

Montana Tech Library Information Literacy Plan (In Review, Spring 2017)

Montana Tech Library Faculty interact with students daily in an environment of rapid technological change and proliferating information resources. Library Faculty (librarians) recognize the need to teach students a set of skills so they become **information literate**. This set of skills, developed by the American Library Association and used by the Association of College and Research Libraries, requires individuals “to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information.” ACRL notes that an information literate person is able to:

- Determine the extent of information needed
- Access the needed information effectively and efficiently
- Evaluate information and its sources critically
- Incorporate selected information into one’s knowledge base
- Use information effectively to accomplish a specific purpose
- Understand the economic, legal and social issues surrounding the use of information, and access and use the information ethically and legally

In order to meet the needs of students at varying skill levels and to prevent duplication, Montana Tech librarians have developed an *Information Literacy Plan*. This includes dynamic guidelines for providing instruction to students with varying degrees of library familiarity and research experience.

What is Information Competency?

- The ability to articulate one’s information needs.
- The ability to identify, locate, access, and evaluate appropriate sources of information to meet the information need
- The ability to effectively use information resources, regardless of format
- The ability to critically and ethically apply the information
- The ability to determine if the need has been adequately met

Adapted from Philadelphia University Information Literacy Project

Why Information Literacy is Important to Tech

An Information Literacy Program (IL, ILP) will provide a means for librarians to collaborate with faculty to identify which IL skills their students need and how those skills will enhance students' ability to produce quality assignments.

As Tech students gain a working knowledge of the research process and information literacy, they will help support the mission of Montana Tech to supply “knowledge and education through a strong undergraduate curriculum.”

An ILP will benefit the Tech campus by contributing to NWCCU accreditation. An ILP will help to fulfill Standard 5.B.2- where “library and information resources and services contribute to developing the ability of students, faculty and staff to use the resources independently and effectively.”

The practical importance of IL is illustrated by the ACS curriculum requirement that all chemistry majors complete a 2-credit chemistry literature course. This course is co-taught annually by librarians and chemistry faculty. Library Faculty also teach numerous individual library sessions, but there is little comprehensive integration of IL into the general curriculum. Numerous colleges and universities have implemented IL into their curriculum, and Montana Tech librarians believe that an IL program will benefit Tech.

This iteration of the ILP defines three class formats that can be customized according to the specific course in which they are being delivered. For example, a journalism class might be identical in every other respect to the generic course, but with an emphasis on newspaper and primary source databases rather than general examples. The three class formats include a class representing basic information literacy in a research context, a class representing intermediate information literacy which expands upon and further explores concepts introduced in the basic offering, and an advanced information literacy class targeting advanced library users and grad students. The three classes, designed around research, are intended to apply to the specific level of any given course. As many students received library instruction several times, these three classes are also intended to provide information suitable to a student's first, second, or third encounter with library instruction. A fourth independent lecture covering general information literacy and evaluation is being developed and tested during the spring 2017 semester, with finalized content and strategies to be added to this document during summer 2017.

Montana Tech Information Literacy Plan-(goals and objectives are in no particular order and are subject to change)

Overview- The Montana Tech Information Literacy Program seeks to provide students with a working knowledge of the research process and provide them with the insights and experience needed to develop sound information evaluation skills. In doing so, the Montana Tech Library contributes to institutional goals of encouraging lifelong learning and critical thinking.

The library is willing and committed to working with faculty to create information competency classes that complement their syllabi and courses. All parties—students, faculty and the library—will benefit from this collaboration. Students will gain information literacy skills, faculty will see an increase in research and writing skills, and the library can better address student and faculty information literacy needs.

Goal- Provide in-person information literacy instruction to Montana Tech students.

Strategy- Engage academic departments and make clear library availability for customizable instruction, demonstrating the value of information literacy in the process.

Objective- Provide excellent and responsive instruction to faculty who use the library. Earn good will and establish a partnership that faculty consider beneficial to their courses, so that they continue to utilize and promote the library in future semesters.

Goal- Assess information literacy resources and instruction.

Strategy- Develop tools to evaluate and assess information literacy instruction.

Objective- Experiment with assessment tools and methods. Distribute assessment forms to students during sessions, and/or solicit assessment from instructors when library involvement has been concluded for the semester.

Goal- Expand information literacy instruction beyond “one-shot” sessions.

Strategy- Integrate library resources (faculty, databases, etc.) into academic courses and departmental operations.

Objective- Become integrated into the Tech Success curriculum, where librarians can reach vulnerable students (academic probation) and provide academic confidence and competence through information instruction.

Goal- Expose students to information literacy principles through general library operation

Strategy- See library services and outlets (customer service, reference service, social media, etc.) as opportunities to promote sound information literacy principles.

Objective- Use social media to produce and share content relating to information literacy and its applications in day-to-day experience.

Information Literacy Classes

Basic Literacy (Library First Encounter)

Introduction to the Physical Library

At this level, a session will introduce students to basic library offerings and provide them with basic strategies to employ those resources.

Instructors will:

- Introduce students to the physical library, and the tools necessary for its use (catalog searching, call numbers, building layout, technologies offered).

Students will:

- Become familiar with the library building, its location on campus, and the general layout.
- Identify information resources held by the library (serials, books, media, maps, etc.).
- Become knowledgeable about library services (circulation, reference, technology).
- Become familiar with the instructing librarian, and establish their role as a contact and resource for the future.

Electronic Resources

Sessions at this level will introduce students to a general database and electronic journals.

