science Accreditation Commission (ASNAC) of ABET, and outcomes for the program are not the Graduate School outcomes.

As another example, the [mathematical sciences](#) portion of the [Catalog](#) provides information on the expected learning outcomes, and the curriculum outlines the course sequencing by semester and year. Course description, prerequisites, and typical frequency within the curriculum can be accessed from the curriculum outline or the [course description](#) portion of the course catalog.

### **Standard 1.C.4**

The institution's admission and completion or graduation requirements are clearly defined, widely published, and easily accessible to students and the public.

### **Admission Requirements**

Montana Tech's Admissions Office manages communication of undergraduate admission requirements. This ensures accuracy and consistency of information across various modes of delivery. The [undergraduate admissions](#) webpage is accessible under the heading *Admissions and Aid* on Montana Tech's [home page](#) and on the static bar located throughout the website. Students can navigate this page to find information for [first-year](#), [transfer](#), and [international student](#) admission. Any unique program requirements, such as those for the [pre-apprentice line program](#), are outlined on program webpages. Montana Tech strives to maintain an accessible site and follows the tenets outlined in the [Website Accessibility Plan](#).

The Admissions Office also generates and distributes electronic and print publications to prospective undergraduate students, their families, high school counselors, transfer advisors, and other stakeholders. The primary publication developed for domestic audiences is the [Montana Tech Viewbook](#), which outlines admission requirements. Prospective international students are directed to reference the [International Undergraduate](#) Admissions website for their unique admissions requirements.

Undergraduate applicants may track their admission progress on their personalized [URL \(PURL\)](#). The PURL is a customized webpage that reflects an applicant's admissions status with a checklist of each student's unique requirements. The Admissions Office also uses the PURL to inform applicants about upcoming deadlines, events, and scholarship opportunities.

The [Admissions](#) subsection of the Montana Tech Catalog provides detailed information about all matters related to undergraduate admissions. These include (but are not limited to) admission standards, required items, the process for readmission, dual credit, and transfer credit policies. Additional information related to enrollment policies can be found in the [Academic Regulations and Requirements](#) subsection.

Montana Tech's Graduate School manages all communications related to graduate admissions and enrollment. Prospective students can access information about [graduate admissions](#) requirements via the website. The Graduate School Admissions page includes an Admission Credentials Checklist for domestic, international students, returning, and non-degree-seeking students. Any additional program-specific requirements are listed here as well as on program website pages such as [Industrial Hygiene Professional Track](#), [Project Engineering & Management](#), [Petroleum Engineering](#), [General Engineering: Mechanical Engineering Concentration Option](#), and [Interdisciplinary MS](#). The [Graduate School](#) portion of the Montana Tech Catalog outlines application procedures, deadlines, and general admission information.

### **Graduation Requirements**

The Montana Tech Catalog is the official guide to graduation requirements for all programs. Curriculum outlines for each program can be found under [Academic Programs](#). Any program webpages with course requirements link directly to these catalog pages to ensure accuracy and consistency. All changes to these outlines are approved by the CRC, the Grad Council (as applicable), and Faculty Senate before adjustments are made to the Catalog. The registrar sends the Catalog to department heads annually for review, after a two-week review period,



the Catalog is finalized. Once finalized, all changes must go through the campus review process for approval before implementation for the next Catalog cycle.

All students are required to meet with an advisor before registering for classes each semester to receive guidance about their major, enrolling in required courses, and their progress toward graduation. In addition, Montana Tech employs a degree audit system (DegreeWorks) for all undergraduate programs. Students can access this platform any time by logging into their secure student portal from the Montana Tech homepage. This audit allows students to monitor their progress toward their degree and identify the impacts of changing their major on graduation requirements through a 'what-if' feature.

For graduate students, the section "Creating a Degree Plan" on the [Graduate School](#) webpage helps students understand the steps necessary to complete their Montana Tech graduate degree. These steps are also included in graduate student orientation, and, as of Fall 2023, in an online course where required benchmarks are included as assignments, with deadlines managed through the course software. As the graduate programs are highly flexible and tailored to individual student needs, graduate students are encouraged to fill out a [Graduate Program Form](#), in collaboration with their primary advisor, and in consultation with the required coursework as published in the Graduate Catalog. This serves as both a navigation plan and timeline for the student, and acts as a 'memorandum of understanding' (MOU) between the student and advisor on courses that will best suit the student's individualized degree/project plan. The MOU is kept on file by the graduate school, and used only as a tool to resolve any unexpected or disputed changes in a graduate student's course progress. On the website and in the course management that handles orientation and milestones, thesis students are advised on processes by which to form their [graduate committee](#). Non-thesis and distance students are advised on requirements for their final examination on the webpage. Ph.D. students are advised on timelines for intermediate examinations (i.e. qualifying and comprehensive examinations), and program handbooks for Montana Tech's two Ph.D. programs ([Materials Science Ph.D.](#) and [Earth Science & Engineering](#)) are available to students. As students approach their final examination/defense, [thesis deadlines](#) are posted on the [Graduate School](#) website, in the [graduate school handbook](#), and personalized email reminders are sent (triggered when a student fills out a degree application (either for [M.S.](#) or for [Ph.D.](#))). Final steps to graduation are completed by a course audit by Enrollment Services at the end of the final semester, while a [checkout form](#) is used as a final check for students, advisors, and graduate school staff. The checkout form includes separate sections for on-campus versus distance graduate students.

### **Standard 1.C.5**

The institution engages in an effective system of assessment to evaluate the quality of learning in its programs. The institution recognizes the central role of faculty to establish curricula, assess student learning, and improve instructional programs.

### **Assessment of Program Learning Outcomes**

Quality of learning across programs is [accessed at the program level](#), including cross-disciplinary learning with the foundation of general education, writing, and mathematics. Departments use internal assessments of courses and sequences of courses to determine whether outcomes are being met. Department program reviews are evaluated by the deans for content, instructional approaches, assessment, and student outcome data. Benchmarks for outcomes are defined in each program and a threshold is set for the values that indicate whether the benchmarks are met, exceed, or fall below the specified value. Departments consider benchmark values that fall below the expected measure for what approaches could be taken for improvement. For example, as illustrated in the [program review for Electrical Engineering](#), each student outcome is assigned a performance indicator, metric, target level of attainment, and a scored level of attainment. Evaluation grades are defined as a range between Needs Improvement through Satisfactory. Indicators assigned a grade of Needs Improvement or Unsatisfactory are addressed with an action plan to achieve the defined outcome. Program outcomes can be found in the Montana Tech Catalog, on course syllabi, or on an MUS repository found [here](#). Similarly, course sequences are assessed for vertical integration and advancement from the 100-level through the 400-level series.

Building on the assessment cycle and process outlined in the [Mid-Cycle Evaluation](#), two faculty members representing different colleges completed the Cohort 3 NWCCU Mission Fulfillment Fellowship. Montana Tech's investment resulted from recognizing the importance and expertise of faculty in program learning assessment and the need for campus opportunities in mentoring and leadership of assessment. Part of the requirement was to complete a project based on the learning objectives and the institution's goal, to actively engage faculty in the accreditation process, specifically at the program review level. The two faculty members continue to serve as reviewers and mentors in program assessment.

In addition to internal program assessments, student learning is also assessed by external, validated metrics across disciplines. For example, chemistry courses incorporate nationally-normed [American Chemistry Society](#) examinations to assess student learning. Within engineering programs, student and graduate performance on the [Fundamentals of Engineering Exam](#) allows assessment of student's knowledge and learning across topics such as ethics, engineering economics, mathematics and statistics, materials, surveying, and fluid mechanics. Additionally, learning in the natural sciences, social sciences, humanities, mathematics, writing, reading, and critical thinking for all bachelor-level students is assessed each year by the [Educational Testing Service](#) Proficiency Profile Exam. These validated and nationally normed metrics are used by departments and colleges alongside course and sequence assessments to modify and improve curricula.

### **Faculty role in assessment, curriculum, and program review**

The campus [Curriculum Review Process](#) includes cross-discipline discussions and decisions that allow for input and representation from every department, ensuring that faculty guide the curricula. The CRC functions in an oversight and review capacity, approving all curriculum matters before sending them to the Faculty Senate for approval. This process ensures that curriculum changes from a department are coordinated with those of other departments and do not negatively impact other curricula and that academic standards are upheld. This

workflow facilitates open communication, discussion, and input from all departments in reviewing curricula.

Once reviewed, the chair of the CRC forwards the committee's academic recommendations to the [Faculty Senate](#). This group is comprised of representative faculty from all academic departments, the [Montana Bureau of Mines and Geology](#) (MBMG), the [Center for Advanced Materials Processing](#) (CAMP), and the [Montana Tech Library](#). The Faculty Senate reviews proposed curriculum requests as part of their public meetings. Each meeting is announced to the campus community through its [webpage](#), where [agendas](#) are provided at least 48 hours in advance.

### **Standard 1.C.6**

Consistent with its mission, the institution establishes and assesses, across all associate and bachelor level programs or within a General Education curriculum, institutional learning outcomes and/or core competencies. Examples of such learning outcomes and competencies include, but are not limited to, effective communication skills, global awareness, cultural sensitivity, scientific and quantitative reasoning, critical analysis and logical thinking, problem solving, and/or information literacy.

#### **General Education Outcomes**

The general education core curriculum at Montana Tech familiarizes students with the diverse knowledge embraced by the humanities/fine arts, mathematics, physical & life sciences, and social sciences. In addition to these general areas of knowledge, a communications requirement ensures that students acquire effective written and oral communication skills ([General Education Requirements](#)). Outcomes include:

- Students will be able to use writing as a means to engage in critical inquiry by exploring ideas, challenging assumptions, and reflecting on and applying the writing process.
- Students will be able to speak with clarity, accuracy, and fluency in public contexts.
- Students will be able to reason analytically and quantitatively at the algebraic level.
- Students will be able to use an understanding of the physical and natural world to identify and solve problems.
- Students will demonstrate an understanding of ethics, cultural endeavors, and legacies of world civilizations.
- Students will be able to describe the biological, social, political, and economic forces that influence human behaviors and attitudes.
- Students will be able to demonstrate the processes and proficiencies involved with creating and/or interpreting creative works.
- Students will be able to demonstrate proficient critical thinking skills

#### **Assessment Process**

The General Education Review Committee (GERC) reviews and accepts/rejects courses submitted by faculty for consideration as general education requirement courses. To be considered, the course must be taught for one semester and be approved by the CRC before it can be submitted to the GERC. The committee is a diverse committee composed of faculty from

various colleges and disciplines, staff, and administrators. The provost and registrar are ex officio members.

The Chair of the GERC completes an annual program review, with the latest review indicating that this has been accomplished for the previous five academic years ([Program Review](#)). The annual review consists of an assessment of agreed-upon institutional learning outcomes. When a performance indicator has not been met, actions and follow up details are included. As stated in the 2022-2023 review, "The evaluation process and benchmarks are set by the General Education Review Committee. The committee then reviews the General Education Program Review the following academic year to determine if action is required." Further, as part of the Program Review assessment, Montana Tech bachelor of degree students also take the [ETS Exam](#), aiding individual degree programs in assessment.

