



University at Buffalo

Department of
Information Science

Graduate School of Education

We acknowledge the land on which the University at Buffalo operates, is the territory of the Seneca Nation, a member of the Haudenosaunee/Six Nations Confederacy.

LIS 575: Introduction to Research Methods



Thomas Rowlandson, *View of the Observatory, Oxford*, 1810.

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Instructor Information

Instructor: Samuel Dodson, Ph.D. ([he/him/his](#))
 Office Location: 524 Baldy Hall (North Campus)
 E-mail: smdodson@buffalo.edu
 Phone: (716) 645-1488
 Office Hours: By appointment

Course Information

Program: Information and Library Science
 Semester: Spring 2025
 Dates: 1/22/2025–5/6/2025
 Credits: 3
 Type of Instruction: Lecture
 Delivery Mode: Online
 Location: Remote
 Learning Management System: [UB Learns](#)
 Course Prerequisites: None

This course satisfies the *Research Methods* category of the [Plan of Study](#). As per the [Handbook](#), successful completion of this course is defined as completion with a grade of B

or better.

Course Description

Study of research, problem-solving, and evaluation of services in library, media and information environments. Students will learn to identify and define problems requiring systematic analysis and to review, evaluate, synthesize, appreciate, and use existing reports of research. Study includes librarianship and the philosophy of science, theory and hypothesis testing. Problems include evaluation of circulation, effectiveness, collections and overlap, online services, budgeting allocation, status of librarians, salaries, citation analysis, bibliometrics. Not a statistics course; background in mathematics and statistics is not required.

Learning Outcomes

Upon completion of this course, students will be able to:

- Describe the purposes, concepts and principles of research in library and information science;
- Develop research questions about the theory and practice of library and information science;
- Compare and select methods for answering research questions;
- Demonstrate an understanding of the research process by preparing a research proposal to study a user-centered problem in library and information science;
- Evaluate the research of library and information science; and
- Understand how research and assessment results can be applied to improve practice.

This course addresses the following Master of Science in Information and Library Science (MS ILS) [program goals](#):

1. Graduates demonstrate theoretical and conceptual understanding of information science, including the creation, representation, organization, retrieval, dissemination, use and curation of information.
2. Graduates are prepared to apply disciplinary knowledge and skills in a variety of information contexts.

3. Graduates demonstrate professional competences, including leadership, critical and analytical thinking, research, communication, collaboration, cultural competence, reflective practice, and adherence to professional ethics.
4. Graduates demonstrate values, attitudes and behaviors that are essential for information and library professionals, including diversity, equity and inclusion.

Mode of Instruction

This is a remote and asynchronous course. All course materials will be available through UB Learns, [UB Libraries](#), or the Web.

The objectives for this course will be accomplished through the following:

- Instructional video lectures;
- Readings from the textbook, book chapters, journal articles, and conference papers; and
- Individual assignments.

The course and Week 1 will begin on the first day of the semester. Each subsequent week will commence on Monday at 9:00 AM EST / EDT, except for [holidays officially observed by the University and Fall / Spring Break](#). Weekly course materials will be available on UB Learns at the beginning of each week. Weekly activities should be completed six days later, on Sunday at 11:59 PM.

Course Technologies & Required Technology Skills

You must have a UBITName to log in to UB Learns and access the course materials. If you do not have a UBITName, please contact the [UB Information Technology \(UBIT\) Help Center](#) at (716) 645-3542 or ubithelp@buffalo.edu.

Reliable access to the Web on a device capable of accessing UB Learns is required. A detailed description of course technology requirements may be found in the [Minimum Computer Recommendations for Students](#).

For general questions about course technologies, please contact the UBIT Help Center. For questions about UB Learns, please see [Brightspace Guides for Students](#). You can contact UB Learns at (716) 645-6188 or ublearns@buffalo.edu.

You are expected to have [Prerequisite Technology Skills](#). It is your responsibility to gain proficiency to successfully complete the course objectives and assignments.

The University at Buffalo provides students with free licenses for a number of software programs, including Microsoft 365. Please visit <http://www.buffalo.edu/ubit/service-guides/software.html> for more information.

