OVERVIEW/INTRODUCTION

Research is a significant feature of information work. We often become a part of larger research teams conducting research studies. We also assist others in conducting research, read research studies to improve practice, engage in research to evaluate tools and services, and use research in reports, funding requests, and requests for proposals. Our field relies on a base of evidence generated out of research projects.

Information professionals are both producers and consumers of research. As responsible professionals it is important that we have the ability to weigh the evidence presented to us and to apply findings appropriately in our respective information settings. We also design, implement, and report our research studies as part of our work responsibilities to develop innovative systems and tools. Research helps us realize the missions of our institutions and organizations.

This course is designed to help you to understand how to design, implement, evaluate, and consume research.

Learning Objectives

At the conclusion of this course, students will be able to:

1. Read and critique research studies in the field of information;
2. Use evidence in research studies to develop or improve tools and services;
3. Conduct research studies (ask research questions, formulate study designs appropriate for answering those questions, collect and analyze data, write up results).

GRADING, ASSIGNMENTS, READINGS, and RESOURCES

The course will be primarily lecture with group discussion. You will be expected to complete readings and assignments prior to each class.
Grading

Grades will be based on class attendance and participation as well as a series of assignments as follows:

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Due Date</th>
<th>Percent of Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participation in class; Class attendance</td>
<td>Ongoing</td>
<td>15%</td>
</tr>
<tr>
<td>Online Evaluation of studies</td>
<td>Ongoing</td>
<td>10%</td>
</tr>
<tr>
<td>Research Questions</td>
<td>February 18</td>
<td>5%</td>
</tr>
<tr>
<td>Research Design: What do you think are the</td>
<td>February 25</td>
<td>10%</td>
</tr>
<tr>
<td>most appropriate methods for your research questions?</td>
<td></td>
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</tr>
<tr>
<td>Sampling frame and implementation design for your survey</td>
<td>March 11</td>
<td>10%</td>
</tr>
<tr>
<td>Survey and Interview Questions</td>
<td>March 25</td>
<td>10%</td>
</tr>
<tr>
<td>Experimental design</td>
<td>April 15</td>
<td>10%</td>
</tr>
<tr>
<td>Statistical tests for your survey questions</td>
<td>April 29</td>
<td>10%</td>
</tr>
<tr>
<td>Research Proposal</td>
<td>May 10</td>
<td>20%</td>
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Assignments

Instructions for assignments will be handed out separately. All assignments should be turned in via Canvas. Assignments should be uploaded in .pdf format. Name the file with your surname and the assignment name; example: punzalan_surveyquestions.pdf.

Class Participation

Participation includes speaking up in class with comments and questions as well as posting on the class online discussion form. You are required to post at least two (2) responses to other comments on the Canvas discussion forum over the course of the semester. I encourage students to participate in class and online frequently to keep the discussion going.

Online Evaluation of Studies

Throughout the course of the term students will be required to post two (2) original postings to the Canvas discussion forum based on assigned readings (from at least 2 different weeks). Each student will analyze and critique 2 different research papers based on the prompts located on Canvas.

The papers available to critique are the example papers (not background reading) from Weeks 2 – 13. To sign up for the papers you would like to critique, email the instructor with
three papers from different weeks that you would be interested in. The instructor will assign students to papers according to their preference. A maximum of 4 students will be assigned to any one paper.

Readings and Preparation

Readings are on Canvas or links on the World Wide Web. Students are expected to read all assigned materials and complete tutorial sessions prior to each class session and come prepared with questions and concerns that you can raise in the lecture.

A majority of the readings will be from the following sources:


There are also other readings that incorporate the topic or methods being discussed. All readings are available on the class site and many have links in the syllabus.

Resources

Weekly lecture slides, additional resources for class assignments and discussion topics will be posted on Canvas by start of class. Students wishing to follow the lecture with the slides can download them from Canvas.

ORIGINAL WORK

Unless otherwise specified in an assignment, all submitted work must be your own, original work. Any excerpts from the work of others must be clearly identified as a quotation, and a proper citation provided. Any violation of the University’s Code of Academic Integrity will result in severe penalties, which might range from failing an assignment, to failing a course,
to being expelled from the program, at the discretion of the instructor and the Associate Dean for Academic Programs.

ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES

If you think you need an accommodation for a disability, please let me know at your earliest convenience. Some aspects of this course, the assignments, the in-class activities, and the way we teach may be modified to facilitate your participation and progress. As soon as you make me aware of your needs, we can work with the Disability Support Service (DSS) to help us determine appropriate accommodations. DSS (Email: dissup@umd.edu; Telephone: 301.314.7682; and Website: http://www.counseling.umd.edu/DSS/) recommends the types of accommodations that can be arranged. I will treat any information you provide as private and confidential.