Lastly, Montana Tech participates in the MUS General Education Council established by OCHE in 2005. *"The responsibilities of the [Montana University System \(MUS\) General Education Council](#) include periodic review of the MUS Core, and approving the general education courses from each campus that satisfy the MUS Core. The Council is defined in [Board Policy 301.10](#) (section II.F)."*

### **Standard 1.C.7**

The institution uses the results of its assessment efforts to inform academic and learning-support planning and practices to continuously improve student learning outcomes.

#### **Academic Assessment**

The student learning outcomes for each program are published in Montana Tech's Catalog. For most of the Lance College of Mines and Engineering programs, the student learning outcomes follow the standard student outcomes provided by ABET (Accreditation Board for Engineering and Technology). Other accredited programs, such as nursing and business within the College of Letters, Sciences, and Professional Studies, follow similar student outcomes from their respective accreditation agencies. Accredited programs follow regularly scheduled, accreditation-specific student outcome assessment procedures. ABET-accredited programs, for example, require a minimum of a three-year assessment cycle. Each program uses the results of the assessment data for program improvement. When a weakness or deficiency is noted after assessment, each program will use the assessment data to determine methods to remediate the shortcomings. To close the loop, programs identify and inform relevant academic and learning-support entities on campus to improve the learning outcomes. Affected programs will consult with faculty from other disciplines to improve course contents and choices. In addition to accreditation-specific student learning outcome assessments, all Montana Tech programs follow two-year review cycles at the departmental, dean, and provost levels to ensure student learning outcomes are met, and assessment data are used for continuous improvement. Each program's objectives, student outcomes, and student outcome evaluations are assessed during each review period. All program reviews are posted on the Montana Tech [website](#).

Examples of assessment efforts to improve student learning outcomes in addition to program review include:

- In 2017, the mathematics department piloted a model of offering math courses with co-requisites in line with a MUS-wide initiative and Complete College America. The impetus was to provide additional support for underprepared students and remove the requirement for additional stepwise development courses that would lengthen the time to completion. The data showed that the average exam scores were ten percentage points higher for students enrolled in the co-requisite than those who were not. This co-requisite model was adopted in 2018 based on three semesters of data. The Writing program also offers lower-level courses using the co-requisite model.
- The chemistry department changed some course structures to address overly high rates of D, F and W grades (DFW), including, for example, lowering the number of high-stakes exams. These changes resulted in DFW rates of 40% - 45% dropping to the national average of 18% - 20%.
- For the graduate school, student outcomes and program objectives for each program were revised within the FY23 review cycle to implement a rubric to ensure the outcomes were assessed in detail other than a yes/no metric. The quantitative analysis of the first rubric is included in the Graduate School program review. For example, student writing was scored lower than all other student outcomes. In response, the writing seminar that all students take is being significantly revamped in the Spring of 2024 to include audience analysis and value proposition, a departure from past offerings that relied on grammar and writing style.

### **Learning Support Assessment**

Montana Tech provides numerous support mechanisms for student learning to help the programs achieve the desired learning outcomes. The [Academic Center for Excellence](#) (ACE) assists and empowers students to succeed and excel academically from day one through graduation. ACE provides students with quality tutoring and academic success coaching. Furthermore, ACE trains qualified and committed undergraduate and graduate students to deliver academic support services. Students have the option of drop-in tutoring or private appointment tutoring. Generally, the student initiates the tutoring request. However, faculty and advisors often encourage students to utilize ACE to increase the student's academic success. Each semester, all first-year students, Highlands College students, students taking MATH171 (Calculus I) or lower, and students taking CHEM143 (College Chemistry II) or lower receive 20-day satisfactory/unsatisfactory grades and 40-day midterm grades from their instructors. A student can determine their need for tutoring based on the midterm grade. The student's advisor can also discuss academic progress with the student and determine if tutoring is appropriate based on the midterm grade. ACE also provides testing accommodations for students as part of disability services. Services and support offered through ACE, Disability Services, Information Technology Helpdesk and computer labs, and TRIO Student Support Services are presented to prospective students during campus tours, formal events such as Tech Day and Orientation and integrated into the professional advisor's preregistration meetings with students.

Through the formal and informal assessment [program review](#), ACE has taken steps to improve the student experience and increase access to tutoring. The number of tutors hired has increased over the past three years (14 tutors in the Fall of 2021, 21 tutors in the Fall of 2023), including the hiring of a dedicated math tutor at Highlands College while increasing the student's rating of tutors as "good" or "great" in helpfulness and communication. In addition, ACE has implemented Navigate360 as its primary scheduling and tracking tool, moving away from TutorTrac in 2021. This allows advisors and other student support staff, who use Navigate, to see a more holistic picture of a student, including their tutoring appointments and check-ins. In addition, it has facilitated additional analytics, showing the need for tutoring appointments at specific times of day and specific points in the semester. A priority goal is to expand the use of Navigate in the coming year.

Examples of assessment efforts to improve learning support:

- Program-specific supports have been built and implemented over the past year. ACE and TRIO Student Support Services have partnered with the nursing department to deploy program-specific mentors for incoming nursing cohorts. These mentors work to tutor students in subject matter, support test preparation, and coach students in creating successful habits. This mentorship program has led to a significant increase in students passing their standardized exams in the nursing programs, including a 100% pass rate in the Pharmacology ATI.
- All first-year undergraduate engineering students take a common core for the first semester. EGEN101, for example, introduces freshman students to the different support mechanisms available on campus. Other majors have a similar first-year seminar course to introduce campus support mechanisms. Registered Montana Tech students have access to numerous computer labs throughout campus. Students also have access to our library resources, including access to other University of Montana system libraries
- The Graduate School, the Graduate School implemented substantial upgrades to its student support services and publication/communication of student processes. The graduate school website was restructured to provide a step-by-step graduate school life cycle with a comprehensive overview of steps, forms, and procedures for various programs. A 'Frequently Asked Question' section was added to respond to student concerns proactively. A Graduate Student Advisory Board was formed to support the communication of processes and provide another feedback mechanism on graduate student support. In response to the student feedback after the formation of the Board, the graduate school orientation was divided into on- and off-campus sections to support students better.

### **Standard 1.C.8**

Transfer credit and credit for prior learning is accepted according to clearly defined, widely published, and easily accessible policies that provide adequate safeguards to ensure academic quality. In accepting transfer credit, the receiving institution ensures that such credit accepted is appropriate for its programs and comparable in nature, content, academic rigor, and quality.



Credit is awarded and transferred based on definitions and policies found in the [Montana Tech Catalog](#). With respect to transfer credit specifically, Board of Regents (BOR) [Policy 301.5](#) requires the transfer of college-level credit into all Montana campuses, including Montana Tech, from any regionally accredited institution, including community colleges. As stated in the [Montana Tech Catalog](#), transfer credit is considered upon receipt of official transcripts from another post-secondary institution and Montana Tech determines the applicability of credits toward a degree. The Montana University System (MUS) implemented [a common course-numbering system](#) adopted by all the MUS campuses. This system facilitates matching courses across campuses and against degree requirements. It enables seamless credit transfers between and among the various MUS campuses.

The Montana Tech Admissions Office completes an initial review of transfer credit and will contact faculty associated with the department responsible for any courses in question. The faculty decision is saved to the student electronic record and, if approved as a direct equivalency, is built into Montana Tech's Transfer Evaluation System (TES) database serviced through CollegeSource. Once the student is accepted to the University, and all official transfer transcripts are received, the file is reviewed by Enrollment Services (Registrar staff) to conduct an official evaluation. If there is any remaining ambiguity regarding course equivalency, the Enrollment Services staff will contact faculty in the corresponding department to give an equivalency determination. Official transfer evaluations are sent to the student and advisor and are saved to the student record. Transfer credit is then entered into the student record in Banner.

General Education courses are evaluated to determine if the course meets an 80% threshold of commonality and in accordance with MUS BOR Policy [301.10](#) regarding general education requirements. This evaluation is completed using TES, source institution catalogs, and course descriptions, and syllabi (when requested). Courses are evaluated for general subject matter and can be brought in as an elective in some general education areas (i.e. courses focused on social science can be transferred to satisfy the social science general education area, courses focused on humanities and fine arts can satisfy the humanities area). General education courses that are similar but for which there is not a clear equivalency determination, general education courses for which equivalency is disputed by the student, and all major specific courses are sent for review and equivalency determination by faculty for the department that is responsible for the course(s) in question. Courses not transferred to meet specific degree requirements are transferred in as free elective credit. Academic departments will determine if any of the courses brought in as free electives can be used as a course substitution. The department head and the dean must approve substitutions for the course/degree requirement that needs accommodation.

Montana Tech also provides military and veteran students with a means of evaluating prior learning and has internal processes to ensure appropriate granting of credit for military training and courses based on [American Council of Education](#) (ACE) recommendations. For veteran and active-duty members who wish to utilize Veterans Education Benefits, Montana Tech will evaluate all previous education and training, including Joint Services Transcripts, and will

maintain records of any prior credit awarded. It is up to the discretion of Montana Tech faculty to award credit.

All credit for prior learning is reviewed by Montana Tech faculty. Standardized testing is reviewed by faculty, and established equivalency charts are posted in the [Catalog](#). Challenge Exams and Portfolio Assessments are reviewed by faculty associated with the department responsible for the course for which students seek credit.

The MUS also has a [single-admission process](#) that allows students to request a campus to send their admission information to another system campus, eliminating the need to apply to each campus separately. The approval process for course transfer is described in the [Catalog](#). When transferring from U.S. colleges:

- The student must have an academic record with a cumulative grade point average of at least 2.0 or greater on a 4.0 scale or at least a "C" average, to be eligible for full admission.
- The student may be required to complete a placement test if they have not completed college level math and/or writing within the last two years.

Montana Tech's [Admissions Office](#) provides a comprehensive guide to support transfer students. Students who intend to transfer can receive [guidance from advisors](#) on selecting the most appropriate courses in which to enroll. Advisors work with students to ensure they choose the courses that will make their transfer as smooth as possible. The University also maintains transfer agreements with other institutions to assist students with their transfer goals. For international transfer students, the Admissions Office works with the appropriate academic department to review all eligible coursework for transferability. It determines the applicability of transfer credit to specific degree program requirements.

At the graduate level, courses may be transferred in from either a recent Montana Tech undergraduate degree (through the accelerated [BS+MS program](#)) or from another University. Limits to transfer credits apply, as specified in the [Catalog](#). The proposed transfer credits are approved by both the department and the Graduate School.

### **Standard 1.C.9**

The institution's graduate programs are consistent with its mission, are in keeping with the expectations of its respective disciplines and professions, and are described through nomenclature that is appropriate to the levels of graduate and professional degrees offered. The graduate programs differ from undergraduate programs by requiring, among other things, greater: depth of study; demands on student intellectual or creative capacities; knowledge of the literature of the field; and ongoing student engagement in research, scholarship, creative expression, and/or relevant professional practice.