University Libraries

You have full access to the [University Libraries](#) resources and services. This includes online access to many full-text databases, such as: [Library Literature & Information Science](#) and [Library, Information Science & Technology Abstracts](#). Additionally, you may request physical and electronic materials through the [Delivery+](#) service. For specialized assistance, [Molly Dahl Poremski](#), the Information Science subject librarian, is available by phone at (716) 645-7750 or by e-mail at poremski@buffalo.edu. For general reference questions, you may also use the [Instant Librarian](#) service.

Course Assignments

| <i>Assignment</i> | <i>Due Date</i> | <i>Weight</i> | <i>MS ILS Goals</i> |
|---|-------------------------|---------------|---------------------|
| Assignment 1: Research Problem & Question(s) | February 16 (Week 4) | 10% | 1, 2, 3 |
| Mini Assignment 1: Questionnaire | March 9 (Week 7) | 5% | 1, 2, 3 |
| Assignment 2: Structured Summaries | March 30 (Week 9) | 35% | 1, 2, 3 |
| Mini Assignment 2: Cover Letter & Informed Consent Form | April 20 (Week 12) | 5% | 1, 2, 3 |
| Assignment 3: Research Design | May 4 (Week 14) | 40% | 1, 2, 3, 4 |
| Participation | Throughout the semester | 5% | 1, 2, 3, 4 |

Grading Policy

This course uses a letter grading system. Grades for this course will be similar to assessments of performance in a typical workplace:

- A = Outstanding,

- B = Meets expectations,
- C = Needs improvement,
- D = Unacceptable quality, and
- F = No effort to perform in the course.

For each letter grade, a plus (+) or minus (–) may be used.

You are expected to submit assignments to UB Learns by the due date. A 5% penalty will be applied for each day an assignment is late. For example, if an assignment is submitted one day late, the grade will be reduced by 5% (e.g., A– to B+). If the assignment is submitted two days late, the grade will be reduced by 10% (e.g., A– to B–). No submissions will be accepted more than one week after the due date.

Assignment feedback and grades will be posted throughout the semester in UB Learns. Final grades will be available through the [HUB Student Center](#).

The assignment of an incomplete grade (I) is at my discretion, and is only given in exceptional circumstances. Furthermore, you must have a passing average in coursework already completed. You must make a request for an incomplete grade in writing with me before the last day of final examinations. A detailed description of an interim grade of incomplete may be found in the [Graduate Incomplete Policy](#).

Weekly Course Schedule

You are responsible for completing all readings by the dates noted in the course schedule:

| <i>Date</i> | <i>Topic</i> | <i>Required & Recommended Materials</i> |
|----------------------|--------------|---|
| Week 1 Jan. 22–26 | Introduction | <p><i>Nota bene:</i> All Research Seminar recordings are available at: https://ed.buffalo.edu/information/research/seminar-series/archive.html.</p> <p style="text-align: center;"><i>Required</i></p> <p>Leedy, P. & Ormrod, J. (2019). The nature and tools of research. In <i>Practical research: Planning and design</i> (12th ed., ch. 1, pp. 1–29). Pearson.</p> <p style="text-align: center;"><i>Research Seminar Recording</i></p> <p>Detlor, B. (2013, November 14). <i>Helping libraries</i></p> |

conduct research [Video]. Retrieved from <https://ub.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=5e9e0b19-cb72-48c5-9249-a8e20057a6b9>

| Week 2 Jan. 27–Feb. 2 | Research in Library and Information Science | <i>Required</i> |
|--------------------------|--|---|
| | | <p>Hernon, P., Dugan, R. E., & Matthews, J. R. (2014). Evaluation. In <i>Getting started with evaluation</i> (ch. 1, pp. 1–16). American Library Association.</p> <p>Hernon, P., Dugan, R. E., & Matthews, J. R. (2014). Evidence-based planning and decision making. In <i>Getting started with evaluation</i> (ch. 2, pp. 17–32). American Library Association.</p> <p>Hernon, P., Dugan, R. E., & Matthews, J. R. (2014). Library metrics. In <i>Getting started with evaluation</i> (ch. 3, pp. 33–48). American Library Association.</p> |
| | | <i>Research Seminar Recording</i> |
| | | <p>Radford, M. L. (2016, March 3). “I’ve already Googled it and I can’t understand it”: Users’ perceptions of virtual references & social Q&A [Video]. Retrieved from https://ub.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=23b29a6c-6721-4154-9f63-a8e20098eb2d</p> |