CLASSROOM ETIQUETTE

Students are encouraged to bring notebook computers to class and to use them actively as learning tools. Students should:

- use laptops for taking notes, conducting research required for activities, and other specific classroom tasks as assigned by the instructor. During class, students should not check e-mail, chat, IM, play games, or perform other off-task activities.
- engage in classroom activities as actively as they would in any other class. The computer should not become a barrier to one-on-one interaction, but instead should help facilitate the exchange of ideas and engagement in classroom contact.
- demonstrate sensitivity to others. Students should not display screen images, including wallpapers and screen savers, which might be distracting or offensive to other members of the class.
COURSE SCHEDULE

Session 1: Overview of the class (January 28)

This session will include an overview of the goals, logistics, and requirements for the course. We will also discuss the role of research in information studies.

Session 2: Research Questions (February 4)

Formulating good research questions is the key component in research. This week we will discuss approaches to research questions and how those lead to methodological decisions.

Background


Short Articles on Formulating Research Questions


Research for Thinking about Research Questions


Session 3: Theory and Literature Review (February 11)

Research projects are expected to provide deeper understanding of a given problem. They draw ideas from, as much as contribute to, existing theory and literature. We will explore the relationship of theory and literature in the development and implementation of research projects. We will also tackle the importance of the review process in research publishing.

Background


Research to Focus on Theory and Literature Review


Session 4: Research Design and Overview of Methods (February 18)

Selecting an appropriate method to answer your research question can be difficult. This session will provide an overview of research methods, some of which we will discuss in greater depth throughout the term.

Background


Research to Focus on Research Design


**Session 5:  Core Concepts of Social Research (February 25)**

Translating complicated social issues and information problems into a research topic is very challenging. This week, we shall explore the fundamental features social science research: measurement and operationalization. We shall discuss and define the concepts of variable, validity, reliability, sampling, and units of analysis. We will also talk about why these concepts can guide you in selecting the most appropriate method for your research question.

**Background**


**Session 6:  Data Gathering: Surveys (March 4)**

Surveys are a basic form of research in information studies. They are as much an art as a science. This week we will discuss issues such as identifying a survey sample, survey development procedures, implementation issues, and appropriate uses of surveys.

**Background**

Bernard, Chapter 7: “Structured Interviewing,” p. 227-283

Bernard, Chapter 8: “Scales and Scaling,” p. 285-316

**Research Employing Surveys**


**Session 7: Data Gathering: Interviews and Focus Groups (March 11)**

Information professionals collect qualitative data to understand phenomena in their respective fields, institutions, or organizations. Interviews, observations, focus groups help information professional to attain an in-depth understanding of information behaviors, service use, and program areas.

**Background**


**Research Employing Interviews**


**Spring Break (March 17-24)**

**Session 8: Data Gathering: Observation (March 25)**

Bernard, Chapter 9: “Participant Observation,” p. 317-367

Bernard, Chapter 10: “Direct and Indirect Observation,” p. 375-413

**Research Employing Observation**


**Session 9: Data Gathering: Unobtrusive Measures (April 1)**

This week we will explore data gathering techniques that study behavior without affecting it. This week we shall explore unobtrusive research methods, including analysis of existing statistics, content analysis, historical and comparative research.

**Background**


**Research Using Unobtrusive Measures:**


**Session 10: Experimental Design (April 8)**

Controlled experiments enable us to see whether certain interventions have an impact in improving and developing systems, designs or services. This week we will understand and design experiments to evaluate, improve, and assess the effectiveness of programs.
Background


Research Using Experimental Design:


Session 11: Quantitative Data Analysis: Statistics I (April 15)

Basic numerical literacy is important for constructing surveys, extracting evidence, and evaluating the work of others. We will spend two weeks studying descriptive and inferential statistics to learn how to use and assess quantitative data.

Background


Research Using Descriptive Statistics:


Session 12:  **Quantitative Data: Statistics II (April 22)**

**Background**


**Research Employing Descriptive and Inferential Statistics**


Session 13: **Qualitative Data Analysis (April 29)**

We will discuss qualitative data and analysis techniques, such as coding techniques, narrative notes, discourse analysis, and content analysis.

**Background**

Connaway and Powell, Chapter 7: Lynn Westbrook, “Qualitative Research Methods,” p. 222-244


**Research Analyzing Qualitative Data**


Session 14: Research Ethics (May 6)

Research ethics are an important part of the research process. This week we will discuss informed consent, dealing with protected populations, and other ethical considerations in the research process.