**Alignment with mission:** Aligned with Montana Tech's designation as a Special Focus STEM institution, the [Graduate School](#) provides opportunities for advanced study and research in science (geosciences, industrial health), engineering (general, electrical, environmental,

geological, geotechnical, mining, petroleum), or project/engineering management. Montana Tech also offers transdisciplinary graduate programs (Materials Science, Materials Science and Engineering, Ecological Restoration, Earth Science and Engineering, and Interdisciplinary Studies) that span science and engineering disciplines and encourage inter-college collaboration.

**Depth of Study:** A graduate degree at Montana Tech will assist students in achieving the following program objectives within a few years of graduation:

1. Establish or advance in their chosen profession
2. Ability to apply and integrate advanced knowledge and engage in innovative solutions in their chosen discipline.
3. Skills to perform critical functions in their chosen profession.

The application and integration of advanced knowledge (program objective #2) is the key differentiator between graduate degrees and undergraduate degrees at Montana Tech. Specifically, all graduate degrees at Montana Tech require a final product, in which the students must demonstrate, and are assessed in their attainment, of the following outcomes:

- Knowledge: Demonstrated up-to-date, advanced knowledge, skills, and understanding in the degree area.
- Integration: Blended theory with practice to integrate, problem solve, and apply advanced knowledge, skills, and understanding in the degree area.
- Communication: of technical and complex material, both orally and in written form.
- Innovation: A significant and original contribution to advance knowledge in the discipline, the tools of discovery, or a major application.

Students completing a master's program at Montana Tech will address three of the above four outcomes, while students completing a doctoral program will address all four. The product for MS thesis and Ph.D. students is a multi-semester thesis/dissertation project, including intermediate advisement and direction by a committee (Ph.D. students have intermediate qualifying and comprehensive examinations), and final assessment by committee via formal oral and written examination. The introduction of the thesis product places the student project in the context of the current state-of-the-art of the field, both motivating and outlining a gap that is to be addressed with the project. The remainder of the thesis describes the methodology used to address the problem, results, and discussion of the results, and conclusions of the work.

Non-thesis students demonstrate advanced knowledge, application, and integration of this knowledge through an extended special topics course project. Non-thesis students are typically assessed via a final written report to a committee.

Distance and course-only master's degrees require a final examination, presentation, and/or practicum to illustrate these higher-level skills. Non-thesis course-only professional practice MS students are assessed via a final product presentation, practicum, or final examination.

In all cases, a faculty committee assesses the student's ability to communicate their work (orally and/or in written format) in the context of state-of-the-art, available literature, sound methodology, analysis of results, and conclusions.

**Nomenclature:** The Graduate School offers thesis-based master's degrees, non-thesis master's degrees, research-based doctoral degrees, and graduate certificates. Specific requirements of these degrees are as follows:

***Master of Science (MS):*** This research-oriented degree is recommended to the student whose educational and professional goals make early research experience desirable. A thesis option is differentiated from a non-thesis option by the total number of required credits, the total number of required course credits, and the depth and breadth of the student product. The thesis option requires an individually written thesis based on original research. A publishable paper may be substituted for the thesis upon the committee and Graduate School approval. Alternatively, students may enroll in a non-thesis option, which substitutes the extended multi-semester project with additional course work and a shorter-term (often semester-long) project taken as a special-topics course. Both thesis and non-thesis options require examination and approval by the committee.

***Course-only Masters (Distance):*** Montana Tech offers three non-thesis course-only master's degrees, structured for online or hybrid participation to enable enrollment by adult or distance learners. The coursework is designed to encourage participative, collaborative, and applied problem-solving strategies to address modern day issues. To address the advanced learning, these options require a concentrated on-campus practicum ([Master's of Industrial Hygiene—Professional Track](#)), a final presentation (Master's, [Project Engineering & Management](#)), or a final examination ([Master's of Engineering](#)). The final practicum, presentation, or project requires students to demonstrate advanced knowledge of the discipline. Faculty committees sign off on the student product.

***Doctoral Degree programs:*** Montana Tech has two Ph.D. programs available, an Earth Science and Engineering (ESE), and Materials Science (MSCI). The latter is offered in collaboration with Montana State University. The Ph.D. degree is a research degree consisting of both classroom instruction at an advanced level and execution and completion of a research project, i.e. dissertation. The Ph.D. degrees require intermediate student assessments, including a qualifying examination and a comprehensive examination. The Ph.D. requires a minimum of 60 semester credits beyond the bachelor's degree; guidance on the number and level of course credits, thesis credits, and transfer credits (from the MS, as well as from other Universities) are specified in the [Catalog](#). In addition, ESE, as a joint science and engineering degree has a requirement that a minimum of nine courses must be in science and nine must be in engineering.

***Graduate Certificates:*** Graduate certificates at Montana Tech are typically 15-18 credit hours of post-baccalaureate study, with the specific number specified in the curriculum. Like other

graduate degrees, all courses and seminars must be at the 400-level or higher<sup>1</sup> and more than half of the course credits required for the degree must be taken at the 500-level or higher.

**Advanced Study:** All graduate degrees require a relevant undergraduate degree for admission. Many have specific coursework required for full admission to the program. Students lacking foundational undergraduate courses in their major field are generally admitted on provisional status. Any student requiring more than 15 credits of foundational courses can only be enrolled as a post-baccalaureate student. Moreover, all graduate coursework must be at the 400-level or higher. MS degrees require that 50% of coursework is at 500-level or higher, and for the Ph.D. degree, 15 (of 24) credits must be at the 500-level or above.

**Review:** The Graduate School conducts a review cycle on a two-year basis (except a three-year cycle resulting from the COVID pandemic). In the academic year 2023, the Graduate Council completed a year-long evaluation of its review process, including revision of its program educational objectives, student outcomes, and strategy by which to assess the attainment of the student outcomes. The AY23 review was completed in Summer 2023, finalized in Fall 2023, and approved via a unanimous vote of the Graduate Council.

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<sup>1</sup> There is one exception to this statement. Environmental Engineering 387 (EENV 387) is allowed for credits toward the restoration certificate.

## Standard 1.D—Student Achievement

### Standard 1.D.1

Consistent with its mission, the institution recruits and admits students with the potential to benefit from its educational programs. It orients students to ensure they understand the requirements related to their programs of study and receive timely, useful, and accurate information and advice about relevant academic requirements, including graduation and transfer policies.

Consistent with Montana Tech’s mission and designation as Montana’s only special focus science, engineering and technology University, STEM education is central to the University’s recruitment efforts. The Admissions Office manages undergraduate recruitment and supports students during the enrollment process through to matriculation. Students are admitted based on the standards set forth by the Montana Board of Regents (BOR) [Policy 301](#) and are published on the [Admissions webpage](#) for each category of applicant. The Undergraduate Recruitment Plan (Appendix A) serves as a framework for focusing time and monetary resources over an 18-month admissions cycle. Strategies to engage specific populations, including those that are under-represented, are included in the recruitment plan. The plan is reviewed annually by the Director of Admissions and the Executive Director of Admissions & Enrollment to assess effectiveness and prioritize initiatives. The Graduate School administers recruitment and admissions for post-baccalaureate credentials and also utilizes an annual recruitment/retention plan to guide their efforts (Appendix B). Graduate students are admitted following the guidelines outlined on the [Graduate School Admissions](#) webpage and [Catalog](#), consistent with BOR [Policy 301.3](#). In addition, the University developed a Strategic Enrollment Plan (SEP) (Appendix C) with campus-wide involvement that prioritized five initiatives to impact student recruitment and retention

The Admissions Office generates and distributes electronic and print publications to prospective undergraduate students, their families, high school counselors, transfer advisors, and other stakeholders. The primary publication is the [Montana Tech Viewbook](#) and supplemental materials are designed with messaging that is consistent with this document. The Admissions Office utilizes a Customer Relationship Management (CRM) platform, Liaison Enrollment Management Platform (EMP), to facilitate print and electronic communication with prospective students. These promotional materials are customizable depending on a student’s interest, providing comprehensive information about Montana Tech’s programs and services. Admissions meets annually with academic departments to ensure consistent and accurate messaging. Information about each academic program is accessible to prospective students on the [Montana Tech website](#).

The Admissions Office plans and hosts recruitment events in collaboration with various campus entities. Tech Day is a bi-annual campus open house that features experiential learning activities led by academic departments. The program includes an informational fair incorporating various offices including each academic department, Financial Aid, Disability Services, and Veterans’ Services (Appendix D). Prospective students can use the [campus visit](#)



[webpage](#) to request individual tours or meetings with the academic department(s) in which they have an interest. Highlands College coordinates with industry partners to host an annual Trades and Technology Day for Montana high school students to explore two-year degrees and certificates.

The Admissions Office maintains an extensive recruitment travel schedule that supports admissions representatives connecting with prospective students and their families as well as high school counselors, teachers, and college access advisors. Admissions representatives visit high schools, attend local, regional, and national college fairs, and have a presence at special interest events such as FIRST Robotics Competitions and other STEM related activities. The Admissions Office maintains membership in state, regional, and national admissions professional associations and organizations. These include the Montana Post Secondary Education Opportunities Council ([MPSEOC](#)), Montana Association of Collegiate Registrars and Admissions Officers ([MACRAO](#)), Pacific Northwest Association for College Admission Counseling ([PNACAC](#)), National Association for College Admission Counseling ([NACAC](#)), and American Association of Collegiate Registrars and Admissions Officers ([AACRAO](#)). Montana Tech is the annual site host for a regional college fair through the Montana Post Secondary Educational Opportunities Council (MPSEOC) that draws high school students and counselors from over 16 local high schools. The Admissions Office collaborates with Alumni Engagement to support their Recruit the Next Oredigger initiative which equips Montana Tech alumni with publications and information to share as they engage with prospective students and their families in their communities.

Similar to undergraduate recruitment, the Graduate School designs and distributes promotional materials for graduate-level programs. The Graduate School employs a proactive recruitment strategy that combines attending out of state events, advertising efforts, scholarship dollars, and campus visits. Examples include hosting a booth at the annual [Safety Conference](#) while simultaneously advertising in the journal distributed to all conference attendees, return on investment tracking, promotion of the [Chancellor's Distinguished Fellowship](#) (including a tuition waiver and living stipend), sponsoring individual campus visits for prospective graduate students, and promoting the [accelerated \(4+1\) program](#) in undergraduate classrooms across campus. A Grad School Expo is hosted annually to inform students about research and funding opportunities.

The Admissions Office is housed in Enrollment Services which reports to the Provost. The Vice Provost for Student Success & Dean of Students supervises Residence Life, the Student Union Building, New Student Orientation, the Academic Center for Excellence, first-year advising, Counseling Services, Career Services, and Outdoor Recreation. This [organizational structure](#) promotes intentional and strategic collaboration and communication across all areas of Enrollment Services, Student Affairs, and Academic Affairs, in order to support students' transition to college and their success.

Registration for new students begins the semester prior to attendance. Students may choose from in-person or virtual registration events, depending on their personal circumstances. In

both instances, the Admissions Office connects new students with a professional advisor at Montana Tech or a designated department advisor at Highlands College who will review their academic history. Transfer students who are prepared for department-specific advising (based on individual department guidelines) are referred to faculty members in their program of interest. Students are enrolled in [math](#) and [writing](#) courses appropriate for their current skill level based on ACT/SAT scores or other placement exams (ALEKS or College Success). [Transfer](#) and other [prior learning](#) credits are evaluated according to the policies outlined in the Montana Tech Catalog. Advisors provide guidance about registration, graduation requirements, and the impact of course placement on the duration of students' program of study. To ensure advising and mentoring throughout their program of study, students are unable to register for future terms without first meeting with an advisor, developing a plan, and the advisor registering the student for future terms and/or the student acquiring a registration PIN to register themselves.

The Admissions Office collaborates with Student Affairs to gather and disseminate information about mandatory orientation programming. Invitations are mailed to accepted students in addition to email campaigns (Appendix E). Students receive a schedule by mail or can consult the [orientation webpage](#) for current details.

Montana Tech's undergraduate orientation program is an immersive experience that begins a week before the first day of school. This inclusive and accessible approach is intended to limit the financial barriers that travel to 1- or 2-day summer events can present. Holistic programming incorporates various elements of the student experience including academics, exposure to campus resources, wellness, and recreational activities. Student Affairs plans orientation in collaboration with Enrollment Services (Appendix F).

A mandatory distance and on-campus graduate student orientation takes place during the first week of fall and spring semesters. Programming includes an online presentation (formed in collaboration with the Graduate School, administration, Research Office, Information Technology, and academic departments) to inform students about academic considerations such as research ethics, conflicts of interest, safety, and campus resources. Students are assigned to an online class platform intended to engage and promote tasks and/or deadlines throughout the duration of the student's degree program, in addition to review of thesis writing requirements and timeline within the graduate writing seminar course ([T.C. 5160](#)). A social event provides an opportunity for students to connect with one another, their advisor, department heads, the Chancellor, Vice Provost for Student Success & Dean of Students, as well as other staff from across campus thus beginning the mentoring and acclimation process to graduate studies. The off-campus distance orientation recording is posted to the [Graduate Student Orientation webpage](#), which also provides program details as well as links to relevant resources.

Assessment meetings are held after each orientation to solicit feedback and evaluate program effectiveness. Stakeholders from across campus, including students, are invited to participate. Feedback is incorporated into planning for the next cycle.

## Standard 1.D.2

Consistent with its mission and in the context of and in comparison, with regional and national peer institutions, the institution establishes and shares widely a set of indicators for student achievement including, but not limited to, persistence, completion, retention, and postgraduation success. Such indicators of student achievement should be disaggregated by race, ethnicity, age, gender, socioeconomic status, first generation college student, and any other institutionally meaningful categories that may help promote student achievement and close barriers to academic excellence and success (equity gaps).

Consistent with [Montana Tech's mission](#) as an institution within the Montana University System, student achievement measures are widely published with focus on the [MUS Strategic Plan Success Agenda](#) and provide disaggregated comparisons of [retention and graduation rates](#) within the state. Some of initiatives within the MUS Strategic Plan further disaggregate information with focus on equity gaps in student success and closing barriers within specific race, ethnicity, age, gender, socioeconomic status, first generation, and veterans: [American Indian and Minority Achievement & K-12 Partnerships \(AIMA\)](#), [Performance Based Funding \(PBF\)](#), [Perkins](#), and [Montana 10](#).

The [campus demographic](#), [graduation rate](#), and [student outcomes following graduation](#) are published on the campus website. Due to the small numbers in some categories, the information is suppressed for privacy consideration. Gender, race/ethnicity, age, and socioeconomic status (Pell recipients) are published on the Montana Tech [website](#) and the [MUS Fall enrollment](#) demographic dashboard. The Deans' Council utilizes institutional information published by MUS, institution, and internal Tableau reports to inform decisions. For example, Highlands College leadership, through the direction of the Dean, addresses the [graduation rates](#) gap by gender (33% Male/9% Female) of Highlands College through formal programs such as the Perkins grant. As a special focus institution, math preparedness is a continuous discussion with the Deans' Council and strategies evolve as presented in the [Mid-Cycle Evaluation](#).

Montana Tech has successfully increased the 150% bachelor's graduation rate of recent cohorts. Institutional changes implemented between the Fall 2010 and Fall 2016 cohort were related to academic programs, support structures, and admissions to Highlands and/or Montana Tech. For example, engineering student program changes related to placement in math and/or writing were assessed and revised throughout this time frame ([2014/2015](#), [2015/2016](#), [2018/2019](#)). Between Fall 2010 and [Fall 2013](#), the Foundations of Engineering & Sciences Program (FESP) supported students with an introductory algebra and/or developmental writing placement. In Fall 2014, the [Freshman Engineering Program](#) was developed with Pre-Freshman Engineering admitted to Highlands. In Fall 2015 ([FY16](#)), a professional academic advisor was added to the School of Mines and Engineering (SME), now the Lance College of Mines and Engineering. In Fall 2019, Montana Tech returned to the model of admitting students into the engineering program of interest, instead of freshman engineering. Similarly, in the Fall of 2014, Montana Tech admitted the last cohort of associate of science in nursing students and transitioned to a bachelor of science in nursing. Assessment

of processes at the institutional level are demonstrated through the [2015 CORE Retention Plan](#) and [2020 Student Success](#) team.

First-generation students have historically been tracked through the Financial Aid Office with information reported on the FAFSA. The FAFSA questions for both parents indicate the highest school completed (Middle School/Jr. High, High School, College or beyond, other/unknown). The information is disseminated to appropriate offices, such as the [Institute for Educational Opportunities](#) for TRIO grants and student support. Because the U.S. Department of Education (ED) defines first-generation as, neither parent has earned a 4-year degree before the student has turned 18, TRIO Programs require their own applications where the ED definition is explained, and the student self-identifies. Moving forward, the questions on the simplified 2024-2025 FAFSA have changed; however, this too, will not meet the TRIO definition. The Montana University System [Apply Montana application](#) has a question to collect a common definition across the system. Further discussion about the systematic collection of first-generation status will be coordinated through the MUS. As this process continues, identifying a first-generation status according to a common established definition will expand to all applicants, not only those who complete the FAFSA.

Montana Tech's Career Services office collects, compiles, and reports graduate outcomes annually, aligning with National Association of College and Employers (NACE) [standards and terminology](#). The information may be utilized by individual departments for program specific accreditation and is reported publicly on the career services [website](#) and departmental pages (example [nursing](#)). Disaggregation may be limited due to small numbers and privacy. As part of the strategic enrollment planning process, career outcomes were identified as an action plan; and, the committee continues to refine and establish collection, collaboration, and transparency of outcomes. The MUS [dashboards](#) provide disaggregation of graduates employed in Montana within increments of time after graduation, gender, Pell status, and race/ethnicity. The limitations of disaggregation by a combination of parameters hide many data pieces (i.e. engineering and gender). In general, the gap in gender salaries has narrowed; and, Pell/non-Pell have remained similar.

National peers are identified and reviewed annually, with the criteria outlined for Montana Tech ([Special Focus](#)) and Highlands College ([two-year schools](#)), by MUS based off the mission parameters in [BOR 219.1](#). As demonstrated by the IPEDS data feedback report of the peers for [Montana Tech](#) and [Highlands College](#), peers are larger schools with more ethnic and racial diversity. Montana Tech has a more significant percent of females than peers while Highlands College is opposite. Montana Tech's peers have higher entrance test scores on average; and some may be viewed as aspirational peers.

The National Survey of Student Engagement ([NSSE](#)) is administered by Montana Tech every three years. Peer institutions identified in these comparisons differ from the BOR peers because not all institutions participate in NSSE or on the same cycle as Montana Tech. Peers for NSSE comparisons include three groups of those administering the survey (1) all institutions (2) all

institutions within the Carnegie classification and (3) all public institutions in the Rocky Mountain region.

The Performance Based Funding (PBF) model of the MUS is a growth model in comparison to the previous 3-year average of the institution. This is the benchmark often used in comparison, including equity gaps. In 2019, the PBF model was [revised](#) to integrate the weighting of under-represented students (i.e. American Indians, veterans, low-income, and non-traditional students) into the allocation instead of awarding bonus points. The change was implemented in the [FY20 allocation](#). Annually, the PBF metrics are reviewed with the Montana Tech Budget Committee. Highlands College, a two-year institution, has additional metrics related to student access and success of dual enrollment, remedial success, and credit accumulation within the PBF model; and, these are also reviewed annually with Highlands leadership.

Efforts to decrease the gaps are coordinated through the [Deans' Council](#), [Executive Director of Student Success](#), [Institute for Educational Opportunities](#), and academic departments. The efforts and methods of identification, communication, and process change may differ among the groups.

For example, Highlands College did not meet the full PBF funding in FY23, FY22, and FY21. Highlands College [retention](#) is the highest of two year institutions; however, the retention and completion metrics are linked with the offering of 1 semester certificates, specifically the pre-apprentice line program. The dean of Highlands College worked with the department and identified some students who were not applying to graduate due to socioeconomic limits. Graduation applications, resources, and departmental assistance are now embedded in the program to assist students and decrease barriers. In [FY24](#), Highlands College received 100% of the eligible amount.

While Montana Tech has not received the full performance funding since FY21, the University has not seen an increase in the percentage of the cohort identified as underrepresented for several years.

<b>Montana Tech</b>	<b>Fall 2012</b>	<b>Fall 2013</b>	<b>Fall 2014</b>	<b>Fall 2015</b>	<b>Fall 2016</b>	<b>Fall 2017</b>	<b>Fall 2018</b>	<b>Fall 2019</b>	<b>Fall 2020</b>	<b>Fall 2021</b>
Cohort	402	422	440	426	328	325	381	356	331	387
% Retained	77%	81%	80%	85%	81%	80%	82%	83%	82%	81%
% of Cohort Under Represented	39%	41%	36%	31%	38%	37%	37%	35%	35%	34%
% of Under Represented Retained	69%	77%	74%	80%	78%	71%	78%	76%	72%	77%

Table 2: Montana Tech Performance Based Funding Cohort and Retention

Source: <https://www.mus.edu/data/performancefunding/dashboards/index.html>

Pell students are the largest number of underrepresented students in the population for Montana Tech, and gaps in access were identified as an area for improvement. The [Montana 10](#) project expanded to a second cohort of schools, and Montana Tech through the leadership of the [Executive Director of Student Success](#) and the [Institute for Educational Opportunities](#), with the assistance from Admissions and Financial Aid, accepted the first cohort of 35 students in the Fall of 2023 with the intent to grow to 75 students in the Spring of 2024. The expansion to 75, includes Highlands College accepting the first cohort. The Montana 10 project expands the support and opportunities, in addition to the robust [TRIO Student Support Services](#).

Highlands College	Fall 2012	Fall 2013	Fall 2014	Fall 2015	Fall 2016	Fall 2017	Fall 2018	Fall 2019	Fall 2020	Fall 2021
Cohort	215	231	206	184	188	203	176	167	155	137
% Retained	62%	63%	72%	61%	68%	68%	64%	70%	68%	69%
% of Cohort Underrepresented	71%	61%	58%	57%	61%	56%	45%	47%	47%	38%
% of Underrepresented Retained	57%	59%	69%	55%	64%	65%	56%	66%	60%	56%

Table 3: Highlands College Performance Based Funding Cohort and Retention

Source: <https://www.mus.edu/data/performancefunding/dashboards/index.html>

The dual enrollment offerings at Highlands College allows for an affordable, high-quality higher education experience while in high school, decreases barriers, and increase opportunities. For the past [three academic years](#), more than 500 high school students enroll in more than 2,800 student credit hours. The tuition rate is 50% of two-year college resident tuition with the first two courses, or up to six credits free. The [One Two Free](#) Montana University System program gives all Montana students access to college credit-bearing courses with the opportunity for a hardship scholarship beyond the first free six credits.

### Standard 1.D.3

The institution’s disaggregated indicators of student achievement should be widely published and available on the institution’s website. Such disaggregated indicators should be aligned with meaningful, institutionally identified indicators benchmarked against indicators for peer institutions at the regional and national levels and be used for continuous improvement to inform planning, decision making, and allocation of resources.

Montana Tech’s executive team identified enrollment, retention, number of certificates and degrees, and experiential learning as initial indicators of student achievement while objectives and indicators of goals were developed for the new strategic plan. The [fall Advancing Tech Forums](#), [Fast Facts](#), and campus institutional research [website](#) provide disclosure of the indicators and resources for additional information. [Enrollment](#), [retention](#), and number of [degrees](#) align with components of the Montana University System’s [Performance Based Funding Model](#). Evaluation of indicators within the National Survey of Student Engagement



(NSSE) has been incorporated into Deans' Council since 2012 in addition to Career Services [information](#).

### **Enrollment**

The allocation of eligible funds within the PBF model is based on the three-year average resident student FTE. Growth in resident student FTE is the benchmark identified to increase eligibility to funds. Disaggregation of enrollment is published on the campus website in various forms of [headcount](#) and [FTE](#) within the budget (program, gender, race/ethnicity, residency, etc.). Enrollment information is presented at the [Advancing Tech forums](#) each October. Montana Tech's investment in enrollment has continued after the Enrollment Recovery Plan in 2020 through evaluation and implementation of the Strategic Enrollment Plan (SEP). Additionally, the deans work closely with their departments to increase enrollment and adapt to the students.

For example, the name, curriculum, and number of credits for the B.S. degree in Applied Health & Safety Sciences was identified as a barrier to recruit students and prevented a universal understanding of the degree. In [January 2020](#), the name of the program was changed to a B.S. degree in Exercise and Health Science. The program has more than doubled from the Fall of [2019 to 2023](#) and an additional faculty member was added in FY24. Montana Tech received authorization in March 2020 for renovations of a nursing simulation center, Montana Board of Nursing approval to [expand](#) the program capacity, and increase staff to support the simulation center and [students](#) in the Sherry Lesar School of Nursing. The Deans monitor and adapt the academic programs and structure to support enrollment.

### **Retention**

The first-time freshman retention of Montana Tech and Highlands College in relation to the four-year/two-year [Montana University System \(MUS\) schools](#) is higher. Montana Tech retention falls below MUS designated [peer average retention](#) while Highlands retention exceeds [average designated peer retention](#). The PBF model for retention is first-time, full, and part-time freshmen and new transfer; and the benchmark is the school average for the previous three years for the total cohort and the underrepresented cohort. The PBF information is presented annually to the University Budget Committee. Dating back to the [2015 CORE Retention Plan](#) and [2020 Student Success](#) team, the requirement to support students through utilization of a case management approach to retention led to the investment and implementation of [Navigate360](#) in Spring 2021. The freshman cohorts stop out points have been documented and tracked in areas such as the [Student Achievement Measures](#) and recent participation in the [Postsecondary Data Partnership](#); however, Navigate360 allows the real time assessment of interventions to increase the [graduation rate](#) of Montana Tech and Highlands in relation to [MUS schools](#) and peers ([Montana Tech](#) and [Highlands College](#)).

### **Number of Degrees/Certificates**

The number of degrees and certificates awarded is available on the campus website by program along with disaggregation reported to IPEDS by gender, race, and ethnicity. For example, the Highlands College leadership tracks and monitored the percentage of awards to females, in

addition to the gap in graduation rate between females and males. Highlands College academic offerings have continued to adapt to career and technical education (CTE) following the [alignment plan](#) and industry needs. Through the [Perkins](#) Highlands College [grant, awareness and financial support are being](#) made to increase female student exposure and opportunities to nontraditional career paths in CTE. Highlands College plans to host Jobs Don't Have Genders for middle school girls, Empowering Women in Automotive, and Women in Welding to address gender equality across workforce industries.

The PBF model of the MUS is a growth model in comparison to the three previous years of the institution and this benchmark is often utilized in comparison for metrics identified for both Montana Tech and Highlands. The number of degree completions is 55% of the model for Montana Tech (undergraduate, underrepresented, and graduate) and 35% for Highlands College (undergraduate, underrepresented). With decline in enrollment, the number of degrees and certificates also declined; however, additional resources were allocated to the purchase of Degree Works based off the recommendation of the Executive Director of Admissions and Enrollment and the [2020 Student Success team](#). This software is utilized by advisors and students for effective and accurate degree planning based on the student's program of study and catalog year. This is a marked improvement in process from [CAPP](#) in terms of student and advisor planning for degree completion.

### **Experiential Learning**

The NSSE survey was a commitment of the Deans' Council in 2012 to administer every three years, originally as part of the Voluntary System of Accountability. In 2021 due to COVID, the survey was delayed until 2022. The Deans' Council reviews the information and shares it with their academic department heads. The percentage of Montana Tech seniors participating or planning to participate in a [High Impact Practice \(HIP\)](#), and specifically internship/field experiences, research with faculty, and culminating experience exceed the NSSE Carnegie class institutions.

While NSSE is only one tool in the measure of experiential learning with timing gaps, evaluation of spaces, equipment, research, curriculum, and club support are considerations in the resource allocation annually.

The Natural Resource Research Center (NRRC) was completed in January 2017 as a 30,000 square foot building housing engineering and science laboratories for students and research labs with 3,000 square feet for expanding research capacity. The Schweitzer Engineering Laboratories ([SEL](#)) Power Systems Labs were opened in the [Spring of 2021](#) providing space for innovation within the classroom and research for undergraduate and graduate students. Montana Tech is the only institution in the state that is a member of the SAP University Alliance. The SAP [Next-Gen Lab](#) opened on campus in the Fall of 2023, one of only thirteen NextGen Labs in the nation.

In addition to space, experiential learning is embedded into the curriculum through the MUS policy [303.1](#) with the capstone requirement and [campus curriculum review](#) process. At the

graduate level, all graduate degrees require a "product," which is a summative experiential learning endeavor. MS Option A and the doctoral programs require a multi-semester thesis, with a final examination by a committee in which the student presents and defends their thesis. Some departments allow submittal of a publishable paper in lieu of the thesis. MS Option B (non-thesis) requires a project; although, there are variations by program, these Option B projects are typically within the confines of a one semester independent study in which the student enrolls for 3-6 credit hours. Student assessment for MS Option B varies by program, either via a project grade within a course, or an oral/final examination of the product by committee.

Career Services is an integral part of the [campus experiential learning](#) prior to graduation. The campus recently changed to [DIGGERecruiting-DR 2.0](#), an online management system that connects students and graduates with employers.

### **Next Steps**

Montana Tech has reviewed the PBF model and metrics annually through the University Budget Committee since inception ([FY15 to Current](#)); and the Deans' Council reviews and disseminates the NSSE information to the departments each year administered. Moving forward, the campus will expand indicators and benchmarks through a broad campus discussion while continuing regular review of metrics to inform decision-making and resource allocation.

### **Standard 1.D.4**

The institution's processes and methodologies for collecting and analyzing indicators of student achievement are transparent and are used to inform and implement strategies and allocate resources to mitigate perceived gaps in achievement and equity.

As a member of the Montana University System (MUS), Montana Tech reports information to the system following the [Enrollment Reporting Procedures](#). The MUS produces robust [dashboards](#) displaying student achievement information by campus and system-wide. Montana Tech utilizes this information to further disseminate campus information.

The institution engages in regular and robust data analysis and shares these data across campus and publicly to make strategic decisions that support equitable student achievement. Montana Tech uses various methods to provide information and support participation in its shared governance model. University [leadership](#) is advisory and makes recommendations to the Chancellor.

The Leadership at Montana Technological University is comprised of the following teams.

[Executive Team](#) led by the Chancellor is comprised of the most senior-level administrators at the institution. The Executive Team meets weekly to advise and make recommendations to the Chancellor. All decisions support the mission, vision, and strategic plan. A meeting with the Executive Team can be scheduled upon request. All meeting agendas are set, and minutes available upon request.

[Leadership Team](#) led by the Chancellor consists of representatives from faculty, staff, and students. The team meets monthly during the academic year and members serve as conduits of communication, disseminate information, and ensure decisions fulfill the mission, vision, values, and goals of the institution's [strategic plan](#). The agenda is set and minutes available upon request. Information discussed at these meetings includes financial/budgeting, enrollment, strategic planning, accreditation, academic planning, IPEDS reporting, long-range building planning, and student learning assessment. The committee participates in healthy and vibrant campus discussions and at times will make a written recommendation to the Executive Team.

[Deans' Council](#) is led by the provost and comprised of three college deans, Vice Provost for Student Success/Dean of Students, Vice Chancellor for Research/Dean of the Graduate School, and the Executive Director of Admissions and Enrollment. The council meets biweekly and focuses on teaching, strategy, scholarly activity, policy, and issues regarding the University. When making decisions and recommendations, mission fulfillment and University goals are a priority. When setting FY24 goals, all members of the Deans' Council mapped individual professional and personal development to the Montana Tech strategic plan goal or goals. This process supports our overall strategic plan for the University. The agenda for the meeting is created by the members of the committee.

[Faculty Senate](#) promotes growth and improvement in higher education at Montana Technological University and in the state. Their goal is to open the lines of communication between faculty and administration. Senate officer positions are elected by senate members and senators are selected by their departments and included both senior and junior faculty for inclusive representation. Montana Tech's Faculty Senate Chair ensures there is representation of all academic programs and faculty in the Senate. The Faculty Senate Chair also serves on the Leadership Team. All meetings are open, [agendas](#) posted, and [minutes](#) available for review.

[Staff Senate](#) promotes continued improvement of higher education at Montana Tech and in the state of Montana and promotes stability and professional growth of Montana Tech's staff. The Staff Senate serves in an advisory role to the Chancellor and makes recommendations to help improve or change policies or practices. The senators serve as conduits of communication with other staff on campus with [minutes](#) posted.

[Budget Committee](#) is led by the Vice Chancellor of Administration and Finance and is comprised of representatives from the University's functional areas, Faculty Senate, Staff Senate, and student government. The committee concentrates on the fiscally prudent development, allocation and management of a balanced budget that aligns with the Montana Tech Strategic Plan. Montana University System data is available in the [Performance Funding Dashboards](#) and on the university system [data webpages](#), both inform and support decisions relating to improving achievement and equity. In addition, data reports are posted in the Tableau system. The college office of institutional research provides on-demand training on using this site, which is available to faculty and staff using their institutional credentials.

Below are a few examples of information, strategies, and resources that were allocated to implement change, improve student achievement, and reduce gaps.

### **Navigate**

In 2021, Montana Tech adopted the EAB student success management system Navigate (now known as Navigate360). This decision was based on extensive research and collaboration with campus partners and stakeholders including faculty, staff, and administration, and realizing a goal of the [2015 CORE retention plan](#) approved by the Faculty Senate. The goals of implementing this program were to support student success through timely and proactive outreach, supplement a holistic advising model, and build a more comprehensive advising reporting platform. Professional advisors have adopted Navigate360 and use it for outreach, record-keeping, and data collection. Further implementation is planned in Spring 2024 with faculty and staff training in [academic departments](#) and support services. EAB Navigate360 facilitates the transition from designated advisors to departmental faculty and ensures consistent mentoring across a student's program of study. Navigate360 is a third-party tool that allows advising notes and plans of study to follow the student throughout their degree plan. In addition, it serves as an effective communication tool, allowing advisors to proactively communicate and connect with students. It allows designated advisors, faculty advisors, and the student to document discussions, support tools needed, and academic plans to ensure continuity for the student.

### **Disability Services and Testing Accommodation**

Upon assessment of student service resource allocation, the institution created a [standalone Disability Services and Accessibility](#) Coordinator position. This position has served 71 students in Fall 2021, 81 in Fall 2022, and 65 in Fall of 2023. Prior to 2021, these services were delivered by on-campus mental health providers. However, allocating resources directly to this position and supporting a standalone role has supported Montana Tech students with disabilities and those who need accommodations in a much more robust way, including creating an [accommodated testing center](#) on campus. The Academic Center for Excellence supports students with documented disabilities by collaborating with instructors to provide accommodated testing for students.

### **Mental Health and Wellness**

[Mantra Health](#) supports the mental health and wellbeing of our students. The University decided to invest in and partner with Mantra Health to ensure all students have access to virtual mental healthcare, including self-care, emotional wellness, therapy, emotional support, and 24/7 crisis support. Mantra Health regularly assesses student usage, including the number of students utilizing each aspect of the service and the demographic breakdown of users. This is in addition to, not a replacement for, on-campus counseling. This initiative supports the campus goal of student success and creating a healthy vibrant campus. The University also employs one full-time clinical counselor to support student mental health and wellness. This position and Mantra Health provide comprehensive and accessible access to mental health care for Montana Tech students.

## **Equity Gaps**

As part of the MUS, underrepresented/At-risk populations are identified within performance-based funding (PBF) as American Indians, low-income students (Pell recipients), veterans, and nontraditional students (25+ years or older). While some of these groups may outperform their counterparts, increasing college access also contributes to institutional efforts to decrease equity gaps, as outlined in the [objectives](#) of PBF. The following are examples of identified equity gaps at Montana Tech as defined in PBF measures. Each example details strategies and resources that were allocated to address and reduce gaps.

## **AI/AN Students**

American Indian and Alaskan Native (AI/AN) students make up [less](#) than 5% of the student population at Montana Tech and Highlands College. For the [past 3 years](#), the average retention rate has exceeded the non-native (84% vs 79%) peers. While the population is low, Montana Tech recognizes the importance of supporting these students holistically through academic and financial resources, while also providing community and a sense of belonging. Tech continues to identify areas to expand upon current activities to support AI/AN students through an ongoing American Indian and Minority Achievement Council ([AIMA Action Plan](#)) in conjunction with the Montana University System.

Montana Tech adopted a [Land Acknowledgement](#) statement in 2022 that is read at all official campus events. It celebrates the unique culture and heritage of AI/AN students through traditional meal offerings on Indigenous People's Day. Montana Tech highlights the traditions of Native Peoples by providing opportunities for all students to participate in Indigenous Games and various other activities during Native American Heritage Month in November. Montana Tech maintains a strong partnership with the [Butte Native Wellness Center](#) to provide wellness resources to the Montana Tech AI/AN Students.

The institution honors the MUS American Indian Waiver outlined in [BOR Policy 940.13](#) for financial support to undergraduate students. Montana Tech also hosts an active student chapter of the [American Indian Science and Engineering Society](#). Additionally, the Montana Tech TRIO Student Support Services STEM program prioritizes transfer students from Montana's five Tribal College TRIO programs.

## **Montana 10**

In response to the Montana University System's data on low-income (defined as Pell-eligible or those with an EFC of <\$12,500 in the 2023-2024 academic year), student retention, persistence, and graduation, Montana Tech joined a cohort of schools offering Montana 10. This specific scholarship program offers academic, social, and financial support designed to help students succeed in college.

In the 2022-2023 academic year, individuals across multiple areas on campus collaborated to discuss the best options for implementing this program. Based on input from campus stakeholders, the program was implemented at the [four-year level](#) in the Fall of 2023.



Understanding the needs of the student body, the program will be implemented at the two-year level at the Highlands campus starting in January of 2024.

### **TRIO Programs**

[The Institute for Educational Opportunities](#) (IEO) houses five [TRIO programs](#) designed to promote and support current and potential students who are low-income, first-generation, have a documented disability, or are otherwise underrepresented throughout their path to post-secondary completion.

IEO hosts two [TRIO Talent Search](#) programs serving 1,010 students from Butte, Anaconda, Deer Lodge, Helena and East Helena. The programs serve low-income and first-generation college-bound middle and high school students in 12 target schools. These programs provide academic, career, and financial counseling to our high school and middle school participants and encourage them to graduate from high school and continue to the post-secondary school of their choice. Talent Search's primary focus is helping the students build the skills to succeed in post-secondary education.

[TRIO Upward Bound](#) and [TRIO Upward Bound Math & Science](#): 133 low-income and first-generation students from Butte, Anaconda, and Helena high schools are supported through this program with weekly educational counseling and monthly enrichment activities. 60 of those students participate in Summer Academy where they live on campus and complete high school equivalent courses, along with life skills learning, community service participation, and cultural enrichment.

Of the 1,100 students who are enrolled in STEM disciplines at Montana Tech, 49% are eligible for TRIO Student Support Services as low-income by the Federal definition ([income eligibility](#)) are first-generation and/or have a disability. These students are identified and recruited into TRIO Student Support Services STEM Program by hosting informational sessions, campus marketing, referral from academic programs, and word of mouth. [TRIO Student Support Services STEM](#) provides opportunities to current and future Montana Tech students in STEM degree fields for academic development, assists students in meeting basic college requirements, assists students with FAFSA completion, offers both in-person and online tutoring and serves to motivate students towards the successful completion of their postsecondary education. This program supports 120 students who are low-income, first-generation, and/or have a documented disability. The program goal is to increase the college retention and graduation rates of the TRIO SSS STEM participants and; therefore, directly affects the PBF of the institution.

### **Veteran Students**

Less than 5% of students enrolled self-identify as veterans or have used certified veterans' benefits. The institution prioritizes the unique needs of these students through academic, financial, and mental health support.

Montana Tech's two certifying officials assist with completing the necessary forms to access Military Transcripts and [VA education benefits](#). The Institution accepts tuition waivers through the [Montana University System](#) should students require additional financial resources. Montana Tech acknowledges that veteran students' experiences are not experiences shared with their non-service peers. Both campuses have veteran student lounges for veterans to gather, meet each other, and network. Each campus hosts orientations specific to veteran students to acquaint students with each other and the resources available. The Student Veteran Association has been revived to help connect service members and families with resources. The Veteran Student Club is further supported by a Veterans Task Force comprised of campus faculty, staff, and veteran student representatives.

In addition to support for veterans, Highlands College offers [Operation Next](#) for veterans or immediate family members. Through a partnership with the Next Frontier Advanced Manufacturing Institute (NFAMI), the program provides free welding or CNC certifications.

Montana Tech celebrates the dedication of veteran students by recognizing the students who served in the military and honor a Distinguished Student Veteran. In conjunction with Veteran's Day, the Task Force distributed pins to the student body to wear to support their veteran peers. Veteran students were highlighted by campus media on the [Montana Tech news site](#).

## **Clubs**

With changes in on-campus engagement with the COVID-19 pandemic and the recovery, the institution has had fluctuating participation and involvement in student [organizations](#). In recent years, involvement in student organizations supporting underserved populations in STEM and higher education has flourished with support from invested faculty and staff. Clubs such as the Society of Women Engineers ([SWE](#)), American Indian Science and Engineering Society ([AISES](#)), and Women in Mining (WIM) provide professional organization connections with the oversight of a faculty advisor. Other clubs, such as the Montana Tech LGBTQ2S+ club, provide support outside of an academic connection. In 2023, Montana Tech's LGBTQ2S+ campus club was re-chartered and is actively meeting. The LGBTQ2S+ campus club is a vibrant and inclusive community that welcomes all individuals. Its mission is to create a safe, supportive, and empowering space for queer students and their allies on campus, and foster a sense of belonging and promote awareness about issues facing people in this community. The club's goal is inclusion and supporting Montana Tech students and/or members of the community who identify as LGBTQ2S+ and allies as they work their way through college and life.

## **Conclusion**

Montana Technological University has a long-standing commitment to prepare leaders and advance science, technology, engineering, and math, to benefit humanity while meeting the needs of society. The institutional commitment to fulfill the unique role within the Montana University System, improve student learning and achievement, and improve institutional effectiveness has developed and adapted over the past seven years. Broad-based campus efforts through the Workgroup for Institutional Realignment for Excellence (WIRE) committee, renaming of the University, program prioritization and the alignment plan, revision of the

mission and goals, and developing the *Deliberately Distinct: Positioning Montana Tech for the Future* strategic plan, have positioned the campus for many years to come. Armed with a new mission, vision, strategic plan, name, and leadership, the University has made significant progress in student learning, achievement, and institutional effectiveness.

### **Student Learning**

Student success is the number one goal of Montana Tech's strategic plan. This was done intentionally to confirm that the University remains focused on the needs of students today and well into the future. The institution has the tools and mechanisms to ensure regular review and assessment of programs, both in academic and support services. Academic departments utilize program assessment of student learning. As noted in the Mid-Cycle Evaluation feedback, not all of our programs were at the same stage in the assessment process. Two faculty members representing different colleges completed the Cohort 3 NWCCU Mission Fulfillment Fellowship. Montana Tech's investment resulted from recognizing the importance and expertise of faculty in program learning assessment, the expertise of the selected faculty, and the need for campus opportunities in mentoring and leadership of assessment. Through the leadership of the two faculty fellows and the deans, recommendations led to improvement of assessment across the campus, including general education. Numerous academic programs are also members of national professional societies and receive accreditation by the relevant accrediting body. In addition to the aforementioned, faculty are regularly engaged with Industry and Program Advisory Boards. These Boards provide additional insight and value to the institution's programs by ensuring that current curriculum content and teaching are consistent and relevant to the needs of the industry today.

### **Student Achievement**

Montana Tech has made considerable progress in the investment and goals outlined in the 2020 Student Success team report. The Academic Center for Excellence (ACE) has established a professional advising structure to ensure and enable students to succeed and excel academically from their first day on campus until graduation. The adoption of Navigate360 provides support for students through timely and proactive outreach as well as supplemental advising to our professional staff. Navigate360 serves as an advising tool and an avenue for communication between students, advisors, and faculty. A robust first-year orientation program has been implemented to enrich the student experience and allows students to connect before classes start. The institution also realizes the complementary importance of health and well-being outside the classroom. Through investments made in Mantra Health, all students have 24/7 access to crisis support, and virtual mental healthcare, including self-care, emotional wellness, therapy, and support. These support services, along with deeply committed faculty and staff, increase students' achievements, leading to record levels of retention and successful graduates.

### **Institutional Effectiveness**

Since 2019, Montana Tech has accelerated our focus on maintaining the strength of our academic programs, enriching the student experience, sharing our story, mitigating the impact of the COVID-19 pandemic, growing our enrollment, and positioning the University for the

future through strategic planning and leadership/management opportunities. While there have been several challenges due to the declining number of high school graduates, COVID-19, economic uncertainty, and others, the institution has had considerable success and continues to work diligently to address the challenges.

The new strategic plan, *Deliberately Distinct: Positioning Montana Tech for the Future*, articulates the goals and framework for achieving the institution's mission. The draft objectives and indicators were developed to address the three goals: student success, programs of distinction, and a healthy vibrant ecosystem and align with the four initial indicators: enrollment, retention, degree completion, and experiential learning. Through a robust, broad-based campus discussion, the objectives and indicators of achievement will be finalized in the Fall of 2024. The final framework of *Deliberately Distinct: Positioning Montana Tech for the Future*, will formalize the updated definition of mission fulfillment while providing the vision for the future.

## Addendum A: Response to PRFR Findings

Type 1: Standards Substantially in Compliance but in Need of Improvement • Finding Type 1: Spring 2023 Policies, Regulations, and Financial Review - The following standards are areas substantially in compliance but where improvement is needed. (2020 Standard(s) 2.A.1;2.D.1)

### Standard 2.A.1

The institution demonstrates an effective governance structure, with a board(s) or other governing body(ies) composed predominantly of members with no contractual, employment relationship, or personal financial interest with the institution. Such members shall also possess clearly defined authority, roles, and responsibilities. Institutions that are part of a complex system with multiple boards, a centralized board, or related entities shall have, with respect to such boards, written and clearly defined contractual authority, roles, and responsibilities for all entities. In addition, authority and responsibility between the system and the institution is clearly delineated in a written contract, described on its website and in its public documents, and provides the NWCCU accredited institution with sufficient autonomy to fulfill its mission.

Team Verification: Needs Improvement

Evidence:

- Institutional governance policies and procedures Y
- System governance policies and procedures (if applicable) Y
- Multiple board governing policies and procedures (if applicable) Y
- Board's calendar for reviewing institutional and board policies and procedures N
- Bylaws and Articles of Incorporation referencing governance structure Y

Rationale:

The university meets the standard; however, it is suggested that the university either create a review calendar for the Board in regards to regular review of policies and procedures or clearly create some evidence about their internal review process. It's suggested that the EIE Year 7 team review this standard for follow-up.

**Response:** Montana Technological University largely complies with this standard and has worked extensively to address concerns related to the internal review process for policies and procedures. Montana Tech is part of the Montana University System and is subject to the [policies and procedures](#) established through the Montana Board of Regents (BOR). The BOR has established a [regular review schedule](#) for academic items that are clearly [posted online](#) and described in detail in the Montana University System Board of Regents of Higher Education Academic Affairs Procedural [Guidebook](#): Procedures and Guidelines for Academic Submissions to the Board of Regents. As an example, each campus must file an Academic Priorities and Planning Statement annually at least seven weeks prior to the July BOR Meeting. All programs listed in the official degree and program inventory, except for certificates of 29 credits or less, must be reviewed at least once every seven years ([BOR Policy 303.3](#)). The program review schedules are filed with the Office of the Commissioner of Higher Education (OCHE) and

available [online](#). Campus mission statements must be reviewed by the BOR every three years ([BOR Policy 219](#)).

In addition, there are BOR policies in place for Budget, Administration, and Audit items. For instance, approval of tuition and fees takes place once every two years, normally during the May meeting of odd numbered years ([BOR Policy 940.12.1](#)). Campus-Affiliated Foundation agreements must be renewed and approved by the Board of Regents at least every two years, and have minimal requirements ([BOR Policy 901.9](#)). All these policies are in the [Board of Regents Policy & Procedure Manual](#).

Internally, Montana Technological University went through a year-long process to update and refine the process, and create a receptacle for university-wide policies. During the 2023 Fall semester, the proposed, Montana Technological University [Formulation and Issuance of University Policies](#) policy was brought to the Executive Team, Leadership Team, Faculty Senate, Staff Senate, and ASMT for review and input, as well as to smaller groups of individuals who work closely with policies. The final version was posted online and shared with all via the Weekly Update and shared governance groups. The Leadership Team gave its final feedback electronically following the January 16, 2024 meeting. The Leadership Team members who voted, overwhelmingly recommended that the policy be approved, with one recommending two small amendments, both of which were incorporated, and one member sharing a concern that was fully considered by the Executive Team but did not lead to changes. The Executive Team reviewed the updated policy on January 23, 2024 and voted unanimously to recommend that the Chancellor approve the amended policy. The Chancellor signed off on the policy on January 30 and it became effective on February 1, 2024.

As part of this new policy, a [University Policy Index](#) has been created. Over the entirety of 2024, leadership will be working to populate the directory with all the university policies currently in effect. By December 31, 2024, all policies that the Executive Team considers to be University policies will be listed within the Index. Each University Policy within the Index is assigned to a member of the Executive Team. Each Executive Team Member is prioritizing their assigned policies to be reviewed over the next three years. By Spring 2028, all University policies will have been reviewed and be on a three-year review cycle. As seen on the Index site, policies under review will be highlighted for all to see and those with substantial reviews separated for further ease. This new process will allow anyone to access the most recent university policies at any time.

The new Formulation and Issuance of University Policies Policy and related University Policy Index fully address the concerns in the Year 6 PRFR Report, and which had already been a concern on campus as indicated by employee satisfaction surveys. This effort has been a priority for more than a year. While we expect there to be some hurdles to get the Index fully populated, the concept is strongly supported by all shared governance groups.

## Standard 2.D.1 Communication

The institution represents itself clearly, accurately, and consistently through its announcements, statements, and publications. It communicates its academic intentions, programs, and services to students and to the public and demonstrates that its academic programs can be completed in a timely fashion. It regularly reviews its publications to ensure accuracy and integrity in all representations about its mission, programs, and services.

Team Verification: Needs Improvement Evidence:

- Policies/procedures for reviewing published materials (print or websites) that assures institutional integrity N

Rationale:

The university did not meet this standard. There was a lack of evidence to any policy or procedure regarding a regular review cycle for published materials. It is suggested that the university create the framework and associated evidence before the Year 7 EIE report. It is suggested that the Year 7 EIE team loop back to this standard for review.

**Response:** In response to the Year 6 PRFR recommendation, Montana Tech has the framework and procedures listed below. Further, a policy will be added to section 1900 in the [Montana Technological University Policy Index](#). To ensure that Montana Tech consistently represents itself in a clear, concise, and accurate manner, the offices of [Marketing and Communications](#), [Admissions](#), [Enrollment Services](#), and [Student Affairs](#) cooperatively develop, distribute, and oversee all major communications conducted through electronic and print media; this includes the website, the Catalog, student handbook, all major publications, audio and video materials, and media relations. Before information is published, each office utilizes a vetting process to ensure consistency, accuracy, and alignment with the University [strategic plan](#). Each department has an established framework for the review of publications and disseminated information.

The Montana Tech Admissions Office distributes electronic and print publications to the public and prospective students and their families, high school counselors, transfer advisors, and other constituents involved in college access efforts. The primary publication distributed by the Admissions Office is the [Montana Tech Viewbook](#). Other electronic and print publications distributed by the Admissions Office represent the university in a manner consistent with the Viewbook, university website, data provided by Institutional Research, and regularly reviewed publication assets of other campus departments. Admissions publications are reviewed, updated, and published annually, and representatives from across campus contribute to updates/edits to ensure the accuracy and integrity of the representations of the University's mission, programs, and services. The Director of Admissions leads and facilitates the review process of Admissions' publications each summer and meets annually with campus representatives who have responsibility for programs and services discussed in the materials, including but not limited to chairs of each academic program, deans of each college, the dean of students, and directors in Career Services, Financial Aid, Residence Life, Registrar, and



Athletics. All statistical data is provided by and confirmed with [Institutional Research](#). Additionally, Marketing and Communications conduct a review for accuracy and consistency across all departmental materials.

The Montana Tech [Student Handbook](#) is distributed electronically to all students each semester and is also reviewed during new student orientation and residence hall floor meetings. The handbook is a comprehensive document that includes information on University policies/procedures, safety and emergency preparedness, on-campus living information, and health and wellness resources. The handbook is reviewed, updated, and published annually, and campus representatives from multiple departments contribute to updates/edits to ensure the document's integrity. The Dean of Students leads and facilitates the review process each summer prior to the start of the fall semester, and the departments that contribute and review include but are not limited to Marketing and Public Relations, Enrollment Services, Title IX, Environmental Health and Safety, Campus Security, Residence Life, and the Academic Center for Excellence (ACE).

The Registrar maintains the [Catalog](#) for Montana Tech and is the source of all available academic programs, individual program requirements, and academic policy. Within the Catalog, program requirements are clearly outlined by semester to show projected time to degree completion. Once curriculum and/or policy changes are approved, the Registrar makes changes to the Catalog, allows a two-week window for review by campus stakeholders, and publishes the new Catalog effective for the next academic year.

The Office of Marketing and Communications is the central office for precise and accurate messages related to Montana Tech and its values. They collaborate with departments and programs to ensure accuracy and compliance to produce strategic communications and ensure the University's brand is used correctly, consistently, and effectively. The Office of Marketing and Communications distributes messages through its comprehensive, newly redesigned [website](#), social media, digital newsletters, the alumni/campus magazine, MNews, and campus-wide presentations.

The University's website, specifically the [news site](#), is the foundation of its institutional communication strategy. Stories, news, and events are all posted on the website. The Office of Marketing and Communications manages day-to-day operations and works closely with departments across campus to ensure web content is up-to-date with help from Computer Technology Services (CTS). The campus Web Guidance Committee oversees policy-related issues and other major web changes and developments. The committee recommends standards to ensure an ongoing process of review of content and adherence to the standards. The Montana Tech Web Guidance Committee comprises faculty, staff, students, and administration.

### **Digital Communications**

The Office of Marketing and Communications sends all faculty and staff a weekly newsletter called the Weekly Update. The digital newsletter is designed to bring up-to-date information to faculty and staff every Monday morning during the academic year (unless Monday is a holiday).

The Update includes news, events, reminders, and tips. The newsletter is the source of communication across the entire University. The weekly newsletters can be found [here](#). In coordination with the Office of Marketing and Communications, the Chancellor's Office sends a digital newsletter, the Chancellor Check-in, out to all faculty and staff about every six weeks during the academic year. The Check-in is used to keep the campus up-to-date on news and high-level happenings. The Check-ins can be found [here](#). The Office of Marketing and Communications produces an alumni and campus magazine twice a year for alumni and friends. The 48-page publication is mailed out to approximately 16,000 alumni and friends in the US and Canada. The publication, which is overseen by an editorial board, is also produced in an online format, which can be found on the [MNews website](#).

**Social media:** The Office of Marketing and Communications is responsible for daily publishing, monitoring, and managing the University's main social media channels. The University uses the channels to communicate to various audiences, including faculty, staff, students, prospective students, parents, friends, media, and community members. The goal is to grow brand awareness, increase engagement, and inform our audiences.

Montana Tech's social media accounts managed by the University's Marketing and Communications team are:

- Facebook: @montanatech
- Instagram: @montana\_tech
- LinkedIn: @montana-tech
- YouTube: @mtechpr

### **Advancing Tech Forums**

The University holds Advancing Montana Tech forums every few months to keep the campus informed. The chancellor, along with university leadership, present on essential topics. The presentations are held in person and on Zoom for all faculty and staff to attend. The forum presentations can be found [here](#).

### **Brand Identity Standards**

The University's brand identity standards can be found on the [Montana True brand website](#).

## Addendum B: Authorization to Offer Distance Education

Montana Tech averages approximately 52 online sections per semester (30 over summer terms), some of which are part of the two fully online programs, the [Master's in Industrial Hygiene Distance Learning/Professional Track \(MS IH\)](#) and the [Master's in Project Engineering Management \(MPEM\)](#). Processes are in place to monitor and sustain online courses and ensure they are effective and of the highest quality. The curriculum for new online offerings, regardless of level, goes through the same process as any other new course or program, which ensures that Montana Tech faculty have a substantive role in its development. This process can be viewed on the [CRC \(Curriculum Review Committee\) webpage](#). In addition, all programs at Montana Tech experience regular evaluations on a 2-year cycle, and many are evaluated by an external professional body. These program reviews include online offerings, ensuring successful student learning via assessment of student learning outcomes.

The following five items address Federal requirements for online programming regarding identity, privacy, costs, interactions, and evaluation.

### Identity, Security & Privacy

#### Identity

Montana Tech ensures the student who registers in a distance education course or program is the same student who participates in and completes the course or program and receives the academic credit. Student identity is confirmed through the Banner student integration system prior to gaining access to Montana Tech's online resources and classes and to establishing password security. Authentication credentials for students are created within 24 hours of registering for classes, and all students have unique, secure usernames and passwords that allow them access to institutional resources, including, but not limited to: Office 365, Oredigger Web, Course Evaluations, MyMtech (the campus portal), and the learning management system (currently Moodle). Verification of identity for in-person or online requests follows the policy for [Identity Theft Detection, Prevention, and Mitigation](#).

Upon retrieving their username and password for the first time, students set a user-defined question and answer. Students must enroll in the password reset tool to change or retrieve a forgotten password. If they do not, their Student ID, their last name, question, answer, and date of birth are required to retrieve the information. Authentication credentials are validated via [Shibboleth](#), which interfaces with the Active Directory to provide single-sign-on capability for web applications including MyMtech, Moodle, and Oredigger Web.

In addition, online faculty have three options for secure online test taking: the [Tech Testing Center](#), [Proctorio](#), or [Moodle's Safe Exam Browser](#) (due to privacy concerns, Proctorio and Moodle Safe Exam utilize only the browser lockdown systems and do not require video observation). There are no additional verification charges, and the resources are funded through mandatory fees (technology, online, etc.) and the institution.

Ultimately, students are held accountable to the Montana Tech [Student Conduct Code \(pg. 9\)](#) and are required to show a photo ID when using the Testing Center to test either in person or online. Additional security practices beyond those discussed here vary from course to course, and from instructor to instructor.

## **Privacy**

All Montana Tech computer systems are covered by clear institutional [policies](#) and [MUS system policies](#) and procedures that protect student privacy. These policies and procedures are on the web and are accessible to employees and students. Faculty, staff, and teaching assistants must take a [FERPA](#) (Family Education Rights and Privacy Act) course before being allowed access to any student information. Students also have online access to [FERPA Information for Students](#).

## **Regular and Substantive Interaction (RSI)**

Montana Tech encourages RSI through the [Center for Academic Innovation](#) (CAI) with course design support and consultations upon request. In addition, both topic-specific and general face-to-face faculty professional development opportunities are offered by the CAI and within the departments. The CAI subscribes to multiple third-party professional development providers and advertises their opportunities via email, on the website, on the professional development calendar, and in its monthly newsletter.

To partially meet the requirements of regular and substantive interaction (RSI), the MS IH and MPEM faculty collaborate with the Graduate School to provide a new-student orientation. Courses are typically introduced through a synchronous Zoom welcome/introduction meeting; instructors provide regular feedback to students, and several faculty host live Zoom sessions throughout their courses. To ensure the standards of RSI are being met, courses are evaluated through student evaluations which are regularly reviewed by faculty, department heads, and deans. Both the capstone IH course (IH 5986) and the MPEM final exam include oral components facilitated by two or three faculty members. Finally, an exit survey is administered to all students during the last semester in both programs, and these are reviewed regularly in combination with the student evaluations and course assessments as part of continuous improvement.

The MIH Distance program is fully accredited by ABET (the last review was performed in 2022/23), and the Board of Certified Safety Professionals considers it a Qualified Academic Program. In addition, it is supported by a National Institute for Occupational Safety and Health Training Program Grant.

As part of the MUS system, Montana Tech is bound by federal guidelines for regular and substantive interaction (RSI) as set out in Federal Policies [34 CFR 600.2](#) and [34 CFR 668.43](#). In addition, MUS system online courses incorporate the guidelines of the [MUS Principles of Quality for eLearning Courses](#) which intentionally draws from best practices as identified by [Quality Matters](#)<sup>®</sup> and the [Online Learning Consortium](#), as well as [NC-SARA](#) and the [Consortium for Regional Accrediting Commission's 21st Century Distance Education Guidelines](#) (C-RAC). The

CAI has developed an online teaching Survival Guide to provide easy access to these guidelines and a process for reviewing and oversight of rigor, alignment, and consistency of outcomes across modalities. A draft of this document has been approved by the Deans' Council and is in the pipeline to be formally presented to faculty via Faculty Senate.

The [College of Letters, Sciences and Professional Studies](#) houses the Writing Program that addresses online offerings in the Writing Instructors' Guide (Appendix G) which outlines the course review, annual faculty evaluation, and course observation processes. Dual credit courses are co-managed by Highlands College and the departments within which they are housed. All dual credit courses follow institutional assessment and evaluation guidelines including mandatory use of the online student evaluation. In the fall of 2022, an online CNA course was developed as part of the dual-credit School-to-Work Foundations in Healthcare program. Collaboration on course development included the instructor, an instructional designer, CAI, and the Director of Curriculum for Highlands College. During the course development, the team used the quality assurance Excel spreadsheet provided by CAI to ensure it adhered to guidelines and best practices.

Highlands College utilizes the institutional assessment and evaluation guidelines in place when the course was developed. These courses utilize the final course evaluations and are updated as needed by the faculty based on student feedback. Any new online courses offered through Highlands College, including Interpersonal Communications, are built using the quality assurance Excel spreadsheet based on QM, OLC, and the MUS Principles of Quality provided by the CAI.

### **Additional questions from NC-SARA+**

In addition to the federal guidelines, Montana Tech applies the following from [NC-SARA 21st Century Distance Education Guidelines](#), which NWCCU Distance Education Policy states institutions "may incorporate to enhance the quality and effectiveness of distance education programs."

### **Institutional Capacity**

As part of the MUS system, Montana Tech has representation on the [OCHE eLearning advisory Committee](#). Capacity and support for eLearning are evaluated regularly and an eLearning report is shared annually with the MUS Board of Regents. This report allows the financial resources, technology infrastructure, data security, content expertise, instructional design, support for students, and assessment of, and access to information resources to be evaluated. Many of the contracts for online learning are shared through system agreements, including the Learning Management System, lecture capture software, etc., and allow for differentiation based on the scope of programming, enrollment, student body, methods of delivery, and support.

Montana Tech's online programming supports diversity, equity, and inclusion through online options that provide access to continuing education and career enhancement opportunities, dual credit options, and graduate, undergraduate, and professional certification. Faculty work directly with the [Office of Disability Services](#) to accommodate students with unique needs,

campus instructional designers are trained in accessible online course design, and [Universal Design for Learning \(UDL\)](#) is encouraged through training, instructional design support, and general information dissemination. The [testing center](#) is available for students who need special accommodations for examinations (a reader, extended time, or quiet space, for example).

Professional development and training are available to faculty, academic, technical, and student support staff through the CAI, the Office of Information Technology, and various colleges, departments, and support offices. Options are offered in multiple modalities, including face-to-face, synchronous online, webinars, and on-demand online. Topics include instructional technology (including the LMS), best practice in instructional design, pedagogy, and assessment, RSI, engagement, interaction, and materials and assessment development. Schedules are published by the CAI and by the units themselves.

The Office of Information Technology (IT) and the CAI support all learning technology used for teaching and learning. Privacy concerns are addressed as explained above. Intellectual property is explained in the Faculty/Staff Handbook.

Course developers are strongly encouraged to include all class-orientation materials in a Start Here section, or something similar. Courses that the CAI develops always include an initial “Start Here” module in their design.

Collaboration between the CAI, faculty, and other learning support offices creates a team of developers that includes subject matter experts, instructional designers, and instructors. This team works to develop and maintain online courses through evaluations, consultations, hands-on support, and professional development. As explained above, student evaluations are utilized for student feedback. These are reviewed and used to determine what, if any, revisions need to be made to maintain online quality.

Student success is supported through a combined effort between academic, technical, and student support such as ACE, online advisors, financial aid, student wellness, and IT. All are available during working hours both in-person and virtually.

Montana Tech’s distance education programs are consistent with the mission and educational objectives of the institution. Moving forward, there will be a continued and increasing focus on improvement regarding consistency and quality at all levels of online programming. The CAI works closely with all stakeholders, so there is a collaborative approach and appreciation for the differences between face-to-face and online teaching and learning.

Information on Montana Tech’s online program can be found on the [Distance Learning](#) page of the University website. This page links to other online learning pages that address [modality definitions and skills tips](#), provide links to [online courses](#) and [programs](#), and other essential information regarding the goals, requirements, and schedule of online programming.

## **Appendices: Supporting Documents**

The following documents are provided to NWCCU and not publicly available:

Appendix A: Undergraduate Recruitment Plan

Appendix B: Graduate Recruitment Retention Plan

Appendix C: Strategic Enrollment Plan

Appendix D: Sample Agenda Tech Day Fall 2023

Appendix E: Sample Communication of Orientation

Appendix F: Sample Orientation Schedule Fall 2023

Appendix G: Writing Program Instructors' Guide

Appendix H: Evidence of Compliance