| Week 3 Feb. 3–9 | Problem Statements, Theoretical Frameworks, & Literature Reviews | <i>Required</i> |
|--------------------|---|---|
| | | <p>Hernon, P., & Schwartz, C. (2008). What is a problem statement? <i>Library & Information Science Research</i>, 29(3), 307–309. https://doi.org/10.1016/j.lisr.2007.06.001</p> <p>Leedy, P. & Ormrod, J. (2019). The problem: The heart of the research process. In <i>Practical</i></p> |

research: Planning and design (12th ed., ch. 2, pp. 30–57). Pearson.

Leedy, P. & Ormrod, J. (2019). Review of the related literature. In *Practical research: Planning and design* (12th ed., ch. 3, pp. 58–81). Pearson.

Research Seminar Recording

Magee, R. M. (2020, February 24). *Incorporating multiple perspectives into the design of youth co-research: Listening to teens, library staff and researchers* [Video]. Retrieved from <https://ub.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=83342f06-4b0e-4376-98b0-aaf501379178>

Recommended

Hartel, J. (2019). Turn, turn, turn. In *Proceedings of the Tenth International Conference on Conceptions of Library and Information Science. Information Research*, 24(4). <http://informationr.net/ir/24-4/colis/colis1901.html>

Week 4
Feb. 10–16

Research
Design

Nota bene: Assignment 1 is due by the end of the week.

Required

Leedy, P. & Ormrod, J. (2019). Planning your research project. In *Practical research: Planning and design* (12th ed., ch. 4, pp. 82–124). Pearson.

Leedy, P. & Ormrod, J. (2019). Writing the research proposal. In *Practical research: Planning and design* (12th ed., ch. 5, pp. 125–145). Pearson.

Research Seminar Recording

Agosto, D. (2022, March 8). “We were beaten down”: *Parents’ perspectives on benefit and risks of*

children's digital media use [Video]. Retrieved from https://youtu.be/MhZoEMD5_nA

Recommended

Eldredge, Jonathan D. (2004). Inventory of research methods for librarianship and informatics. *Journal of the Medical Library Association* 92(1), 83-90. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC314107/>

Week 5
Feb. 17-23

Qualitative
Methods

Required

Leedy, P. & Ormrod, J. (2019). Qualitative research methods. In *Practical research: Planning and design* (12th ed., ch. 8, pp. 228-258). Pearson.

Research Seminar Recording

Hartel, J. (2016, April 26). *Pictorial metaphors for information* [Video]. Retrieved from <https://ub.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=7b5d5646-a2ad-4214-8863-a8e200a6aa3d>

Recommended

Ryan, F., Coughlan, M., & Cronin, P. (2007). Step-by-step guide to critiquing research. Part 2: Qualitative research. *British Journal of Nursing*, 16(12), 738-744. <https://doi.org/10.12968/bjon.2007.16.12.23726>

Week 6
Feb. 24-Mar. 2

Quantitative
Methods

Required

Leedy, P. & Ormrod, J. (2019). Descriptive research. In *Practical research: Planning and design* (12th ed., ch. 6, pp. 146-191). Pearson.

Leedy, P. & Ormrod, J. (2019). Experimental, Quasi-

experimental, and *ex post facto* designs. In *Practical research: Planning and design* (12th ed., ch. 7, pp. 192–227). Pearson.