Instructors will:

- Briefly explain the importance of information evaluation, particularly in online environments. Explore ideas of authority, currency, reliability, etc. Discuss citations.
- Introduce students to the concept of e-resources and databases. Includes brief discussion of peer review (continuing evaluation concepts) and the nature of academic publishing.
- Introduce and demonstrate basic keyword searching and database navigation.

Students will:

- Establish/refine a research question.
- Identify and expand upon possible keywords.
- Evaluate results based on article titles, abstracts, and associated terms.
- Successfully navigate an appropriate library database (typically Academic Search Complete) and locate a full-text resource relevant to their research/interests.
- Become aware of the various electronic information sources available to them as Montana Tech students, and become familiar with means of access.

Intermediate Literacy (Library Second Encounter)

Search Strategies

This session will guide students as they refine research skills and build upon ideas introduced in the basic offering.

Instructors will:

- Explore initial search strategies and demonstrate how dynamic researchers adjust based on results, experience, and suggested keywords to evaluate initial research questions.
- Introduce Boolean concepts and expose search engine “tips and tricks”—quotation marks, advanced Google (pdf, white papers), Google Scholar.
- Explore non-general databases (STEM: ScienceDirect, Chemistry: SciFinder, etc.).
- Demonstrate library/database citation tools while educating students on the risks and merits of computer generated citations.

Students will:

- Deconstruct and explore the building blocks of searching—designing good research questions, populating search terms, finding “clues” on article pages for search direction.
- Understand how to interact with computer interfaces to find human knowledge (Boolean operators, subject specific vocabulary, frustration mitigation).
- Generate initial search terms and devise strategies for expanding search term lists.
- Accrue experience searching in a non-general database (ScienceDirect, ERIC, etc.)
- Retrieve full-text sources from subject appropriate databases, using provided tools.
- Check for citation accuracy and full-text access through Google Scholar.

Evaluating Information (if students have not been exposed to InfoLit class)

Students will:

- Evaluate resources using various criteria such as authority, purpose, and evidence.
- Discuss the standards of expectation for various sources (blogs, journals, news, etc.).
- Identify strategies for evaluating websites.

Citations

Students will:

- Identify resources (style guides, websites, database tools) that support the citation format prescribed by the course instructor.
- Recognize the library as a resource for citation support.

Advanced Literacy (Library Third Encounter)

Advanced Search Strategies

Instructors will:

- Review and refine advanced search strategies (Boolean operators, database “clues,” and/or/not, advanced Google).

Students will:

- Demonstrate understanding of Boolean operators.
- Recognize the need to broaden/narrow a search, and demonstrate the ability to do so.
- Demonstrate knowledge of subject specific databases and the associated tools.

Citation Management

Instructors will:

- Explore idea of “Scholarly Conversation” (from ACRL framework) and the contribution of advanced/graduate research.
- Introduce concept and practice of literature reviews.
- Demonstrate utility of a reference management tool (EndNote, Mendeley).

Students will:

- Access EndNote/Mendeley and create their own account.
- Export/Import database references directly into their reference manager.
- Populate a bibliography from reference manager.
- Demonstrate understanding of additional features, such as “Write-and-Cite.”

Inter-Library Loan

Instructors will:

- Explain concept of inter-library loan (ILL).
- Direct students to ILL portal.

Students will:

- Register an ILL account.
- Demonstrate understanding of services offered and resources available.

Instruction Request Form

Faculty may use this form to request tailored library instruction, based on desired outcomes and integration of pre-defined assignments.

General library outcomes:

Students will:

- Become familiar with library building, services, and resources.
- Effectively navigate library webpage and Primo search.
- Be aware of physical offerings (journals, books) and their strengths/limitations.
- Understand wealth of e-resources available.
- Establish a library contact (instructor).
- Recognize advance library tools/services (citation management, interlibrary loan).

Assignment specific outcomes (source gathering):

Students will:

- Determine individual research question.
- Generate multiple keywords/search terms and populate alternatives.
- Become familiar with a general database and common database interface features.
- Identify a subject specific database appropriate to their topic (may be general).
- Identify appropriate resource types (government statistics, review articles, etc.).
- Input searches with appropriate limiters (full-text, scholarly sources on or off).
- Evaluate results for suitability, adjusting search terms where necessary.
- Retrieve full-text resources relevant to original topic of study.

Information Literacy outcomes:

Students will:

- Understand the standards and expectations of the diverse information sources they encounter (journals, textbooks, social media, blogs, newspapers, cable news, etc.).
- Have a basic framework for the evaluation of information (Author-Purpose-Evidence).
- Discuss their personal standards for different information contexts and each information purpose—INFORM, PERSUADE, SELL, or ENTERTAIN.
- Identify information literacy challenges: circular reporting, clickbait, logical fallacies, “fake news,” aggregators, satire, etc.
- Explore, evaluate, and discuss examples of these challenges.
- Evaluate peer-reviewed citations for suitability (currency, appropriate level, regional relevance, article type).
- Understand value and function of citations in the works they read and works they produce.

Assessment Tools

Student Assessment

1. What is one thing you learned that you plan to use in the future?
2. What is one thing you still have questions about?
3. Did you feel the library session was worthwhile?
4. Comments:

Name of Instructor:

Name of Librarian:

Date:

Faculty Assessment

1. Librarian:
2. Course name:
3. Did the quality of the librarian's instruction meet your expectations?
4. Did you notice an improvement in student research quality and confidence?
5. Please indicate whether or not the library instruction session(s) had an impact on the quality of your students' research assignment(s). Examples of impact might include:
 - Evidence of improved critical thinking skills in information selection and use
 - Improved quality and relevance of materials cited
 - Sources cited correctly
6. Are there any changes/additions you would like to see in library instruction?
7. Comments: