INF 397C Introduction to Research in Information Studies  
Unique No. 27670  
Spring, 2009  

Course Description  
Nature of social science research and its role in library and information science. Critical evaluation of research in the literature. Performance and reporting of empirical research. Qualitative and quantitative data collection and analysis techniques, including descriptive and inferential statistics. Graduate standing required.  

Major Course Objectives  
To introduction:  
• Basic concepts for INF research based on social science research  
• The relationship between social science research in INF and other discipline.  
• The concept of theory and its place in INF research  
• Basic techniques of research design and planning  
• Basic procedures for data collection and analysis  
• Basic elements of research ethics and legalities  

Specific objectives  
See instructional modules  

Syllabus and Dates  
Jan. 20 (Module 1)  
Module 1. Introduction of course and assignments  
Consider: What is research—why is it so important?  
For Jan 27, prepare Module 2, Parts A and B.  

Jan 27 (Module 2)  
Module 2. (Parts A & B). Introduction to information sources and the literature of research  
Powell and Connaway, p. 1-2  

Feb 3-10 (Module 3)  
Module 3. Research in the modern world: A comparative look at research traditions and their relationships to INF  
Feb 3 (social/cultural anthology)  
Feb. 10 (literary and/or biblical criticism)  

Feb. 17-24 (Module 4)  
Module 4. Research in INF fields  
Feb. 17 Historical research  
Feb 24 Qualitative research  
Powell and Connaway, pp. 1-15  
Book Review due Feb. 17  
Feb. 24, Portfolio, pt. 1 due (includes modules 1-3, plus historical part of module 4 as appropriate to assignments)
March 3 (Module 5)

Module 5. Theory and its role in INF research
Powell and Connaway, 30-33
Work group 1 presentation. Biographies of selected theorists

March 10 (Module 6)

Module 6. Major research techniques and applications
Powell and Connaway, Chs. 3, 6, 7, 8

March 17 (Spring break)

March 24 (Module 7)

Module 7. Recent INF Research
Powell and Connaway, pp. 1-15
Work group 2. Presentation Examples of recent research in INF fields

March 31 (TLA, no class)

April 7 (Module 8)

Module 8. Primary tools of research
Powell and Connaway Chs. 4, 5, 6, review chs. 7, 8
Portfolio, pt. 2 due April 7, (modules 4-7)
Work group 3. Overview of selected techniques (e.g., content analysis)

April 14-21 (Module 9)

Module 9. Statistics as a research tool
Powerll and Connaway Ch.9
Guest lecturer
April 14 (James)
April 21 (Dillon)
Statistical exercise due April 21

April 28 (Module 10)

Module 10 Designing and preparing the research study
Writing research proposal for grants (behind the scenes)
Powell and Connaway Ch. 11
Guest lecturer
Research proposal due Apr. 28

May 5 (Module 11)

Module 11. The Ethics and Legalities of Research
Powell and Connaway, 68-74
Guest lecturer
Portfolio, pt. 3, (modules 7-11, include copy of statistical exercise)
TEXTS


ASSIGNMENTS AND DUE DATES

<table>
<thead>
<tr>
<th>Assignments</th>
<th>Value</th>
<th>Due Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Book review of 2 pages</td>
<td>15%</td>
<td>Feb. 17</td>
</tr>
<tr>
<td>1 Short proposal design for a research project Four pages</td>
<td>25%</td>
<td>April 28</td>
</tr>
<tr>
<td>Reading and exercise portfolio</td>
<td>20%</td>
<td>See below</td>
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<tr>
<td>Part 1 Feb. 24</td>
<td></td>
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<td>Part 2 April 7</td>
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<tr>
<td>Part 3 May 5</td>
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</tr>
<tr>
<td>1 Work group presentation 20 minutes</td>
<td>20%</td>
<td>TBA</td>
</tr>
<tr>
<td>1 Statistical exercise</td>
<td>15%</td>
<td>April 21</td>
</tr>
<tr>
<td>Participation in class discussions and small group projects</td>
<td>05%</td>
<td>Ongoing</td>
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Grades and Values

Level 1
Superior work
100-96 A
95-93 A-
92-89 B+

Level 2
Satisfactory
88-84 B
83-80 B-

Level 3
Unsatisfactory
79-70 C
69-60 D

Level 4
Failure
<60 F
Portfolio and related group discussion Checklist

Details on these assignments are contained in modules

_____ Module 1. No requirements. Prepare for module 2 exercises

_____ Module 2. Portfolio: Four report summaries on information resources. Prepare for group discussion.

_____ Module 3. Portfolio: Report on two research journals. Prepare for group discussion


_____ Module 5. Portfolio: Report on a biographical sketch or theory in a field of interest to you. Prepare for group discussion