Research Seminar Recording

O'Brien, H. L. (2015, November 11). *Evaluating concepts, evaluating measures: The case of the User Engagement Scale* [Video]. Retrieved from <https://ub.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=eb9c71fc-f203-4d8f-a2ca-a8e200867d9a>

Recommended

Coughlan, M., Cronin, P., & Ryan, F. (2007). Step-by-step guide to critiquing research. Part 1: Quantitative research. *British Journal of Nursing*, 16(11), 658–663. <https://doi.org/10.12968/bjon.2007.16.11.23681>

Week 7
Mar. 3–9

Action
Research &
Mixed
Methods

Nota bene: Mini Assignment 1 is due by the end of the week.

Required

Leedy, P. & Ormrod, J. (2019). Mixed-methods designs. In *Practical research: Planning and design* (12th ed., ch. 9, pp. 259–279). Pearson.

Leedy, P. & Ormrod, J. (2019). Action research and participatory designs. In *Practical research: Planning and design* (12th ed., ch. 10, 280–302). Pearson.

Research Seminar Recording

Genuis, S. K. (2014, September 24). *Working with youth co-researchers: Promoting personal and community engagement with health information* [Video]. Retrieved from <https://ub.hosted>.

panopto.com/Panopto/Pages/Viewer.aspx?id=6b0f2c81-2457-4d27-af81-a8e2005ba24f

Recommended

Boyd, M. R. (2014). Community-based research: Understanding the principles, practices, challenges, and rationale. In P. Leavy (Ed.), *The Oxford handbook of qualitative research* (pp. 498–517). Oxford University Press.

→PDF available on UB Learns.

Week 8
Mar. 10–16

Ethics

Required

Wallace, D. & Fleet, C. (2012). Ethics and politics in library and information science research and evaluation. In *Knowledge into action: Research and evaluation in library and information science* (ch. 3, pp. 67–96). Libraries Unlimited.

→PDF available on UB Learns.

Research Seminar Recording

Olsson, M. (2017, November 2). *Making sense of the past: The information practices of field archaeologists* [Video]. Retrieved from <https://ub.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=852bf652-0dd1-4e23-93ec-a8e2010db4f8>

Recommended

Traianou, A. (2014). The centrality of ethics in qualitative research. In P. Leavy (Ed.), *The Oxford handbook of qualitative research* (pp. 62–77). Oxford University Press.

→PDF available on UB Learns.

National Commission for the Protection of Human

Subjects of Biomedical and Behavioral Research. (1979). *The Belmont report: Ethical principles and guidelines for the protection of human subjects of research*. U.S. Department of Health and Human Services. Retrieved from <https://www.hhs.gov/ohrp/regulations-and-policy/belmont-report/read-the-belmont-report/index.html>

| | | |
|---------------------------|-------------------------------|---|
| Mar. 17–23 | No Class (Spring Break) | No readings. |
| Week 9 Mar. 24–30 | Qualitative Data Analysis | <p><i>Nota bene:</i> Assignment 2 is due by the end of the week.</p> <p style="text-align: center;"><u>Required</u></p> <p>Leedy, P. & Ormrod, J. (2019). Analyzing qualitative and mixed-methods data. In <i>Practical research: Planning and design</i> (12th ed., ch. 12, pp. 344–371). Pearson.</p> <p style="text-align: center;"><i>Research Seminar Recording</i></p> <p>Spiteri, L. (2017, April 26). <i>In the readers' own words: How user content in the catalogue can enhance readers' advisory service</i> [Video]. Retrieved from https://ub.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=f41a9995-0adb-4e62-b0ef-a8e200e95da8</p> |
| Week 10 Mar. 31–Apr. 6 | Quantitative Data Analysis | <p style="text-align: center;"><u>Required</u></p> <p>Leedy, P. & Ormrod, J. (2019). Analyzing quantitative data. In <i>Practical research: Planning and design</i> (12th ed., ch. 11, pp. 303–343). Pearson.</p> <p style="text-align: center;"><i>Research Seminar Recording</i></p> <p>Gruzd, A. (2016, September 28). <i>Studying online</i></p> |

interactions using social network analysis [Video]. Retrieved from <https://ub.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=cf0ecb95-a115-4505-9f24-a8e200b9c3aa>

Recommended

Byrne, G. (2007). A statistical primer: Understanding descriptive and inferential statistics. *Evidence Based Library and Information Practice*, 2(1), 32–47.
<https://journals.library.ualberta.ca/ebliip/index.php/EBLIP/article/view/168/239>

Week 11
Apr. 7–13

Project
Management

Required

Wells, K., and Kloppenborg, T. (2018). *Project management essentials* (2nd ed.). Business Experts Press.

Research Seminar Recording

Nagasawa, T. (2015, February 24). *Building collaboration between faculty and librarians in university education* [Video]. Retrieved from <https://ub.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=ff534d04-b113-4f87-a506-a8e200626c7f>

Week 12
Apr. 14–20

Anti-
colonialism &
Anti-racism
Research

Nota bene: Mini Assignment 2 is due by the end of the week.

Required

Datta, R. (2018). Decolonizing both researcher and research and its effectiveness in Indigenous research. *Research Ethics*, 14(2), 1–24.
<https://doi.org/10.1177/1747016117733296>

Dei, G. J. S. (2005). Chapter one: Critical issues in

anti-racist research methodologies: An introduction. *Counterpoints*, 252, 1-27.
<http://www.jstor.org/stable/42978742>

Research Seminar Recording

Shiri, A. (2020, November 20). *Inuvialuit voices: Integrating digital storytelling in digital libraries for cultural heritage preservation and access* [Video]. Retrieved from <https://youtu.be/Ao50AZw9igs>

Recommended

Smith, L. T. (2021). *Decolonizing methodologies: Research and Indigenous peoples* (3rd ed.). Bloomsbury Publishing.

| | | |
|-----------------------|---------------------------|--|
| Week 13 Apr. 21-27 | Disseminating Research | <i>Required</i> |
| | | Leedy, P. & Ormrod, J. (2019). Planning and preparing a final research report. In <i>Practical research: Planning and design</i> (12th ed., ch. 13, pp. 372-397). Pearson. |

Research Seminar Recording

Wolfram, D. (2022, February 8). *Scholarly communication practices in the open science era: We still have work to do* [Video]. Retrieved from <https://youtu.be/TMWIWIWJ7A7dY>

| | | |
|---------------------------|--|---|
| Week 14 Apr. 28-May. 4 | No Class (Final Project Preparation) | <i>Nota bene:</i> Assignment 3 is due by the end of the week. No readings. |
|---------------------------|--|---|

Required Course Materials

The primary text, *Practical research: Planning and design* by Leedy and Ormrod (2019), is available in digital (~\$10 per month) and print (~\$70) formats from Pearson, the

publisher. However, you may find a better deal from your preferred bookseller.

All other course materials will be freely available through UB Learns, UB Libraries, or the Web. The required and recommended readings are listed in the course schedule.

Course Communication

I endeavor to create a learning environment in which people of all identities are welcomed and supported. I ask you to, optionally, share your pronouns and preferred chosen name with me at the beginning of the semester. Similarly, you can update your [pronouns and gender identity](#) and [preferred chosen name](#) in the HUB Student Center.

I encourage you to actively participate in the UB Learns discussion forum throughout the semester. You will find that reading your peers' posts and writing your own will be beneficial to your understanding of the course materials. I read all discussion forum posts, but am not always able to respond. In this class, you are expected to engage in respectful communication. I will not tolerate any form of disrespect directed towards anyone in the class.

If you have any questions or comments about the course, please do not hesitate to contact me. Because this is an asynchronous online course, I prefer to communicate by e-mail. All messages sent to me should come from your @buffalo.edu e-mail address. When contacting me, please include the course number in the subject of your e-mail. I will do my best to respond to you within 48 hours between Monday at 9:00 AM and Friday at 5:00 PM.

Course Evaluation

Course evaluations are an important part of the University's commitment to academic excellence. Once you complete the course, you will receive an e-mail from [UB Course Evaluations](#) notifying you that course evaluations are open. When you complete a course evaluation, you give me the tools to strengthen the course offerings and improve student learning. I cannot see individual responses; I receive a summary report that compiles responses across all students in the class. I do not receive a copy of the report until after grades have been submitted.

