APPENDIX I

Mentor Guidelines

I. Mentor Eligibility

Montana Tech faculty members, research faculty, and members of the Bureau of Mines and Geology are eligible to serve as mentors. It is expected that mentors will have some level of expertise in the student's chosen area of research or public health internship.

II. Connecting the Student Researcher and Mentor

There is no single prescription for pairing student researchers or research teams with a mentor. Mentors with an interest in sponsoring a URP are encouraged to recruit eligible students or student teams from their classes or other venues. If you want to cast a wider net, the URP committee (urp@mtech.edu) would be happy to help you brainstorm and recommend some of the many resources available.

Student or student teams may have a research idea they wish to pursue, or they may know a researcher with which they would like to work. Students are encouraged to solicit mentors for their projects.

In addition, mentors and students interested in conducting a URP or PHI are encouraged to attend the information sessions, which offer an opportunity to both students and mentors to form research partnerships.

Regardless of how the partnership is formed, the first task for the student researchers and mentors is to reach an agreement on the topic and scope for the URP. It is advised as a starting point that the mentor reviews the guidelines and requirements of the current URP with the student(s) they are intending to sponsor in order to clarify the commitments and responsibilities.

III. Proposal Preparation

Once a mentor and student have decided to work together on a URP project, the mentor is asked to provide support for the student in the preparation of a proposal. The URP website contains resources on preparing a competitive proposal, including examples of previously funded projects. Creating the research proposal is primarily the responsibility of the student. However, the creation of a URP proposal is intended to be a learning process with close interaction between student(s) and mentor(s).

Some specific areas might demand additional support from the mentor during the proposal writing process, including:

- For research that involves collaboration with external entities, serving as liaison in negotiating a letter of permission to be included with the proposal.
- The mentor can provide assistance in navigating the departmental processes for obtaining matching commitments for the project.
- Ensuring that the forms are complete, including initialing sections required of both the student and the mentor on the proposal cover sheet.
- If the students’ project requires the use of human subjects, provide guidance in obtaining Institutional Review Board (IRB) approval, perhaps even serving as a point of contact for the IRB Coordinator, Scott Risser, ext. 4845). More information on IRB requirements is available in Appendix H, IRB Approval.
- If potential safety concerns exist, the mentor can provide support by seeking the advice of Marilyn Cameron, Director of Environmental Health and Safety, as to whether the research project will require safety training for the student prior to commencement of the research.
IV. Research or Internship

With the mentor's guidance and supervision, students may begin their research as soon as they file the required scholarship paperwork. Two exceptions exist: (1) for projects involving human subjects, IRB approval is required; and (2) if health or safety issues have been identified, training needs to be completed prior to starting work. It is incumbent on the mentor to ensure that these requirements are satisfied before allowing the student to begin work.

By accepting the URP PHI award, the student researcher is committing to completing his or her research and presenting the results at the Montana Academy of Sciences (MAS) Annual Meeting or the MSU INBRE Conference, typically held in April. The mentor role is to:

- Meet regularly with their mentee to provide guidance and ensure that they continue to make progress.
- Periodically submit time cards, certifying that the student is making adequate progress.
- Assign a final grade for each semester of the URP PHI.

The mentor might also be called upon to assist with completing expense and travel forms in accordance with the project's approved budget (see Travel Instructions on the Undergraduate Research website for more information).

V. Course Credits and Workload

All students receiving URP grants are required to enroll in either “xxxx 390 Undergraduate Research” or “xxxx 490 Undergraduate Research,” with a minimum of 1 credit for any semester during which they are actively engaged in the project and expect to receive a scholarship.

It is the expectation at Montana Tech that a one-credit-hour class will require about 50 hours of effort over the semester.

To maintain a consistent experience and set of rewards for all the URP student researchers, mentors are encouraged to estimate the time commitment required for success. For a project expected to take 100 hours over two semesters, a reasonable solution is to award the student two one-credit URP classes over the academic year.

Larger projects are deserving of a greater number of credit hours, up to a maximum of 3 credits per semester, with a total of 6 credits per project. However, it is assumed that faculty-student interaction and student work hours will increase accordingly. Student researchers are encouraged to submit a team URP proposal if the scope of the project is substantial enough to reasonably justify a multi-student project.

VI. Presentation of Research Results

In advance of the MAS Annual Meeting in April, the mentor should guide the student in preparing a presentation. It might be useful to suggest a deadline two weeks or more prior to the URP fair date to ensure adequate time to practice and polish the presentation. The mentor is expected to attend the student's presentation at the MAS annual meeting and be prepared to ask pertinent questions and help answer questions from the audience.

Mentors have an opportunity to add value to the URP by encouraging their students to present their results at other venues, both on and off campus, and by contributing to a peer-reviewed paper. Examples of such opportunities include the National Conference on Undergraduate Research, Sigma Xi, and at conferences in their field of study. Mentors can help in this process by indentifying possible funding sources to assist with travel expenses to these events. Note that the URP committee will try to work with you to secure funding.

Off campus presentations may be considered in lieu of the MAS Annual Meeting if deemed...
adequate by the Undergraduate Research Program Committee; however, these requests are rarely granted. It is the responsibility of the Mentor to consult with the committee about the acceptability of the presentation venue and to ensure that the presentation is successfully carried out by the student.

VII. Final Grade
The mentor is responsible for assigning and reporting a final grade for the student. With the exception of extraordinary circumstances, incomplete projects or failure to present at the MAS Annual Meeting should result in the student being assigned a grade of “F” for the respective URP course.

IX. Mentor Stipends
Mentors are eligible to receive a $300 stipend per sponsored project. Stipends will be granted on the condition that both students and mentors adhere to the proposal and presentation directives detailed in the Undergraduate Research Program Guidelines. The stipend must be deposited into an individual or department IDC account as designated by the mentor. Funds in these accounts must be used in support of research (supplies, travel, etc.). Stipends are normally distributed by the Office of Sponsored Programs before the end of the fiscal year. After the end of the spring semester, the mentor may arrange to receive the stipend as additional compensation (taxes will be withheld) by completing a Non-Instruction Compensation Agreement (designating the appropriate IDC account as the source of the funds), securing the required signatures, and submitting it to the Office of Sponsored Programs for processing.