_____ Module 6. Portfolio: Report on a research method commonly used in research. Prepare for group discussion

_____ Module 7. Portfolio: Report on two class group presentations. Prepare for work group

_____ Module 8. Portfolio: Report on the research methodologies used in a selected article. Prepare for group discussion

_____ Module 9. Portfolio: Complete the statistical exercise. Prepare for group discussion and sharing

_____ Module 10. Portfolio: Report on 2 research reporting journals. Prepare for group discussion

ASSIGNMENT GUIDELINES

BOOK REVIEW GUIDELINES

Select a book dealing in some way with research and write a two-page review. This review should be aimed at a professional audience such as librarians or other types of information workers. Select a book that is a discussion rather than a reference book. It may be a book on procedures and techniques, a book on the history of research in a discipline, or a book on the issues and problems regarding research. You may select from the books listed in the syllabus if you like. However, do not use the required or suggested two textbooks for this course.

For examples of reviews of published reviews in the INF field, check the professional press such as *Library Journal, Booklist, Library Quarterly, American Archivists* and others. Make sure that your review includes the following:

► Bibliographic citations (use a standard form or style)
► An introduction describing the content of the book and its purpose
► The intended audience
► Special overages or attributes
► A critical assessment based on its stated purpose, coverage, accuracy, and usefulness
► Make a recommendation for its purchase or information value
► Sign your name (this is a requirement for a published review)

WORK GROUP PANEL PRESENTATIONS

During the semester, you and your work group will present a 20-minute panel discussion for the class. A list of suggested topics will be provided. Once you have been assigned a topic or have selected one depending on how the class develops, you should meet and select a group coordinator. This coordinator will be in charge of making sure that everyone knows their responsibilities. During the presentation, the coordinator also will make sure that time limits are met and manage questions from the class.

For the content of the discussion, make sure that you:

► Provide an introduction to the topic
► Outline some of the major issues involved with the topic
► Give some of the controversies that might be associated with the topic
► Suggest its relationship to INF
► Add any other insights that you might have
Prepare a handout for the class in which the major points are the discussion are summarized.

You may prepare a PowerPoint for your presentation if you wish.

Each member may present a separate part of the discussion, but there should be a unifying theme that holds these together. A summary statement should be made at the end of the presentation that brings all your point together. Leave time for questions from the class.

The following are some work group topic that can be selected for presentation/

Behavior and learning theorists

David Ausubel
Albert Bandura
John Dewey
Robert Gangé
Howard Gardner
Edward Guthrie
Kurt Koffka
Kurt Lewin
Jean Piaget
Shannon and Weaver (Claude Shannon and Warren Weaver)
B. F. Skinner
Lev Vygotsky
Bernard Weiner
Max Wertheimer

Library and Information Science Theorists

Maria Bates
Piece Butler
Brenda Dervin
Margaret Egan
Jesse Shera
Douglas Wapler

Theories

A theory is a systematic explanation of the observations that relate to a particular aspect of life.

Adult Learning Theory [how adults learn]
Behaviorism and Social Learning Theories (Bandura)
Bibliographic Control Theory
Bibliometric Theory
Cognitive Theory and Cognitive-Development Theory
Community Psychology Theory
Conflict Theory
Cooperative Learning Theory
Critical Theory (social or literary)
Discourse Analysis (textual and conversational)
Ecological Systems Theory
Ethnographic theory
Feminist Theory
Gender Theory (includes Queer Theory)
Gestalt Theories
Information Processing Theories
   [A type of cognitive theory which is a mechanistic, computer-like model of stimulus input and behavioral output combining with active processing structures].
Instructional Design Theories (Bloom; Gagné)
Marxism
Modernism
Moral Reasoning Theory (Kohlberg)
Piaget’s Cognitive-Development Theory
Postmodernism
Role Theory
Social Constructionism
Social Exchange Theory
Social Functionalism
Social Judgment Theory
Symbolic Interactionism
Social Marketing Theory
Socio-Literary Theories (how literature interacts with society and culture)


Research methods and specific techniques
Case studies
Focus groups
Content analysis
Field studies
Experimental and quasi-experimental studies designs
Historical analysis and design
 Literary research and design
Phenomenological design
Survey research (Questionnaires and interviews) design
Textual analysis (various kinds) (e.g., authorship, origins)
PORTFOLIO AND MODULE GROUP WORK ASSIGNMENTS