Academic Integrity

The University is founded on civility, honesty, and integrity. As a member of the community, you are expected to understand and follow the codes of conduct regarding academic integrity. [Academic integrity](#) is critical to the learning process. It is your responsibility to work in an honest fashion, upholding my expectations. The goal is to ensure that students learn in accordance with the University's academic integrity

principles, regardless of whether instruction is in-person or remote. The use of any tools, including artificial intelligence-based large language models (e.g., ChatGPT), to produce whole or parts of assignments in this course is prohibited. Thank you for upholding your integrity and ensuring the University's tradition of academic excellence. A detailed description of academic integrity, including the University's policies and procedures, may be found in the [Graduate Academic Integrity Policy](#).

Accessibility Policies and Services

The University is committed to providing equal access to individuals with disabilities, in part, through [Accessibility Resources](#). If you have any disability which requires reasonable accommodations to enable you to participate in this course, please contact the Office of Accessibility Resources and also me during the first week of class. It is your responsibility to make a request for academic accommodation with Accessibility Resources:

Accessibility Resources

University at Buffalo

60 Capen Hall (North Campus)

Buffalo, NY 14260

Phone: (716) 645-2608

Web: <https://www.buffalo.edu/studentlife/who-we-are/departments/accessibility.html>

Accessibility Resources will review appropriate arrangements for reasonable accommodations. If Accessibility Resources determines a request is reasonable, a memorandum describing the recommended academic adjustments or auxiliary aids will be issued. It is your responsibility to provide the memorandum to me and to arrange to meet with me regarding implementation of the recommendations. I may contact Accessibility Resources for consultation if there are any questions or concerns about a recommendation.

Student Success and Wellbeing Policies and Services

The University provides resources to support student learning and wellbeing. You can learn more about these programs and services by contacting:

Counseling Services

University at Buffalo

120 Richmond Quadrangle (North Campus)

Buffalo, NY 14261

Phone: (716) 645-2720

Web: <https://www.buffalo.edu/studentlife/who-we-are/departments/counseling.html>

Health Promotion

University at Buffalo
114 Student Union (North Campus)
Buffalo, NY 14260
Phone: (716) 645-2837
Web: <https://www.buffalo.edu/studentlife/who-we-are/departments/health-promotion.html>

Health Services

University at Buffalo
Michael Hall, 3435 Main Street (South Campus)
Buffalo, NY 14214
Phone: (716) 829-3316
Web: <https://www.buffalo.edu/studentlife/who-we-are/departments/health.html>

The University values and respects all members of the community. Harassment and discrimination are not tolerated. A detailed description of discrimination and harassment may be found in the [Discrimination and Harassment Policy](#).

The University provides appropriate accommodation for religious and cultural observances. Students who require a religious accommodation should make the request directly to me. A detailed description of religious accommodation may be found in the [Religious Accommodation and Expression Policy](#).

If you have experienced violence or harassment on the basis of sex or gender, the University has resources to help. For more information, please contact the Title IX Coordinator:

Office of Equity, Diversity and Inclusion

University at Buffalo
406 Capen Hall (North Campus)
Buffalo, New York 14260
Phone: (716) 645-2266
Web: <https://www.buffalo.edu/equity/obtaining-assistance/sex-discrimination-and-sexual-harassment/title-ix.html>

For confidential assistance, you may also contact a Crisis Services Campus Advocate at (716) 796-4399.

University at Buffalo faculty are mandated to report violence or harassment on the basis of sex or gender. This means that if you tell me about a situation involving violence or harassment, I will need to report it to the Office of Equity, Diversity and Inclusion. If you do not wish to have the University proceed with an investigation, your request will be honored unless the University's failure to act does not adequately mitigate the risk of harm to you or other members of the community. You also have the option of speaking with trained counselors who can maintain confidentiality. A full explanation of the resources and services available may be found in the [Options for Confidentially Disclosing Sexual Violence](#).