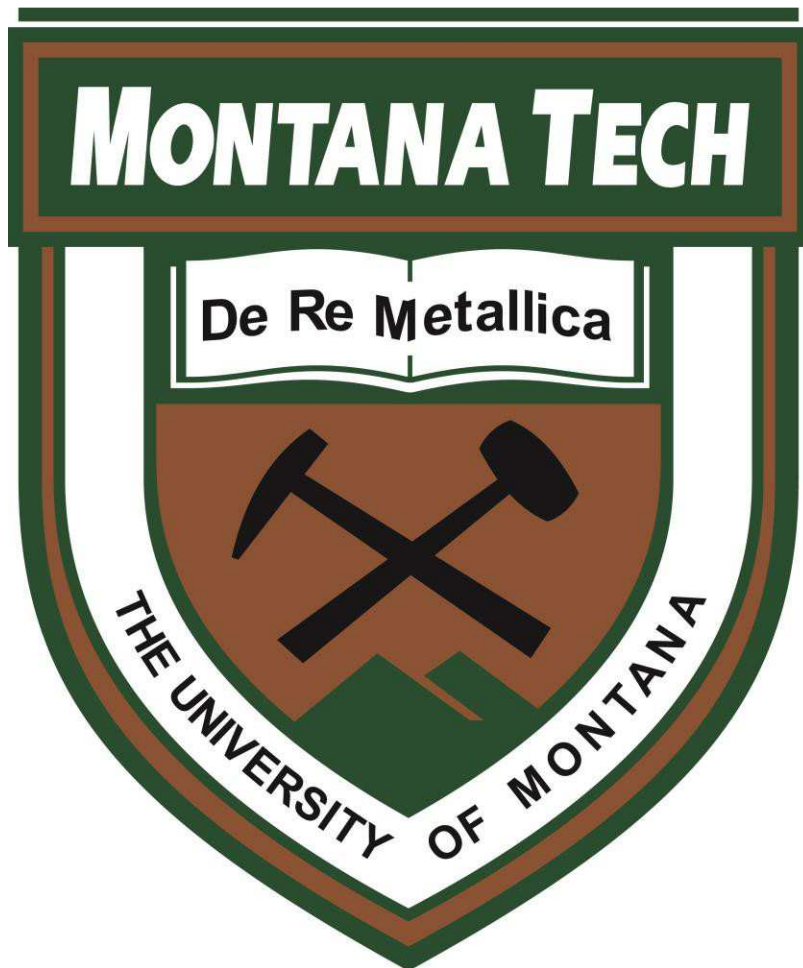


MontanaTech

Graduate Student Handbook

2017 – 2018



Montana Tech Graduate School

August 2017

Contact us at:

Montana Tech Graduate School

1300 West Park Street Butte, MT 59701

<http://www.mtech.edu/academics/gradschool>

406-496-4304

gradschool@mtech.edu

graduatedean@mtech.edu

Table of Contents

| | |
|--|----|
| ENROLLED STUDENT POLICIES | 2 |
| Minimum Enrollment Requirements..... | 2 |
| U.S. Students..... | 2 |
| International Students..... | 2 |
| Continuing Enrollment..... | 3 |
| Summer Enrollment | 3 |
| Acceptable Academic Progress..... | 3 |
| Academic Probation | 5 |
| Dismissal | 5 |
| Financial Aid and Consequences of Academic Probation | 5 |
| FINANCIAL INFORMATION..... | 6 |
| Graduate Assistantships | 6 |
| Graduate Tuition Waivers | 7 |
| Maximum Weekly Work Limit..... | 7 |
| Work Week | 7 |
| Tax Withholding..... | 8 |
| Deferment of Tuition and Fees..... | 8 |
| STUDENT PROCEDURES..... | 11 |
| Petition to the Graduate Dean | 11 |
| Responsible Conduct of Research Training | 11 |
| Graduate Program Form..... | 11 |

| | |
|---|-------------------------------------|
| Graduate Committee and Form | 12 |
| Thesis Abroad..... | 14 |
| Interdisciplinary Master of Science Students | 15 |
| Doctoral Degree Programs | 16 |
| Dissertation Committee Composition | 16 |
| Appointment of Dissertation Committee Members | 17 |
| Candidacy Examinations..... | 17 |
| Dissertation Defense | 18 |
| Requirements for Thesis and Dissertation Format and Submission..... | 21 |
| Before you begin the research for your Thesis or Dissertation..... | 21 |
| Before you begin writing your Thesis or Dissertation | 21 |
| Images | 24 |
| Electronic Media – DVDs, CD-ROMs, Videos | 24 |
| Supplemental Thesis Materials | 24 |
| Requirements for non-Thesis Project, Report, and Publishable Paper Submission | 25 |
| Dissertation Defense Requirements | Error! Bookmark not defined. |
| Exceptions | 23 |
| GRADUATION PROCEDURES..... | 26 |
| Degree Requirements | 26 |
| Application for Degree | 26 |
| Check-Out Form..... | 27 |
| Commencement..... | 27 |
| Delayed Completion..... | 28 |

| | |
|---|----|
| Table 2. GRADUATE SCHOOL TIMELINE..... | 29 |
| GRADUATE SCHOOL FORMS..... | 30 |
| LIBRARY INFORMATION..... | 32 |
| Research Help..... | 32 |
| Library Services | 32 |
| Interlibrary Loan | 32 |
| Databases and Indexes | 33 |
| Style Guides | 33 |
| Special Collections | 33 |
| Federal Government Documents..... | 33 |
| State & International Government Documents | 33 |
| Patents & Trademarks | 34 |
| Montana Superfund Documents..... | 34 |
| Master’s Thesis Format and Submission Requirements | 34 |
| Digital Commons | 34 |
| PERSONAL SAFETY | 32 |
| Sexual Assault & Harassment | 36 |
| Equal Opportunity Employment, Affirmative Action, & Title IX..... | 37 |
| HAZARDOUS MATERIALS INFORMATION..... | 39 |
| Purpose | 39 |
| Introduction | 39 |
| Definitions..... | 39 |
| Regulatory Jurisdiction..... | 40 |

| | |
|--|----|
| Responsibilities | 40 |
| Procedures for Handling Hazardous Substances and Hazardous Waste | 42 |
| Chemical Management System | 42 |
| Disposal Costs and Waste Minimization | 43 |
| Sewer Discharge and Landfill | 44 |
| Safety Data Sheets (SDS)..... | 44 |
| Labeling of Chemical Containers..... | 44 |
| Labeling of Hazardous Waste Containers..... | 46 |
| Log Records | 46 |
| Storage of Chemicals and Hazardous Waste..... | 46 |
| Satellite Waste Containers | 48 |
| Fume Hood Use..... | 48 |
| Operating Instructions for Fume Hood | 48 |
| EMERGENCY RESPONSE INFORMATION | 51 |
| Accident Reporting/Investigation..... | 52 |
| Montana Tech Emergency Plan Instructions..... | 54 |
| What You Need to Know Now | 54 |
| Active Shooter..... | 54 |
| Bomb Threat..... | 54 |
| Earthquake..... | 54 |
| Fire | 54 |
| Gunman/Terrorist Event/Violence | 55 |
| Hazardous Materials Incident..... | 55 |

| | |
|--|----|
| Hostage Situation | 55 |
| Medical Emergency or Physical Injury | 55 |
| Evacuation Procedures | 55 |
| Lockdown Procedures | 56 |
| Shelter-in-Place Procedures | 56 |
| Using Orediggerweb – Instructions for Students | 57 |
| Login | 57 |
| Main Menu | 58 |
| Student Services & Financial Aid Menu | 58 |
| Personal Information Menu | 58 |
| Exit | 58 |
| CAMPUS TECHNOLOGY SERVICES..... | 59 |
| BUSINESS OFFICE - Montana Tech Business Services | 61 |
| General Information | 61 |
| Services Provided | 61 |
| Business Office Web Page | 61 |
| Fee Payment | 61 |
| Registration..... | 62 |

Welcome to Montana Tech's Graduate School

In the Graduate School Handbook, you will find information about the policy and procedures for enrolled students, along with links to related forms. The Graduate School is focused on helping you make your time at Montana Tech educational, enjoyable and valuable for your academic and professional growth. We welcome your feedback.

GRADUATE STUDENT POLICIES AND PROCEDURES

ENROLLED STUDENT POLICIES

If you have questions, please inquire of the Graduate School Office for clarification

Minimum Enrollment Requirements

U.S. Students

A student who has been admitted to the Graduate School must be registered on a continuing basis for a minimum of 3 credit hours of graduate courses (4000 and above) during the Fall and Spring semesters of the academic year, whether the student is in residence, off-campus, or pursuing a degree on a part-time basis. Registration will not be allowed after the official "close of registration" (10 days after the first day of class).

Graduate Students are required to enroll for a minimum of 3 credit hours per term until all required coursework, seminars, and thesis credits are satisfactorily completed. In the final semester, a student may enroll for 1 credit hour for the purpose of thesis defense, publishable paper presentation, or final examination if all other conditions for graduation have been met (coursework, seminar, and thesis credits completed)

International Students

International students on an I-20 visa must be enrolled for a minimum of 9 credit hours of graduate courses (400 level and above) during the Fall and Spring semesters of an academic year to remain in valid Visa status. Exceptions may be made only during the final semester if less than 9 credit hours are needed to complete degree requirements. This enrollment requirement supersedes all other requirements, such as those listed for financial assistance. Please direct questions to the Student Life Office.

Continuing Enrollment

Continuing enrollment during each semester of the regular academic year (Fall and Spring) is required to remain in the Graduate School. If registration is allowed to lapse, the Graduate School reserves the right to terminate the student's Graduate School admission. Students desiring to take a break in their studies should submit a "[Request for Leave of Absence](#)" and pay the fee to keep library and email access during the terms of absence. The maximum duration of a Leave of Absence is one calendar year. Should a break of attendance occur, other than for an approved leave of absence, please contact the Graduate School Office to obtain a Returning Student Application.

Summer Enrollment

A minimum registration for 3 credit hours is required during the summer, if you are using departmental or institutional resources in the pursuit of your studies, such as research, thesis finalization, and/or thesis defense or publishable paper presentation, and have not previously completed all degree requirements. If all other requirements have been met, 1 credit enrollment is required to defend your thesis or dissertation, present your project, or complete the final examination in a non-thesis option.

Acceptable Academic Progress

All graduate students are required to maintain at least a 3.00 cumulative grade point average (CGPA) for graduate level courses (400 and 500 level). A 3.00 CGPA minimum for coursework and thesis is required for graduation. Any course listed in the major or minor (or supporting program) in which a grade lower than a "C" has been received must be repeated.

The Montana Tech Graduate School does not allow any credits taken at the 300 level or below to count in the Graduate level GPA or to be used as credits toward graduation requirements

Graduate students taking undergraduate-level courses during their graduate career, either for deficiencies, prerequisites, or personal interest, will register in the courses. During the term, all courses will be classified as graduate (GR) courses, based on the student's classification as a graduate student. After the end of the term when grades are posted for that semester, all courses taken by graduate students that are below the 400 level will be updated to the Post Baccalaureate (UP) level, and this updating will remove them from inclusion in the calculation of the graduate school GPA. Graduate GPA and post baccalaureate GPA are separately calculated, and they show on different pages of the official transcript.

All courses at the 400 level or above taken during a student's graduate career will be calculated in the Graduate level GPA. Grades earned in these courses are included in the Graduate level GPA, whether or not they apply to the student's graduate program degree requirements. No courses at the 400 or higher level can be removed from the graduate transcript and GPA calculation without the advance written approval of both the Registrar and Dean of Graduate Studies. Audited courses show on the transcript, but they do not receive a grade and are not included in the GPA calculation.

Academic Probation

Continued enrollment in the Montana Tech Graduate School requires the maintenance of a 3.00 cumulative grade point average (CGPA) for graduate level courses and evidence of academic progress toward the student's degree objectives as defined by the student's Program Form. Failure of the student to achieve either of these requirements will result in academic probation and can result in ineligibility for financial assistance and eventual dismissal from the Graduate School. A student on academic probation must achieve a term GPA of at least 3.00. The student will remain on probation until the CBPA equals or exceeds 3.00. The student may not exceed the maximum of one calendar year of probation and may be suspended from Graduate School if this limit is surpassed.

Financial Aid and Consequences of Academic Probation

Graduate Teaching Assistantships, Graduate Research Assistantships, Tuition Waivers, and federal and state funds may be affected by probationary status at the discretion of the Department Chair.

Suspension Policy

Any student whose cumulative graduate level grade-point average is less than 3.0 ("B") at the end of the semester of probation may be suspended from the Graduate School. A student who is suspended from graduate standing may continue to take graduate courses as a non-degree student. Reconsideration for graduate admission may be requested after one or more semesters in non-degree status by reapplying for admission. See ["Former Student Application Procedures"](#) for details.

FINANCIAL INFORMATION

Graduate Assistantships

Montana Tech has available a limited number of competitively awarded Graduate Teaching Assistantships (GTA) and Graduate Research Assistantships (GRA). The GTA stipends for master's students and for Ph.D. students are set by the University. The stipend level applies to GTA/GRA appointments of 20 hours per week. Lesser appointments receive a proportional stipend. The minimum GRA stipend level is equal to the GTA stipend. GRA stipends may be higher, depending on the responsibilities of the appointment, the level of the student, and the budget available in the funding source (typically a research grant). Students must be enrolled in at least 6 credit hours during spring and fall terms, to be eligible for an assistantship that term. During the final term of the program, a lesser enrollment can be allowed, provided the student is taking enough credits to complete the degree requirements that term. No student may have an assistantship during more than one "final term" with fewer than 6 credit hours.

In no case may a student accept a combination of GTA/GRA appointments and hourly work that exceeds 20 hours per week (when classes are in session) or 40 hours per week (between terms or in the summer). Students who have not completed their degrees and who are enrolled for the following fall may receive GTA/GRA appointment(s) during the summer period (May 16 to August 15) for up to 40 hours per week, if they are registered for 3 or fewer credits during the summer. Students registered for 4 or more credits are limited to a GTA/GRA appointment of 20 hours per week, during the weeks their classes are meeting.

For a GTA or GRA, no graduate student may be paid less than the current GTA rate of \$5,000 per semester for a 20 hour-per-week assignment. The amount would be pro-rated for an assignment of fewer hours per week. The minimum pay for other work is the prevailing minimum wage. Graduate assistantships are not subject to overtime pay. The GRA/GTA stipend level for Ph.D. students is typically higher than the stipend level for master's students.

Graduate Tuition Waivers

Resident and non-resident tuition may be waived for qualified graduate students. Fees are the responsibility of the student. Graduate students applying for tuition waivers may do so by checking the appropriate box on the financial award form which accompanies the application form. Eligibility to continue these awards is determined by the Department and is based upon the following criteria: satisfactory progress towards the degree, maintaining at least a 3.0 Grade Point Average, and continued registration for at least 6 credits at the 400-500 level for the duration of these awards. Contact the Graduate School Office for further information.

Maximum Weekly Work Limit

Work Week

The maximum work week is 20 hours when classes are in session during Spring and Fall terms. Graduate students are encouraged to balance their workloads with the demands of their classroom and research schedules. Most students find that 20 hours/week represents a realistic balance between these demands. International students are limited to 20 hours of work per week during the academic year, with no exceptions.

Permission to work up to 25 hours per week as a GRA/GTA or in combination with other work must be approved in advance by the Graduate Dean and by the Vice Chancellor for Administration & Finance. Approval is not automatic, and an assistantship overload can only be granted if the student has completed at least 16 credits, has no "Incompletes," has a cumulative GPA of 3.70 or above, and is not enrolled in more than 10 credit hours that term. Under no circumstances may any combination of GTA assignments exceed 20 hours per week, though a combination GTA/GRA may do so.

Tax Withholding

All awards with work requirements may be taxable, including GTAs and GRAs. Tuition waivers are not taxed. Detailed tax questions must be directed to a personal accountant or other tax professional.

Deferment of Tuition and Fees

A summary of the deferment policy is below. Please see the Montana Tech catalog for complete policy details. Health Insurance is not deferrable.

A deferred fee payment plan is authorized, provided that: (a) at least 1/3 of the total is paid two weeks before the 1st day of class; (b) 2/3 is paid within 30 days of the 1st day of class and (c) the full amount is paid within 60 days of the 1st day of class.

International Graduate students are eligible for the deferred payment plan provided that:

- (a): the student is enrolled as a full-time student taking a minimum of 9 credits;
- (b) the student does not owe a debt to the University;
- (c) the student does not have a previous record of nonpayment; and
- (d) at least 1/3 of the total is paid 2 weeks before the 1st day of class; 2/3 is paid within 30 days of the 1st day of class and the full amount is paid within 60 days of the 1st day of class.

An administrative charge of \$30.00 is levied each semester when a student elects to defer payments and an additional \$40.00 is assessed for late payments. Direct questions to the Business Office.

TABLE I: GRADUATE STUDENT FINANCIAL AWARD INFORMATION

| TYPE | VALUE | WEEKLY WORK REQUIREMENTS | REGISTRATION REQUIREMENTS | PAYMENT METHOD | PROCESS/PROCEDURE | AWARDED BY |
|--|--|--|--|---|--|--|
| Graduate Tuition Waiver (In-State or Resident) | Resident Tuition May be awarded to Non- Resident students, but will pay only Resident Tuition Does not pay Non-Resident tuition Fees or Health Insurance | None | FALL/SPRING: 6 credits at 400 or 500 level *5 Yr MS Students in 5th Yr: 12 credits with 6 at 400-500 level SUMMER: Not Awarded | Credited to student's account | Sign Award Letter & return letter to Graduate School See Business Office to pay remainder of fees. | Department Chair Notification by Graduate School |
| Graduate Tuition Waiver (Out-of-State or Non- Resident) | Non-Resident Tuition Does pay Non-Resident tuition Will not pay for Health Insurance Does not pay Resident Tuition amount or fees | None | FALL/SPRING: 6 credits at 400 or 500 level *5 Yr MS Students in 5th Yr: 12 credits with 6 at 400-500 level SUMMER: Not Awarded | Credited to student's account | Sign Award Letter & return letter to Graduate School See Business Office to pay remainder of fees. | Department Chair Notification by Graduate School |
| Fees | Varies by Award Minimum Value: • Registration and Resident Incidental Fees and/or • Non-Resident Incidental Fees Maximum Value: Registration, Incidental, Non-Resident, & Miscellaneous Fees Will not pay for Health Insurance | None | FALL/SPRING: 6 credits at 400 or 500 level SUMMER: Dept Discretion | Credited to student's account | See awarding Faculty member to have payment account set up. See Business Office to pay remainder of fees. | Faculty |
| Graduate Teaching Assistantship (GTA) | \$10,000 per Academic Year for 20- hours per week assignment for MS students \$14,400 per Academic Year for 20-hours per week assignment for PhD students | Depends on Award A full award requires 20 hours/work per week for Fall and Spring terms | FALL/SPRING: 6 credits at 400 or 500 level *5 Yr MS Students in 5th Yr: 12 credits with 6 at 400-500 level SUMMER: Not Awarded | See Pay Schedule Payment Begins: FALL: September SPRING: January | Sign Award Letter & return letter to Graduate School Submit completed paperwork to Student Employment in Enrollment Services Office before you begin working | Department Chair Notification by Graduate School |
| Graduate Research Assistantship (GRA) | \$10,000 Minimum per Academic Year for 20-hours per week assignment | Varies | FALL/SPRING: 6 credits at 400 or 500 level SUMMER: 0 credits, but must be registered for at least 6 credits in the following fall. | See Pay Schedule Payment Begins: FALL: September SPRING: January | See Awarding Faculty Submit completed paperwork to Student Employment in Enrollment Services Office before you begin working | Faculty PI |
| Hourly Position | Varies | Varies | FALL/SPRING: 9 credits SUMMER: 0 credits | Once per month See Pay Schedule | Submit completed paperwork to Student Employment in Enrollment Services Office before you begin working. See Employer | Varies |
| Federal Financial Aid | Varies | None | FALL/SPRING: Full Time: 9 credits 1/2 Time: 6 credits minimum SUMMER: 6 credits minimum | See Financial Aid | See Enrollment Processing Office Must maintain 3.0 GPA | Enrollment Processing Office |
| TARA Waiver | Non-Resident Tuition Does pay Non-Resident Fees Will not pay for Health Insurance Does not pay Resident Tuition | Students must be non-resident with GRA/GTA stipend of ≥ \$4000 per semester | FALL/SPRING: 6 credits at 400 or 500 level *5 Yr MS Students in 5th Yr: 12 credits with 6 at 400-500 level SUMMER: 3 credits | Credited to student's account | Automatically awarded if qualified | Board of Regents Policy 940.31 |

* 5th year MS student means student in 5-year BS/MS program with 30 or fewer credits remaining to complete both degrees

STUDENT PROCEDURES

Petition to the Graduate Dean

Montana Tech has a mechanism whereby graduate students can appeal to the graduate dean for an exemption, exception, or waiver to many of the general policies or procedures involved in graduate study. A student seeking an exemption, exception or waiver to any academic policy should complete and submit the [Petition to Graduate Dean form](#), with all signatures, at least two weeks prior to the date that the exception is needed. This process does not apply to either financial matters or curriculum matters for which the Program faculty and/or the Graduate Committee are responsible.

Responsible Conduct of Research Training

For most graduate students, research is an important part of the master's or doctoral program. Montana Tech requires students who will be doing research to attend a training workshop on the Responsible Conduct of Research. The training workshop will be offered every semester as part of the New Graduate Student Orientation and at least one other time. Graduate students should sign up for and attend this training workshop as early as possible in the degree program. Students in programs that do not involve research are not required to take this training.

Graduate Program Form

By the **end of your second semester or during the semester in which you would complete your 15th credit**, you should submit the [Graduate Program form](#) to the Graduate School. This form includes the courses you and your advisor have determined will comprise your graduate program of study. It also indicates your choice of **Option A**: thesis or publishable paper (requires approval of Department) or **Option B**: non-thesis option; a 50-word abstract of your thesis, project, or direction of program; and approval

signatures by you, your advisor and/or chair, the Environmental Health and Safety Director, the Graduate Dean, and others, as applicable.

Graduate Committee and Form

The Graduate Committee should be appointed **by the end of the second semester of graduate study or during the semester in which you will complete your 15th credit**. The committee must be proposed and approved using the [Graduate Committee Appointment form](#). For master's students, the committee consists of at least three members: two members from your major program and one member outside your program and department. Some programs require additional members. You recruit these members and ask them to serve (one could be from a minor program (if applicable)). A member outside your department will be appointed by the Graduate Dean, and you and your chair are encouraged to nominate or recommend individuals to serve in this role. The chair of your committee is typically your advisor, who must be designated on the form.

In those cases where the student elects to pursue a research project outside the home department, the Chair of the Graduate Committee may be chosen from the department hosting the research project, and a graduate advisor must be chosen from the student's home department/program.

This advisor may serve as Co-Chair of the Graduate Committee. Graduate Committee members typically have terminal degrees; for master's students, a minority of the committee could have non-terminal master's degrees. The appointment of members with lesser credentials is subject to review and approval by the department chair and the Graduate Dean.

Doctoral students must have a graduate committee of at least five members: three would be in the student's program or department, one would be from outside the program/department, and one would be from outside Montana Tech. The process of finding or nominating members and establishing the committee is identical to that for master's students. The Graduate Dean approves the Committee membership. Doctoral students should establish

their Graduate Committees prior to the end of their second semester (or prior to completing 20 credits, for part- time students).

In situations where the Graduate Committee membership must change, due to changes in the thesis/dissertation, interests/goals of the student, or the non-availability of members, the appointment and approval of the new committee requires the same form and the same approvals as the appointment of the original committee. Direct any questions about the Graduate Committee to your Advisor or to the Graduate School. You are encouraged to request and establish the Graduate Committee as early as possible, as this committee provides important advice and guidance and can help you complete your degree program efficiently.

Thesis Abroad

International experiences can be an extraordinarily enriching part of graduate study. To encourage and assist graduate students with opportunities to conduct their theses or parts thereof abroad, Montana Tech has a Thesis Abroad program. Through this program, funding up to \$5,000 per student can be provided to assist with the additional expenses of travel and graduate study in a foreign country.

To apply, an interested student should coordinate with his/her committee and complete and submit the [Thesis-Abroad Application form](#). The typical duration would be one semester, late in the student's degree program and after all or most coursework is complete. Subject to approval of the student's committee, a longer visit can be accommodated, but the maximum award, regardless of duration, is \$5,000. The cost would typically be shared 50/50 by the Graduate School and the student's department.

The student must be registered at Montana Tech for the study abroad term and must be in academic good standing to be eligible.

Interdisciplinary Master of Science Students

Because of the unusual nature of this degree program, the IMS has several additional admission and program conditions. Each student needs to establish a program committee prior to admission to Montana Tech and the program. The student must seek out and identify a Program Committee of at least 3 university faculty members from at least two different academic departments, who are willing to serve. At least one committee member must be from a Master's-Degree-granting department of Montana Tech. The Chair of the Program Committee does not have to be from the Master's Degree granting department. Each discipline in the proposed interdisciplinary program must be represented on the Program Committee. The student's Graduate Committee would consist of these members augmented by the outside member appointed by the Graduate Dean. The student and proposed advisor are encouraged to suggest or nominate individuals for the outside-member role to the Graduate Dean. The [same form](#) is used to appoint the Graduate Committee for an IMS student as is used for an established program.

The Program Committee is the student's surrogate department and will meet frequently with the student to assist in keeping the educational goals in order. The student must take responsibility for convening the committee and for informing the Graduate School of any changes in the academic program using the [Amended Program Form](#). Direct questions to your Advisor, your Program Committee, or the Graduate School.

Doctoral Degree Programs

Montana Tech's doctoral degree programs are limited to Ph.D. offerings: a collaborative Ph.D. in materials science and an individualized interdisciplinary Ph.D. officially granted through the University of Montana. These programs require passage of a discipline-specific qualifying examination, a discipline- and topic-specific candidacy examination, some coursework, and completion and oral defense of a dissertation describing the original and significant research contributions of the Ph.D. candidate.

Dissertation Committee Composition

The dissertation committee shall be comprised of a minimum of five (5) voting members as follows:

1. A qualified Montana Tech faculty member from the program or unit granting the degree, who shall serve as chair;
2. A second qualified Montana Tech faculty member or adjunct from the program or unit granting the degree;
3. A third qualified Montana Tech faculty member or adjunct from the program or unit granting the degree, or from a cooperating program or unit;
4. A fourth qualified Montana Tech faculty member, not from the program or unit, who represents the Graduate School.
5. A fifth voting member with any suitable affiliation and expertise. For the collaborative Materials Science Ph.D. program, the fifth member must be a qualified faculty member associated with the Materials Science Ph.D. program and affiliated with either Montana State University or the University of Montana.

Typically qualified members of dissertation committees are individuals with an earned doctorate. *Emeritus* faculty are eligible to serve on dissertation committees.

Appointment of Dissertation Committee Members

Committee members shall be chosen by the student in consultation with his or her academic advisor, and the student shall forward the nominations to the dean of the Graduate School for approval. The *Graduate Committee Appointment Form* is to be used to designate the committee, and to document approval by the student, advisor, program/department chairperson, and graduate dean.

Candidacy Examinations

Ideally during the second year of the doctoral program, prior to the start of the dissertation research, and at least one (1) semester before the dissertation defense, the student will complete the Candidacy Examination. The Candidacy Examination will consist of at least (1) a written research proposal, describing the proposed dissertation research, and (2) an oral examination that can cover any relevant topics and the dissertation research plans. Doctoral programs are free to include additional components of the Candidacy Examination, provided those components are described in their program materials and that all candidates are required to experience all components.

- The examining committee, is typically the same as the student's dissertation committee. Any exceptions must be justified, proposed to, and approved by the graduate dean (for example, to substitute for a dissertation committee member on sabbatical during the term of the Candidacy Examination).
- The Candidacy Examination must be announced to Program Faculty, who may attend the examination and ask questions on recognition by the chair.
- The committee, voting privately, may pass the student with one (1) negative vote for a committee consisting of five (5) members or not

more than 25% negative votes for a committee consisting of more than five (5) members.

- In case of failure, one (1) repeat examination before the same committee is allowed. In case of two failures, the student will not be allowed to continue to the dissertation phase of the doctoral program, but will be allowed to complete a master's degree.

Dissertation Defense

The Dissertation Defense is an oral examination before the dissertation committee, in which the student presents and defends the dissertation and may be asked questions dealing primarily with the dissertation and its relationship to the student's field of study. The presentation portion of the Defense is open to the public. Below are the policies and procedures related to the dissertation defense:

- **Deadlines:** The last day to defend a dissertation is on or before the last day of regular scheduled classes of the academic term the student intends to graduate.
- **Notification of Defense Date:** The candidate must coordinate and schedule the dissertation defense presentation/exam. Once scheduled, the candidate must notify the graduate school program manager of the date, time, location, and title of the defense no less than two (2) weeks prior to the dissertation defense. The graduate school will advertise the defense presentation/exam.
- **Minimum Registration:** The candidate must be registered for a minimum of one (1) credit hour of dissertation research in the academic term the student intends to defend the dissertation and graduate.
- **Pre-Defense Committee Meeting:** Each member of the graduate committee must be given a minimum of fifteen (15) business days prior to the defense date to read and review the dissertation. At least one (1) week prior to the examination, the committee will meet briefly to determine if the dissertation is ready for defense. This meeting can occur face-to-face or through electronic communication.
 - If there is one negative vote, the student's adviser and the Graduate Dean may elect to proceed with the Defense.

- If there are two or more negative votes, the defense will be indefinitely postponed.
- Defense Presentation/Examination: The examination is open to the public; anyone may ask questions on recognition by the chair. After the presentation and questions by members of the public, the chair will ask everyone except the student and Dissertation Committee members to leave. The Dissertation Committee may ask the student additional questions during the closed session, and then will ask the student to leave, so that the committee, meeting privately, may discuss and vote on whether the student passes the Defense.
- Defense Evaluation:
 - The student will pass if the dissertation is accepted (either as it stands or pending minor revisions) with only one negative vote. If the committee contains greater than five (5) members, 75% of the committee must vote in favor of passing the student.
 - If there are two or more negative votes on a committee of five (5) members (for committees greater than five (5) members, more than 25% members voting negatively), the committee may schedule and conduct a second and final Dissertation Defense no sooner than two (2) months after the initial defense. During that time, the candidate will be asked to make whatever changes are necessary in the dissertation and to remedy whatever deficiencies were identified during the presentation and questions.
- Failed Defense: The candidate is allowed two (2) total attempts to pass the defense. At least two (2) months must elapse before the second (2nd) attempt takes place. Failure to pass the second (2nd) attempt will result in the termination of graduate study and dismissal from the academic program. Candidates who are dismissed from the program due to failure to pass the defense are ineligible to reapply to the same degree program.
- Reporting the Results: The graduate committee and the department head are responsible for providing written notice of the results of the defense to the candidate and to the Graduate School no later than five (5) business days after the defense is held.

- Invalid Defense: A dissertation defense held in the absence of the candidate's graduate committee chair or graduate representative or any other required representative will be considered invalid and the defense will have to be rescheduled.
- Age of Defense: The dissertation defense must be conducted no later than ten (10) years after matriculation into the doctoral program.

Requirements for Thesis and Dissertation Format and Submission

The Thesis and Dissertation Templates provide the required formats that must be followed when preparing your thesis or dissertation for publication. **READ THE APPLICABLE ONE CAREFULLY.** If you have *any* questions regarding these requirements, consult with your Committee Chair, a member of your Committee, and the E-Thesis Manager.

Before you begin the research for your Thesis or Dissertation
You are required to meet with your Committee Chair about your Thesis or Dissertation topic. Some programs require you to present the topic and research plan before you start the project, and have them approved by your Committee.

Before you begin writing your Thesis or Dissertation

You are required to use the Montana Tech Thesis template (the link to the download is on this [page](#)) or [Dissertation template](#) located on Admitted Student Forms webpage. Any questions on the formatting or specific formatting issues should be directed to the E-thesis manager, Trisha Southergill at psouthergill@mtech.edu

Thesis and Dissertation Deadlines - To graduate on time, these deadlines must be met.

No less than 2 weeks prior to Defense: Schedule and publicize the location, date, and time of your defense and submit draft of product to e-thesis manager. The Graduate School can assist with producing and disseminating the announcement.

To complete your degree in any term, your defense must take place on or before the last day of class, and your thesis/dissertation and all items on the Graduation Check List must be completed by the designated date for that term (last day of exams).

After Defense: Contact the E-Thesis Manager to submit your thesis and coordinate any changes and The E-Thesis Manager will upload your thesis to the ProQuest Electronic Thesis Website.

| THESIS DEADLINES | Fall | Spring | Summer** |
|--|----------------------------------|----------------------------------|----------------------------------|
| Draft thesis due to committee chair | 3rd Friday in October | Friday before spring break | 2nd Wednesday of first session |
| Draft thesis due to committee members | 4th Friday in October | Monday after spring break | 3rd Monday of 1st session |
| Final thesis due to committee members and E-thesis Manager | Friday before Thanksgiving | Friday on/before April 15 | 2nd Monday of 2nd session |
| Schedule and publicize defense: at least 2 weeks prior to defense* and submit draft of product to e-thesis manager | 2 weeks before last day of class | 2 weeks before last day of class | 2 weeks before last day of class |
| Absolute last day to defend* | Last day of class | Last day of class | Last day of class |
| Final thesis draft, approved by committee submitted to thesis Manager for final review & upload | Last day of exams | Last day of exams | 1 week after last day of class |
| Final check-out list to Grad School* | Last day of exams | Last day of exams | 1 week after last day of class |

**Exceptions require a petition to the graduate dean. Missing the defense deadline or the final checkout deadline will require the student to register for at least one thesis credit in the following term. Deadlines without asterisks are subject to the willingness of the committee chair and members. Faculty members have many responsibilities and obligations, especially during the period approaching the end of a term. When students miss the thesis draft deadlines, faculty may be unable to review the thesis in time for the asterisked deadlines to be met. Faculty members have no obligation to accommodate students who fail to meet these deadlines.*

***Subject to the willingness and availability of committee chair and members, many of whom are not on campus during the summer.*

Exceptions

Exceptions to the deadlines and processes above must be justified and requested in writing, in advance, using the "[Petition to Graduate Dean form](#)" form. Suitable accommodations will be provided for a student with a registered disability; a petition to the dean would not be required in this case, but the Advisor and Graduate School must be notified in a timely manner of the disability and need for accommodation.

NOTE:

Plagiarism is illegal. You are responsible for using information in compliance with the highest standards of academic honesty. You must reference the work and ideas of others, and comply with copyrights and regulations.

Required Thesis Format

Use the [Thesis Template](#) found on the Graduate School's website.

Oversized Maps will be sent to the publication company, which will make a digital copy and also put a hard copy in a pocket at the back of the bound Thesis/Dissertation (contact Trisha Southergill, E-Thesis Manager, psouthergill@mtech.edu).

Images

Images must show a full range of contrast and the resolution must be at least 300 dpi.

Electronic Media – DVDs, CD-ROMs, Videos

Electronic media that accompanies your Thesis/Dissertation must be properly labeled with title, author, and date of completion. You must provide a media-appropriate container (case or cover) for the Library Copy.

Supplemental materials must be identified at the end of the Table of Contents (see E-Thesis Manager).

Supplemental Thesis Materials

Your thesis/dissertation may include supplemental materials. All supplemental materials, including DVDs, CDs, and large maps must be submitted to Trisha Southergill, E-Thesis Manager, for approval. Direct questions to psouthergill@mtech.edu.

Requirements for non-Thesis Project, Report, and Publishable Paper Submission

The Graduate School requires all graduate student projects including non-thesis projects, reports, and publishable papers be submitted to the graduate school for publication in Montana Tech's Digital Commons as a part of graduation requirements.

Non-Thesis Project, Report, and Publishable Paper Deadlines

To graduate on time, these deadlines must be met.

No less than 2 weeks prior to Defense: Schedule and publicize the location, date, and time of your defense and submit draft of product to e-thesis manager. The Graduate School can assist with producing and disseminating the announcement.

To complete your degree in any term, your defense must take place on or before the last day of class, and your non-thesis project report or publishable paper and all items on the Graduation Check List must be completed by the designated date for that term (last day of exams).

After Defense: Contact the E-Thesis manager to submit your report and coordinate any changes. The E-Thesis Manager will upload your thesis to the Digital Commons Electronic Website.

GRADUATION PROCEDURES

Degree Requirements

Requirements for a Master's Degree include course work, seminars and, depending on the chosen option of study: **Option A:** thesis, publishable paper, or **Option B:** non-thesis. These include completed thesis, publishable paper or graduate project as outlined on the Graduate Program Form; comprehensive exams and/or successful thesis defense; acceptance of the thesis by the E-Thesis Manager; completion of non-thesis requirements while maintaining at least a 3.0 GPA. The completed Check-Out Form as submitted to the Graduate School is the indication that the degree requirements have been met (see deadlines below). Master's degrees require a minimum of 30 credit hours.

Requirements for a Doctoral Degree include coursework, seminars, qualifying examination, candidacy examination, a dissertation describing significant and original research, and the dissertation defense. Doctoral degrees require a minimum of 60 credit hours, which could include some course credits (not thesis credits) that were also applied to a master's degree.

Application for Degree

Graduate students must complete and file an [Application for Master of Science or Application for a Doctor of Philosophy Degree](#) with the Graduate School **BY THE 10TH DAY OF CLASS** of the **semester of the expected completion** of degree requirements. If degree requirements are not met during the semester indicated on the application, an [updated degree application](#) is required. Failure to submit the application by the specified date may result in not receiving Commencement information and/or not being included on the Commencement program. *Please note: if degree requirements are not met, continuing enrollment is required until requirements are completed.*

Check-Out Form

Before a diploma and/or final transcript with the degree posted can be released, the Graduate School must certify that the candidate has fulfilled all degree requirements, including submission to the Graduate School of a completed [Check-Out Form](#). This form requires signatures from your Department, the Registrar's Office, the Physical Plant, Library, Business Office, etc. The Check-Out Form is due in the Graduate School Office by the final day of exams for each semester. If not submitted by the given deadline, a mandatory 1-credit registration will be in effect until the paperwork has been submitted. The delayed paperwork will also affect the term in which your degree is posted.

Students in distance programs use a separate Check-Out Form that will be available directly from the program's department or at [The Graduate School Forms page](#).

Commencement

Graduation or Commencement ceremonies are conducted annually in May with dates indicated in the current catalog. You may order caps, gowns, and other commencement materials through the Bookstore. If you submit the Application for Degree on time, you will be notified of graduation events such as the Alumni Dinner and rehearsal times by email to your mtech.edu email address.

Graduate students who graduate in the fall may attend the small Fall ceremony and/or the Spring commencement. Graduate students that are set to graduate in the subsequent summer term, may participate in the Spring commencement if they have six credit hours or less to complete in their graduate degree.

Your final transcript will be marked with the date of the final day of exams the term you fully complete the requirements for your degree, including submission of your thesis/dissertation/report and the degree checkout form.

Delayed Completion

If your thesis, dissertation, examination, or publishable paper has not been successfully completed and defended with all paperwork submitted and accepted by the deadline stated in the paragraph entitled "[Check-Out Form](#)," the minimum enrollment requirements will continue (1 credit). The minimum enrollment requirement is in effect for the semester in which you plan to defend, present your paper, or complete your non-thesis examination as long as all other requirements have been met (coursework, seminar, thesis credits).

Table 2. GRADUATE SCHOOL TIMELINE

| WHAT | WHEN | PROCEDURE |
|--|--|--|
| Registration for Classes | After meeting with advisor and BEFORE CLOSE OF REGISTRATION! Ideally during the early registration period in the previous term and preferably prior to the start of classes. | Register with your advisor. For courses with variable credits or Drop/Add issues, go to Graduate School (MG 207). |
| Graduate Program Form and Selection of Graduate Committee Form | By the end of the second semester or prior to the completion of 15 credits. | Consult advisor; submit program on official form with all required signatures to the Graduate School, including approval of thesis title indicated by chair's initials. |
| Thesis/Dissertation Outline or Proposal | Before the end of second semester (MS) or third semester (Ph.D.). | Per program guidelines, submit outline or proposal to Graduate Committee members for approval. Meet with Committee on regular basis to review progress. |
| Application for Master's or Ph.D. Degree | Due by 10 th day of class for semester in which completion of degree is expected | Complete and submit Degree Application to Graduate School. |
| Final Changes in Program Curriculum | If needed, submit no later than one month prior to end of semester of completion of degree requirements. | Submit Amended Student Program form to Graduate School (changes in courses, committee, graduation date, etc.). |
| Thesis/Dissertation Draft for Review, & Defense Scheduled | At least two weeks prior to the defense, submit final draft to Committee and E-Thesis Manager & notify graduate school office to publicize defense. | Submit final draft to Committee for review and to E-Thesis Manager for format check. |
| Comprehensive Examination (if applicable) | No later than last day of regularly scheduled classes of semester in which graduate work is completed (not during finals week). | Schedule comprehensive exam with advisor and graduate advisory committee. |
| Defense of Thesis/Dissertation or Presentation of Publishable Paper | No later than the last day of regularly scheduled classes of semester in which graduate work is completed (not during finals week). | Schedule with committee location and time of defense. Graduate School should be notified at least two weeks in advance and will announce the location, date, time, and thesis title. |
| Submission of final graduate product (thesis, publishable paper, non-thesis project.) | After the defense and upon completion of corrections. See E-Thesis Manager for submission: Due by last day of exams. | Submit completed Thesis Authorization Form, Grad Checkout List, Grad Student Publication Agreement and Signature Page to E-Thesis Manager as applicable. |
| Submission of Grad Student Check-Out and Hazmat Forms | After successful completion of oral or written exam and/or thesis/dissertation defense or publishable paper presentation. | Secure all signatures on Check-Out form and return to the Graduate School. This document is required to post your degree. |
| Commencement | End of Spring Semester only. Completion of defense, exam, or publishable paper presentation by last day of scheduled classes is required for participation in Commencement. Diploma parchments will be awarded each semester. | <u>If defense or presentation requirements are not met</u> , complete and submit Application for Degree Update form to Graduate School. <u>If all other degree requirements are met</u> (coursework, seminar, thesis), only 1 credit enrollment is required for defense or presentation in the following term. |

Contact your department for specific department timelines and deadlines.

GRADUATE SCHOOL FORMS

Graduate School Forms are available on the Graduate School's Website: <http://www.mtech.edu/academics/gradschool/admitted-students/forms.htm> The Table below provides links to each form. During Academic Year 2017-18 the Graduate School is converting the forms to fillable ADA accessible formats.

They can also be obtained from the Graduate School. Please contact the Graduate School at (406) 496-4304 or Gradschool@mtech.edu or the Graduate Dean at graduatedean@mtech.edu with questions regarding the forms or any other Graduate School matters.

On-Campus Programs

- [Program Form](#)
- [Program Form Update](#)
- [Graduate Committee Appointment Form](#)
- [Degree Application](#)
- [Degree Application Update](#)
- [Checkout Form](#)
- [Lab Checkout Form](#)
- [Graduate Hazardous Waste Checkout Form](#)

Miscellaneous Forms

- [Application for Readmission](#)
- [Leave of Absence Form](#)
- [Petition to Graduate Dean](#)
- [Petition to Transfer Credit Form](#)
- [Petition to Change Levels Form](#)

Graduate Product

- [Graduate Student Product Publication Agreement](#)
- [Graduate Product Submittal Policy & Process](#)

Dissertation

- [Dissertation procedure](#)
- [Dissertation Authorization form](#)
- [Dissertation template](#)

Thesis

- [E-Thesis Authorization Form](#)
- [E-Thesis Procedure form](#)
- [Thesis Deadlines](#)
- [Thesis Cover Page Example](#)
- [Thesis Signature Page Form](#)
- [Thesis Template Form – Save to your Computer](#)

Industrial Hygiene Distance Learning/Professional Track

- [Program Form - IH Distance](#)
- [Degree Application – IH Distance](#)
- [Checkout Form – IH Distance](#)

Master's in Project Engineering and Management (MPEM)

- [MPEM Distance Learning Program Form](#)

Health Care Informatics Graduate Certificate Program (HCI)

- [Degree Application](#)

LIBRARY INFORMATION

Research Help

Meet with a research librarian **before** you begin writing your thesis.

Montana Tech Library has subject-specialist librarians to assist you in finding relevant information for your thesis. They will help you locate journal articles, books, conference proceedings, government publications and more. Call the Information Desk at 496-4282 to set up an appointment with a librarian, or contact librarians directly:

| | | |
|----------------|----------|--|
| Micah Gjeltema | 496-4523 | mgjeltema@mtech.edu |
| Adrian Kien | 496-4286 | akien@mtech.edu |

Library Services

Interlibrary Loan

If the library does not own an item that you need, it can often be obtained through the interlibrary loan system, called ILLiad. You can obtain books, journal articles, and other materials for your research at no charge to you.

To use ILLiad:

You must first set up your account at [ILLiad](#). Click "First Time Users Click Here."

To request an item:

Log in to your ILLiad account and select the type of material you want, and then fill out the form as completely as possible. [Click here](#) for more info.

Many items arrive in 1-2 days, but others may take up to 1-2 weeks. When you order *books*, you will be notified when your items arrive at the library, and you can pick them up at the Information Desk. To retrieve *articles* you have ordered, log into your ILLiad account and select "View/Download Electronically Received Articles."

Databases and Indexes

Electronic access to the library's 100+ academic databases is available to *all students* through the [Databases A-Z List](#) on the library's website. Databases are accessible off-campus via the above link. Most databases are specific to a particular subject which makes them powerful tools for finding relevant information. Do not hesitate to ask for assistance from a librarian if you do not know where to start or cannot find what you need. [Click here](#) for info.

Style Guides

While writing your thesis, you will need to adhere to one style for your citations, notes, and other elements of your thesis. The library has [Print and Electronic Style Guides](#). The print versions are on the first floor of the library. Examine both the print and electronic guides, and consult your Committee Chair to choose the style for your field and subject. You may also find it useful to use a citation manager like Mendeley or EndNote. Contact a librarian if you have questions about these services.

Special Collections

Federal Government Documents

The U.S. government is a valuable source of information, particularly in the sciences, health, and social sciences. The library receives materials related to these subjects, including maps, annual reports, periodicals, legal materials, legislative publications, and many other documents. Most government publications are online, but some are still published in print. Many items appear in the [Library Catalog](#) with a link to the electronic version of the resource as well as the call number for paper resources. Ask a librarian if you do not find what you are looking for.

The University of Montana at Missoula has a large government documents collection as well. This includes thousands of maps and charts, many of which are available to you through interlibrary loan.

State & International Government Documents

The library has a substantial collection of current and historical Montana documents related to geology, mineral exploration and extraction, environmental issues, and natural resources. The oldest date back to the mid-

19th century, and include all the publications of the Montana Bureau of Mines and Geology beginning at the turn of the 20th century.

The Library also maintains a collection of documents related to geology, minerals, environmental issues, and natural resources from all fifty states as well as Canada and other foreign countries.

Patents & Trademarks

Patents and trademarks are another source of information containing new and developing technologies as well as the history of many ideas and processes. The Montana Tech Library is the Patent and Trademark Resource Center (PTRC) for the state of Montana. If you have questions about patents and trademarks please contact Micah Gjeltrema at mgjeltema@mtech.edu or 496-4523.

Montana Superfund Documents

The library has a specialized collection of print documents related to environmental remediation efforts in Montana, particularly in the Butte-Silver Bow-Anaconda area. If we do not have the document you need, we can also obtain documents for your use from the state of Montana, the federal Environmental Protection Agency, or through interlibrary loan.

Master's Thesis Format and Submission Requirements

See the "Requirements for Thesis Format and Submission" guidelines on the Graduate School website, or contact the E-Thesis Manager, Trisha Southergill, 496-4527, psouthergill@mtech.edu.

Digital Commons

Digital Commons @ Montana Tech provides a central, on-line location for papers, posters, abstracts, videos and more created by Montana Tech students and faculty. Works posted in Digital Commons are discoverable in Google and other major search engines; its stable URLs provide permanent access. Master's project reports are to be posted on Digital Commons. Other works, such as posters, presentations, performances, and papers may also be posted, if compatible with the work's copyright status. To post your work, or for more information about Digital Commons contact Micah Gjeltrema: mgjeltema@mtech.edu, 496-4523; or Kristi Carroll: kcarroll@mtech.edu, 496-4668.

PERSONAL SAFETY

Montana Tech is committed to the personal safety and wellbeing of students, faculty, staff and visitors. If you experience a crime, assault or harassment, Montana Tech is here to help.

Montana Tech Campus Security officers are available 24 hours every day to respond to any emergency on our campus. Reach Campus Security by calling **(406) 496-4357 (406-496-HELP)**. From any campus phone, just dial 4357 (HELP). If you call Campus Security at this number, you can also arrange for a safety escort on campus between buildings or from a building to your car.

If you experience an emergency off the Montana Tech campus, *please dial 9-1-1*. For non-emergencies off campus, call **Butte-Silver Bow Law Enforcement at (406) 497-1120**.

St. James Hospital is located at **400 South Clark Street** and can be reached at **(406) 723-2500**.

Sexual Assault & Harassment

Montana Tech is committed to providing an environment that emphasizes the dignity and worth of every member of its community and that is free from harassment and discrimination based upon race, color, religion, national origin, creed, service in the uniformed services, veteran status, sex, age, political ideas, marital or family status, pregnancy, physical or mental disability, genetic information, gender identity, gender expression, or sexual orientation. Such an environment is necessary to a healthy learning, working, and living atmosphere, because discrimination and harassment undermine human dignity and the positive connection among all people at Montana Tech.

Thus, acts of discrimination, harassment, domestic violence, dating violence, sexual assault, sexual misconduct, stalking, and retaliation are prohibited.

If you experience any form of sexual assault or harassment, you can submit a Title IX Violation with the [Title IX Report Form](#) or contact the Title IX Coordinator, Vanessa Van Dyk: [E-mail Vanessa](#) or call her at 406-496-4322. You can contact Dean Carrie Vath at 406-496-4198 or after hours at 352-682-2492.

If you would prefer to speak to someone confidentially you can contact a Montana Tech counselor:

- Joyce O'Neill: [E-mail Joyce](#) or call her at **(406) 496-4429**.
- Cricket Pietsch: [E-mail Cricket](#) or call her at **(406) 496-3730**.










For detailed information see [Montana Tech's Policy](#) on Discrimination, Harassment, Sexual Misconduct, Stalking, and Retaliation. For options for reporting sexual misconduct please see <http://www.mtech.edu/campus-safety/files/sexual-assault-reporting-options.pdf>

Equal Opportunity Employment, Affirmative Action, & Title IX

It is the policy of Montana Tech to provide equal educational and employment opportunity (EEO) to all persons regardless of race, color, religion, creed, sex, national origin, age, mental or physical disability, marital status, sexual orientation or political belief with the exception of special programs established by law.

Montana Tech is committed to Equal Opportunity Employment, Affirmative Action, and Title IX. Contact Montana Tech Equal Employment Opportunity and Affirmative Action Officer Vanessa Van Dyk at **(406) 496 4322** or [E-mail Vanessa](#). [Visit the Montana Tech EEO-AA/Title IX page](#).

HAZARDOUS MATERIALS INFORMATION

| GHS Pictograms and Hazard Classes | | |
|--|--|--|
| <p>pic 1803</p>  <p>Oxidizers</p> | <p>pic 1802</p>  <p>Flammables Self Reactives Pyrophorics Self-Heating Emits Flammable Gas Organic Peroxides</p> | <p>pic 1801</p>  <p>Explosives Self Reactives Organic Peroxides</p> |
| <p>pic 1809</p>  <p>Acute Toxicity (severe)</p> | <p>pic 1808</p>  <p>Corrosives</p> | <p>pic 1804</p>  <p>Gases Under Pressure</p> |
| <p>pic 1807</p>  <p>Carcinogen Respiratory Sensitizer Reproductive Toxicity Target Organ Toxicity Mutagenicity Aspiration Toxicity</p> | <p>pic 1806</p>  <p>Environmental Toxicity</p> | <p>pic 1805</p>  <p>Irritant Dermal Sensitizer Acute Toxicity (harmful) Narcotic Effects Respiratory Tract Irritation</p> |

HAZARDOUS MATERIALS INFORMATION

Purpose

The Hazardous Materials section presents a brief overview of hazardous materials issues encountered while working on campus. Contact the Environmental, Health and Safety Office (EH&S), 4463, for information on the use of hazardous materials, the collection of hazardous wastes for disposal, and information about hazardous materials responsibilities and management. A complete Hazardous Materials Management Plan is available on line at http://www.mtech.edu/env_health_safety/docs/hazardous-materials-management-plan.pdf.

Introduction

Faculty, researchers and students at Montana Tech routinely use hazardous substances for research and instruction, and consequently generate hazardous wastes. Disposal of waste and unwanted chemicals has become increasingly complicated. Protection of human health and the environment from potential hazards posed by these materials is essential. This section summarizes some of the basic issues associated with hazardous materials and Montana Tech's current management program.

Definitions

An understanding of some basic terms is essential.

Solid waste: Includes both hazardous and nonhazardous wastes in solid, semi-solid, liquid, or gaseous states. Garbage, refuse, sludges from waste treatment, water supply treatment or pollution control facilities, discarded material from industrial, commercial, mining, agricultural, and community activities.

Hazardous waste: Solid waste that is either listed as a hazardous waste by the Environmental Protection Agency (EPA) (F, K, P or U list) or exhibits the characteristics of hazardous waste (ignitability, corrosivity, reactivity, toxicity), or is a mixture containing a hazardous waste.

Acute hazardous waste: (EPA "P" list) Chemicals that are acutely toxic and require special procedures for handling and discarding.

Regulatory Jurisdiction

Chemicals on the Montana Tech campus are regulated by several laws: The Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (worker right-to-know), OSHA's Occupational Exposure to Hazardous Chemicals in Laboratories Standard (the Lab Standard), and the U.S. Environmental Protection Agency's (EPA) Resource Conservation and Recovery Act (RCRA). RCRA is the primary hazardous waste regulation in the United States, passed by Congress in 1976, and revised in 1980 and 1984. Subtitle C of RCRA establishes a "cradle to grave" system for managing hazardous materials. These regulations developed by the U.S. Environmental Protection Agency (EPA) apply to those who generate, transport, treat, store or dispose of hazardous wastes. The Montana Department of Environmental Quality (MDEQ) is authorized to administer its own hazardous waste requirements within the state. These requirements are equivalent to those promulgated by the EPA, and in a few exceptions, are more stringent than the federal requirements.

In addition to the EPA, OSHA, and the MDEQ, Montana Tech's hazardous materials activities must also conform to the regulations and guidelines of the Butte-Silver Bow Public Works Department for landfill issues and the Butte-Silver Bow Metro Wastewater Treatment Plant.

Responsibilities

Proper handling of chemicals and hazardous materials in laboratory and classroom activities is the responsibility of students, instructors, researchers and department administrators. When a hazardous material becomes a hazardous waste, the responsibility for proper handling is likewise shared by every level of administration.

When an environmental law is violated, Montana Tech can be fined; however, liability can also extend to the hands-on student, researcher, and technician, up to the highest positions of administration. Penalties for violation range from warnings to imprisonment and fines of up to \$25,000 per day for each offense. A warning for an offense can be issued only once, and the next offense requires that a penalty be issued. Each subsequent repeat offense requires a

ten-fold increase in the amount of the fine. Intentional violations receive the most severe sanctions.

Ignorance of the law and lack of experience are not defenses. A graduate student with a degree in science or engineering is expected to have the awareness of an experienced professional.

Procedures for Handling Hazardous Substances and Hazardous Waste

Chemical Management System

By statute and policy, Montana Tech must comply with all federal, state and local regulations regarding hazardous materials. Montana Tech utilizes a chemical management system, which ensures that hazardous acquisitions are inventoried and recorded, safety data sheets (SDS) and required spill clean-up equipment are on site, and the materials are properly disposed of. These procedures are designed to bring Montana Tech into compliance with the regulations and minimize the amount of waste that we generate on our campus. The following is an overview of the program.

Each department on campus has a chemical acquisition manager (CAM) who has been trained in the inventory management procedures. **All chemical acquisitions (including donations) must go through this person.** Check with Office of EH&S to see who the CAM is for your department.

When a researcher needs a chemical, he/she must contact the CAM, who first checks to see if the chemical is an acutely hazardous material (or a RCRA "P-listed" chemical). That list is available from EH&S. If it is P-listed, the chemical user will be asked to consider substituting a less hazardous material if at all possible. P-listed materials are extremely hazardous and very expensive to dispose.

The CAM then checks the campus inventory to determine if the chemical is already available on campus. If another department is willing to barter for the chemical, you will have saved yourself some time and money.

If the chemical is not available on campus, the CAM will secure a purchase order number or use a Pro-card to order any chemicals that must be purchased. **Order only what you need.** Even though the cost may be lower by buying large quantities, the expense for disposing of the unused chemicals usually far exceeds the cost savings.

The CAM will receive the chemicals when they arrive, place a bar code on the container, enter all the pertinent information into the database system, and

make certain that the SDS came with the chemical. A copy of the SDS goes to the user and one to the SDS file. **The chemical user must read the SDS before using the chemical.** The user is also responsible for ensuring that he/she has and uses the proper protective equipment (gloves, goggles, aprons, etc.)

When a chemical container is **empty**, the CAM must be notified and given the bar code number to record the consumption of the chemical. If a chemical is no longer wanted or needed within the department, the CAM will notify other departments of its availability.

For any hazardous waste disposal, contact the Office of EH&S, 4463.

Disposal Costs and Waste Minimization

Disposal of hazardous waste and acute hazardous waste can be very expensive, especially if the contents are unknown. In a recent case, a one-liter container of unknown material cost over \$800 to analyze and identify before it could be properly disposed of. **EH&S WILL NOT ACCEPT UNKNOWNNS FOR FREE DISPOSAL.** Unknown materials will be accepted with the understanding that the department or research program responsible for the waste will be billed for the analysis and possibly for the disposal.

One kilogram (2.2 pounds) of a known acute hazardous waste (P-listed) that was turned over to the EH&S office for disposal cost Montana Tech \$1800 to dispose of. These are prime examples of why waste identification and minimization are so crucial.

The following **waste minimization techniques** should be considered:

- Eliminate the need for chromic acid washing of glassware, either by using disposable plastic glassware or by cleaning glassware with specialty detergents. Chromic acid rinsate must be disposed of as hazardous waste.
- Buy only the amount of chemical, paints, etc. that you need. This will reduce generation of surplus materials requiring disposal.
- Explore opportunities to use or reuse a waste in another process.
- Never combine hazardous wastes with non-hazardous wastes or acute hazardous waste with other waste. The entire quantity then becomes

hazardous or acutely hazardous and will be more expensive to dispose of.

Many toxic and corrosive waste chemicals can be converted to non-hazardous chemicals with simple chemical treatment methods.

A copy of the **Chemical Hygiene Plan** (CHP) has been placed in each laboratory on campus; the CHP contains an appendix on chemical disposal procedures. EH&S also has several reference books available and can provide guidance on waste destruction. If destruction methods are unavailable, then waste disposal will be the final step for each experiment.

Sewer Discharge and Landfill

No reagents should be discharged down the drain without the permission of the POTW (Publicly Owned Treatment Works, which is Butte-Silver Bow Sewage Treatment). Some chemicals may be neutralized, such as acids and bases, and discharged down the drain. Refer to the Chemical Hygiene Plan in the laboratory. Hazardous materials cannot be disposed of in dumpsters or waste baskets. Trash that goes to the landfill from commercial users like Montana Tech is strictly regulated. No hazardous materials are permitted into the landfill, and all chemicals are considered hazardous materials unless otherwise cleared.

Safety Data Sheets (SDS)

Every chemical that is brought on campus must have an SDS (formerly called MSDS – Material Safety Data Sheet). The SDS provides information about the identity of the chemical, its hazardous ingredients, the OSHA permissible exposure limits, the physical and chemical properties of the chemical, any physical hazards, health hazards, reactivity information, precautions for safe handling and use, and control measures. **Any employee/student who will be using a chemical must read the SDS before handling the chemical.**

Labeling of Chemical Containers

The purpose of labeling is to convey immediate identity and hazard information about the chemical. The identity is any term that appears on the

label, the SDS, and the list of chemicals, and thus links these three sources of information. The wording on the label should be in full word English form, not common abbreviations, as SDSs and labels generally use the word form. For example, *methyl alcohol* should be labeled as such or as an appropriate synonym such as *methanol*. MeOH alone is not acceptable because the SDS would not be filed under MeOH.

Every chemical container, whether it is the original or a secondary container, must have a permanent and readable label identifying the contents,¹ including those containing non-hazardous materials such as deionized water. The Office of Environmental, Health & Safety has secondary labels available.

¹ Exception to this rule: Portable containers into which hazardous chemicals are transferred from labeled containers and are intended only for the **immediate** use of the individual who makes the transfer do not require a label. If another person will use the chemical or if the chemical will not be used up that day, the container must be fully labeled.

The Laboratory Standard also provides an exemption for beakers, flasks, and test tubes; they do not have to be fully labeled. However, they must at least be labeled with the contents, the name of the responsible person, and a date. Containers found with unknown substances in them are very expensive and difficult to dispose of. The department/researcher/student will be held responsible.

Other information that must appear on a chemical container label includes:

1. Product identifier
2. Supplier information
3. Signal words – either Danger or Warning
4. Pictograms for the hazards present
5. Hazard and precautionary statements for each hazard class and category

These labeling requirements do not apply to hazardous waste containers. (See below for hazardous waste requirements.)

Experimental procedures commonly use numerous **small**-size sample bottles labeled only with a code abbreviation recorded in a logbook. If the small-size sample containers are stored in a rack or larger container, the labeling requirement can be satisfied by labeling only the rack or larger container. For

example, "All containers in this rack contain samples of Crystal Mine water filtered through wood chips and sand."

Labeling of Hazardous Waste Containers

Waste containers must be labeled clearly with the words "HAZARDOUS WASTE" or "ACUTE HAZARDOUS WASTE," or the substance name with the word "WASTE" such as "waste toluene," whatever is appropriate.

As waste is added to a container, the addition must be listed in a log book; the entry must include the date, concentration, total amount of each chemical/contaminant in the waste, and the person adding the waste. (See *Log Records* section.) This is crucial for a waste containing any of the contaminants listed in Table 1 of 40 CFR 261.24 "Maximum Concentration of Contaminants for the Toxicity Characteristic." If the concentration in the waste exceeds the regulatory level given in this table, the waste is then a hazardous waste. Table 1 appears at the end of this section.

Log Records

Hazardous waste collection containers must have a written record or log nearby that identifies each addition of waste, including the date of the additions, the constituents, and the name of the person adding the waste. This record of accumulation is required by law, and is necessary when the time comes for disposal. Unknown hazardous waste must be identified before disposal, and the costs can be very high for analysis.

Storage of Chemicals and Hazardous Waste

- Chemicals and waste must be stored in **suitable containers** that prevent the accidental release of material, and containers must have adequate labeling. Plastic milk jugs and soda bottles are not acceptable. If the container is not in good condition or is leaking, the hazardous material must be transferred to another container or managed in some way that complies with the requirements.
- Chemical **compatibility** and hazard class must always be considered when storing.
- Use **secondary containment** for all liquid chemicals.

- Ensure that the container will **not react** with the contents (i.e., don't put acids in metal cans).
- Original chemical shipping containers may be reused as hazardous waste containers if the container is compatible with the waste materials, and the container is re-labeled.
- Waste containers must have **caps or lids** capable of containing materials if the container is tipped over. Aluminum foil and plastic wrap are not adequate.
- Use the **appropriate size container** for the amount of waste (don't put 20 g or 20 ml of waste in a 2.5 liter bottle).
- Leave two (2) inches of **headspace** in liquid containers. Do not fill bottles to the top.
- **Segregate SOLVENT wastes** into three separate classes/containers:
 - Halogenated (i.e. chloroform)
 - Water miscible, non-halogenated (i.e. acetone, alcohols)
 - Non-water miscible, non-halogenated (i.e. hexane)
- Do not mix inorganic wastes with organic wastes.
- Do not mix heavy-metal wastes with organic wastes.
- Never mix **mercury compounds** with any other wastes.
- **Segregate** acid waste from base waste, unless you are neutralizing the material. Do not mix either acids or bases with solvents.
- Do not accept wastes from outside parties for disposal through Montana Tech.
- All containers of hazardous waste must be **dated** on the day that EH&S is notified of the request for the pickup. This date will be the accumulation start time.
- A container holding hazardous waste must always be **closed during storage**, except when it is necessary to add or remove waste. The regulations allow for a hazardous waste container to be opened at the beginning of a laboratory class period (provided that materials are not volatile) so students have easy access to the container. The waste container must be closed securely after the class is over. This exemption does not apply to the performance of research. Hazardous waste containers in research laboratories must be kept **closed at all times**.

Satellite Waste Containers

Hazardous waste containers are permitted in laboratories, provided that the containers are properly labeled as "HAZARDOUS WASTE" or "ACUTELY HAZARDOUS WASTE," or with other words that identify the contents of the containers. These are considered "satellite waste containers." The containers must be closed at all times with the exception noted above. When the waste container is full or the process or study that created the waste is terminated, the waste can then be transferred to the Office of Environmental, Health & Safety for disposal. Contact the EH&S office for instructions.

Fume Hood Use

Most operations in a laboratory are carried out in fume hoods. Please note the following operating instructions.

Operating Instructions for Fume Hood

Do not operate with sash higher than 18".

1. Place chemicals at least 6" inside sash.
2. Elevate large apparatus on blocks so airflow is not blocked. Do not block baffles.
3. Remove all materials not needed for immediate work. Hood should not be used for storage.
4. Keep sash closed when hood is not in use.
5. Never place your head inside hood.
6. Wear **chemical splash goggles** at all times when using chemicals.
7. Clean up spills immediately.
8. If fumes or odors are present, stop, close sash and notify Physical Facilities and EH&S that there is a problem.

CAUTION: Do not use any hood for perchloric acid procedures, except for the designated perchloric acid fume hood located in CBB.

Each department is responsible for maintaining a log of what chemicals are used in a given fume hood. Each time a new or different chemical is used in a fume hood, the chemical must be listed on the log. The information should include the person's name and chemical(s) they are using. If a chemical already appears on the log, it does not have to be entered again unless a different person is using it.

Table 1-Maximum Concentration of Contaminants for the Toxicity Characteristics

| EPA HW No. | Containment | CAS NO.(2) | Level (mg/l) |
|-------------------|----------------------------|-------------------|---------------------|
| D004 | Arsenic | 7440-38-2 | 5.0 |
| D005 | Barium | 7440-39-3 | 100.00 |
| D018 | Benzene | 71-43-2 | 0.5 |
| D006 | Cadmium | 7440-43-9 | 1.0 |
| D019 | Carbon tetrachloride | 56-23-5 | 0.5 |
| D020 | Chlordane | 57-74-9 | 0.03 |
| D021 | Chlorobenzene | 108-90-7 | 100.0 |
| D022 | Chloroform | 67-66-3 | 6.0 |
| D007 | Chromium | 7440-47-3 | 5.0 |
| D023 | o-Cresol | 95-48-7 | {4} 200.0 |
| D024 | m-Cresol | 108-39-4 | {4} 200.0 |
| D025 | p-Cresol | 106-44-5 | {4} 200.0 |
| D026 | Cresol | 94-75-7 | {4} 200.0 |
| D016 | 2,4-D | | 10.0 |
| D027 | 1,4-Dichlorobenzene | 106-46-7 | 7.5 |
| D028 | 1,2-Dichloroethane | 107-06-2 | 0.5 |
| D029 | 1,1-Dichloroethylene | 75-35-4 | 0.7 |
| D030 | 2,4-Dinitrotoluene | 121-14-2 | {3} 0.13 |
| D012 | Endrin | 72-20-8 | 0.02 |
| D031 | Heptachlor (& its epoxide) | 76-44-8 | 0.008 |
| D032 | Hexachlorobenzene | 118-74-1 | {3} 0.13 |
| D033 | Hexachlorobutadiene | 87-68-3 | 0.5 |
| D034 | Hexachloroethane | 67-72-1 | 3.0 |
| D008 | Lead | 7439-92-1 | 5.0 |
| D013 | Lindane | 58-89-9 | 0.4 |
| D009 | Mercury | 7439-97-6 | 0.2 |
| D014 | Methoxychlor | 72-43-5 | 10.0 |
| D035 | Methyl ethyl ketone | 78-93-3 | 200.0 |
| D036 | Nitrobenzene | 98-95-3 | 2.0 |
| D037 | Pentachlorophenol | 87-86-5 | 100.0 |
| D038 | Pyridine | 110-86-1 | {3} 5.0 |
| D010 | Selenium | 7782-49-2 | 1.0 |
| D011 | Silver | 7440-22-4 | 5.0 |
| D039 | Tetrachloroethylene | 127-18-4 | 0.7 |
| D015 | Toxaphene | 8001-35-2 | 0.5 |
| D040 | Trichloroethylene | 79-01-6 | 0.5 |
| D041 | 2,4,5-Trichlorophenol | 95-95-4 | 400.00 |
| D042 | 2,4,6-Trichlorophenol | 88-06-2 | 2.0 |
| D017 | 2,4,5-TP (Silvex) | 93-72-1 | 1.0 |
| D043 | Vinyl chloride | 75-01-4 | 0.2 |

EMERGENCY RESPONSE INFORMATION



EMERGENCY RESPONSE INFORMATION

See Montana Tech's
[Emergency Action and Crisis Protocol Manual](#) and
Montana Tech's [Safety Policy](#) for complete details

When an emergency situation arises, such as a **fire, explosion**, etc., the following procedures must be followed:

- **Call 911** and identify who you are, exact location of the emergency, nature of emergency, and any hazardous materials involved.
- If necessary, evacuate building first, **then** call 911 from a safe location.
- **Call Campus Security** (HELP or 4357), **EH&S** (4463) and **Physical Facilities** (4268).
- **Evacuate** building by pulling fire alarm.

If a release or spill of hazardous materials occurs, follow these procedures:

- Call **EH&S (4463)** who will determine if additional resources should be called, i.e., fire department, Olympus Environmental, Northwestern Energy, etc.
- If the spill or release is large or involves a very toxic or flammable material, evacuate the area immediately.

If an **accident or injury** occurs, follow these procedures:

- **Call 911:**
 - If a victim should not be moved.
 - If someone is unconscious, even for a moment.
- Call **EH&S** (4463) and **Campus Security** (HELP or 4357)

If 911 is not called, any employee who is in need of **medical treatment** because of a work-related accident or injury should:

- Attempt to see your family physician first **if** the injury is not life threatening. If that is not possible, go to an Express Care unit or to St. James Healthcare Emergency Room.
- If the injury requires immediate attention, go to St. James Healthcare Emergency Room.

Accident Reporting/Investigation

- **All** work-related incidents of property loss or injury must be reported immediately by telephone or in person to Personnel, 4380. A [First Report of Injury](#) must also be completed online. If the incident involves any property damage or loss, Personnel, 4380, and Physical Facilities Director, 4399, must be notified immediately.
- Any non-work related incidents involving students or visitors must be reported immediately by telephone or in person to Personnel, 496-4380. A [Student/Visitor Incident Report Form](#) must be completed and submitted to Personnel.
- All work-related accidents and incidents are investigated, particularly those involving one or more of the following:
 - Injury or death involving a Montana Tech employee.
 - Damage to Montana Tech property and/or vehicle in excess of \$250.00.
 - Non-work related incidents involving students or visitors are also investigated if they occur on campus and involve injury or death.
 - The immediate supervisor or department head will participate in the initial investigation and report using the forms provided by the Personnel office. Personnel will coordinate with the EH&S Director to investigate the incident.

An accident report must be initiated:

- Even if the employee does not seek medical attention. This protects both the employee and Montana Tech. If an employee does not complete a report form and later decides to see a doctor, Montana Tech has no documentation that the accident occurred at work, and the claim may be questioned or challenged by Montana Tech and the Worker's Compensation carrier, and consequently, may be denied.

- Even if no injury or property damage resulted from the incident. This protects both the employee and Montana Tech. A “near-miss¹” signals that something is not right and should be investigated to prevent further incidents.
- In the event of the death of any employee from a work-related incident, Montana Tech must report the fatality by telephone to the Montana Department of Labor Safety Bureau in Helena, 444-6401, within eight (8) hours and within 24 hours for the in-patient hospitalization of an employee, an amputation or loss of an eye as a result of a work-related incident.

¹ A near miss is defined as an incident that has the potential to cause serious injury or property damage. The incident reveals a physical condition or employee action that could lead to future serious injury or property damage if not corrected.

Montana Tech Emergency Plan Instructions

What You Need to Know Now

Active Shooter

Follow these procedures in this order:

- a. Run – if you are able to get out of the area safely, do so!
- b. Hide – if you cannot escape, find a safe place to hide, barricade, and lockdown
- c. Fight – if you have no other choice, try to take the aggressor down – improvise weapons – use furniture, computers, fire extinguishers, etc.

Bomb Threat

1. Call 911 but do not pull fire alarm
2. Follow evacuation procedures if instructed to do so and sign in at assembly area so you are accounted for. You may be asked to remain in the building.

Earthquake

1. If inside, stay inside
2. If outside, stay outside and move away from buildings and utility wires
3. Drop, Cover and Hold on! Shield your head and face
4. Take cover under a heavy desk or table and stay there until shaking stops
5. If nothing is available to hide under, inner walls or door frames are next choice
6. Stay away from glass, hanging objects and bookcases

Fire

1. Pull fire alarm & follow evacuation procedures; sign in at assembly area
2. Call 911 from safe location
3. Call Environmental Health & Safety 4463 and Security 4357 (HELP)

**Use fire extinguisher if you are trained and fire is "garbage can size"

Gunman/Terrorist Event/Violence

1. Follow instructions for an Active Shooter

Hazardous Materials Incident

1. If a spill is in a lab and the spill is small & manageable, wear personal protective equipment & clean up appropriately. Always notify EH&S 4463
2. If a spill is in a lab and spill is large, toxic or flammable, evacuate lab. Notify EH&S 4463 & Security 4357 immediately
3. If incident is large from railcars or trucks in the vicinity, follow instructions to shelter-in-place or evacuate

Hostage Situation

1. If you are not the hostage, call 911, EH&S 4463, Paul Beatty 4198, Security 4357
2. Remove uninvolved individuals to a safe location
3. Provide any information you have to authorities

Medical Emergency or Physical Injury

1. Call 911 if you have an unconscious person or if someone requires immediate medical assistance
2. Also call EH&S 4463 and Security 4357
3. Send someone to meet emergency responders
4. Administer first aid, CPR or AED (automated external defibrillator) if necessary and if trained

Evacuation Procedures – follow anytime the alarm sounds or you are instructed to evacuate.

1. Follow evacuation route for that room/building
2. Close but do not lock doors unless necessary
3. Turn off equipment if safe to do so
4. Use stairs, not the elevator
5. Go to assigned assembly area and sign in so you are accounted for
6. Do not go back into a building until given the all clear

Lockdown Procedures – follow for any event when you need to be protected from someone or something on the outside

1. If you are outside, go to closest safe building and closest room
2. If you are already inside, stay in room
3. Close and lock door if possible
4. Close windows, drapes, & turn off lights
5. Lie down on floor away from windows and out of sight if possible
6. Remain silent & calm. Turn cell phones to silent, not just vibrate
7. Communicate with authorities if possible
8. Stay in place until all-clear is given by authorities

Shelter-in-Place Procedures – follow anytime there has been a large hazmat spill, radiation event, or other similar emergency

1. Move all people inside a building immediately
2. Close all doors to the outside, close and lock all windows, close drapes & blinds
3. Close as many internal doors as possible
4. Turn off all ventilation, heating & air conditioning systems (Note: on campus, this has to be done by Physical Facilities)
5. Extinguish all ignition sources
6. Take shelter in upstairs, interior room without windows if possible
7. If possible, seal gaps around windows, door, ventilation ducts or air conditioning units with duct tape, plastic sheeting, aluminum foil, towels, clothing, whatever you have available
8. Tune into local radio or TV for information
9. Stay in place until all-clear is given by authorities

Using Orediggerweb – Instructions for Students

(Including Self Pre-registration)

Orediggerweb is available 24/7/365, except Sunday 8:30-11:30 a.m., when Orediggerweb may be down for routine maintenance.

Orediggerweb will automatically log you out after 10 minutes of non-activity. You have three (3) attempts to login correctly. If unsuccessful, your PIN will be disabled, and you must contact Enrollment Services to re-activate your PIN (406-496-4256).

If you are a first-time user you must also select a *PIN Hint Question and Answer* upon your initial login.

Login

- **Direct your Browser** (Internet Explorer 4.0 or later is recommended) to the Montana Tech Home Page - www.mtech.edu and...
- Click **OrediggerWeb** in the upper right corner, **or access directly via** <http://orediggerweb.mtech.edu/>
- Once you've passed through the Orediggerweb Information Page, click **Login to Secure Area**
- Enter your Montana Tech username and password into the CAS login page.
- If you do not know your account information, you can find it at www.mtech.edu/pw.
- If you CANNOT retrieve your information AND you have:
 - registered for class more than 24 hours ago; or
 - applied for financial aid through Montana Tech; or
 - received information from Enrollment Services instructing you to log on and register for classes (this category primarily pertains to transfer students that have had their transfer credits articulated).
 - Please call the CTS Help Desk at 406.496.4244 or email us at ctshelpdesk@mtech.edu.
 - Accept the *Terms of Usage* by pressing **Continue**

Main Menu

- Select **Student Services & Financial Aid** to view holds, account summary, and pre- register for classes
- Select **Personal Information** to view address and phone information, and to change your PIN
- **To** return to previous menu, click the back button or *Return to Menu* button.
- **To** Exit at any time, click the **Exit** button at upper right corner of screen

Student Services & Financial Aid Menu

- **To view and print your schedule**, select **Student Services & Financial Aid**, then **Registration** and finally **Concise Student Schedule**.
- To **Print**, press *Print* on Icon Bar
- **Internships, Thesis credit, Special Topics Classes**, etc. must be processed via the Graduate Office after appropriate signatures of approval have been obtained.
- Press **Return to Menu** link at upper right corner of screen or the back button to return to previous menu
- **Help** is available from the Graduate School Office M-F 7:30 am-4:00 pm (406-496-4304)

Personal Information Menu

- **Changes of Address**, phone number, etc., are to be submitted to Enrollment Services at enrollment@mtech.edu.
- **Changing your PIN:** Enter Old PIN and your new PIN in the appropriate boxes. Then re-enter your new PIN in the verification field. Remember, your PIN must be numeric and 6 digits. Press the *Change PIN Number* button when finished.

Exit

- Press the *Exit* button at the upper right corner when finished. After exiting, please close your browser to protect your privacy.

CAMPUS TECHNOLOGY SERVICES

The three service areas: Information Services, Network Services and Telephone Services comprise Campus Technology Services

(<http://www.mtech.edu/cts/>)

MyMtech is Montana Tech's portal system. It allows easy access to Moodle (the online learning management system), announcements, course evaluations and many other important links.

Your account is created 24 hours after registration. The username and password for MyMTEch is the same username and password that is used to access on-campus computers and your Montana Tech e-mail account. To retrieve your username and password for MyMtech, follow these steps:

- Access MyMTEch by clicking on the MyMtech link on the top of the Montana Tech homepage.
- Click on "New User" at the top right of the page, under "Sign In on the MyMtech page".
- Use your Student ID number and last name to retrieve the username and password.
- Use the retrieved username and password to "Sign In with CAS" on the MyMTEch page.
- After logging in to MyMTEch, all of the courses in which you are enrolled will appear on the homepage under the "Moodle Learning" block. For fall students, these classes will appear in early August. Moodle is a web-based course management tool designed to enhance teaching and learning. Moodle allows easy access to course materials, assignments, tests and grades. Moodle also interfaces seamlessly with Blackboard Collaborate (our virtual classroom tool) providing the capability of video conferencing, chat and a virtual whiteboard. This system can be used to supplement the face-to-face curriculum or can be used for classes that are taught strictly online. How much or how little Moodle is used is left to the instructor's discretion.

There are detailed instructions on how to use Moodle at www.mtech.edu/cts/ (click Moodle in the left hand menu). If you have any trouble accessing MyMtech or Moodle, please contact the Campus Technology Services (CTS) Help Desk at 406-496-4244, ctshelpdesk@mtech.edu or drop by their offices

located in the Mining Geology Building, first floor Room 107. Office hours are Mon-Fri, 8:00am-5:00pm.

Revised August 2017

BUSINESS OFFICE - Montana Tech Business Services

General Information

- Located in MG 205 – North Campus
- Office Hours: 7:30-5:00
- Window Hours: 7:30-5:00
- Phone: (406) 496-4250, 1-800-445-TECH, Option #2
- Fax: (406) 496-4602
- Email: <mailto:BusinessServices@mtech.edu>

Services Provided

- Tuition and Fee Payment
- Check Cashing
- Disbursements of Financial Aid Refunds and Payroll
- NOTE: All check disbursements require a Montana Tech DiggerCard

Business Office Web Page:

<http://www.mtech.edu/administration/businessoffice/>

- Fee Schedules
- Answers to Frequently Asked Questions
- Link to Oredigger Web
- Link for tax information
- Contact to the Business Office

Fee Payment

- Bills will be available on Oredigger Web for all **pre-registered** students
- Balances are to be paid or a deferment contract signed (deferment fee \$30.00) to avoid a \$40 late fee
- Registration is not complete until your bill has been paid or a deferment contract has been signed (those in credit balance, must finalize on Oredigger Web).
- Payment Method
 - Cash
 - Check
 - Credit Cards: Visa, MasterCard, and Discover

Registration

You must enter the secure area on Orediggerweb to complete your registration by finalizing your charges, waive/accept your health insurance and pay your bill if you have a balance due.

Step 1

Go to: Montana Tech Home Page <http://www.mtech.edu/>

Step 2

In the top banner of the home page, select "OrediggerWeb"

Step 3

Enter Secure Area (You will need your single Login information)

Step 4

Select "Student Services & Financial Aid"

Step 5

Select "Student Records"

Step 6

Select "Account Detail for Term"

Step 7

Health Insurance options. You must choose an option to proceed. Students taking 7 or more credits are required to be covered by some type of medical insurance either private or through the university system.

Step 8

Select "Finalize/Pay Now"

- **IF** your balance is zero: you must select finalize now button. You should receive congratulations that you have finalized your fall semester.

- **IF** your account has a balance owing, you will be given the option to pay by credit card or electronic check. **Please pay AMOUNT DUE balance from Student Schedule/Bill.**

Please note credit cards used online will be charged a \$10 convenience fee.

You may also pay at the Business Office in the MG building or by mail: MT Tech Business Office, 1300 W Park St, Butte, MT 59701

Financial aid will not post to the student's account until their registration has been finalized.

If you have any questions please contact the Business Office at 406-496-4250.

Revised August 2017