You will keep a portfolio of most of the work that you do in this class. The portfolio assignments are ongoing and are generally assigned with each module. Much of the portfolio work comes from the small group discussion activities assigned for that module, and readings. Group work discussions are planned throughout the course and are stated within each module. You are expected to be prepared for each module group discussion according to the assignments for the module. Some of these assignments involve prior reading so plan your time according. Check each module for specific assignments. Include in the portfolio any other assignments that you have that indicate the progress of your work (e.g., book review, summary of your panel discussion, etc. according to the date that you presented it or had it returned to you). As you finish each module exercise, date it, and place it in the module in chronologic order. The module will be due at assigned dates during the semester. See Assignment Dates for the specific times that each section of the portfolio is due.

BRIEF RESEARCH PROPOSAL

Prepare a 4 page proposal in which you outline a research project. Include all the major elements of a proposal. Include introduction to the problem, with a brief literature review (3-4 well chosen articles); the specific problem statement, a hypothesis if necessary; and a design strategy for your research. In the design methodology make sure that you use both qualitative and quantitative procedures (e.g., mixed method). Include a bibliography. In your proposal follow directions given in a well known style manual (e.g., APA Manual of Style).
INSTRUCTIONAL MODULES

Module 1. Introduction of Course
What is Research?

Objective

To present and outline requirements for course

To introduce the concept of research and to consider its importance to society and to professional life

To introduce students and form into work groups for model 2 assignment
Module 2. Sources of information about research in INF fields

Objectives

To introduce and consider how information is published and/or and reported in the various disciplines through literature reviews, and abstracting and indexing tools

To introduce methods of finding research through major review and indexing and abstracting services

To introduce standard terminologies in describing research reports

Part A INF Field Resources

The following are some general research review sources useful in the INF fields located in PCL:
Annual Review of Information Science and Technology (Z 699 A1)
Advances in Librarianship (Z 674 A4);
Advances in Computers (QA 76 A3);
Advances in Information Systems (QA 76 D3155);
Encyclopedia of Library and Information Science, 1st ed. (Z 1006 E57). Includes a very large number of supplements.

The following sources are available from UT Library Online (http://www.lib.utexas.edu/indexes/index.html):
Dissertation Abstracts International
ERIC (Includes Library and Information Science
Library and Information Science Abstracts;
Library Literature and Information Science;
Encyclopedia of Library and Information Science, (2d.ed.);
The ACM Digital Library (also www.acm.org)
[Source: G. Harmon]

Part B. Other Related Fields

The following are indexing and abstracting tools in other areas that offer access finding and exploring research in related fields of interest to INF. All of these are available online at http://www.lib.utexas.edu/indexes/index.html. Descriptions are provided with the “About” link at each site.

America: History & Life
BIOSIS Previews (includes Biological Abstracts)
Communication & Mass Media Complete
Contemporary Literary Criticism
Chemical Abstracts Student Edition
Film and Television Literature
Historical Abstracts
LexisNexis Academic (includes business)
Medline
MedlinePlus
MLA International Bibliography
PAIS International (political social sciences)
Assignments for model 2 Parts A and B)

For portfolio: Examine two tools A and two tools from B paying attention to coverage and their research reporting. See list below for guidance. Describe findings for your portfolio. For class participation be prepared to share your observations with your class by developing some talking points to share with your group.

- **For abstracts and indexes**
  - Types of research reported--subject coverage.
  - Information provides (bibliographic access points, abstracts and the kinds of abstract provided
  - Subject approaches and online access
  - Authority behind the tool (publishers, association, writers, etc.)
  - How easy is it to use?
  - How affordable is it?

- **For reporting journals or tools**
  - In addition to some of the above points, consider:
    - How is the research presented (journals, discussions, condensed reports)
    - What is the overall tone of the source toward research (important in terms of scholarship and professional knowledge, or just a secondary importance?)
Module 3. Research in the modern world: A comparative look at research traditions

Objectives:

To consider how research is viewed and practiced in various disciplines and professions and appreciate how this is holistically related to work in INF

To consider how various disciplines view research and its application and how they report research through their major reporting journals and publications.

Some selected fields of inquiry and references:

Anthropology and archeology (cultures and antiquity)


Biblical criticism (cultural meanings within historical settings)


Biology (evolutionary biology)


Communications and journalism (effects of media on behavior)


Criminology


Education (learning and culture)

Ethnic and group studies (e.g., Hispanic, Black, Gay and lesbian studies, Gender studies)


Historical research (standards interpretations and reconstructionism)


Literary criticism


Medicine (advances in cures)

Landmark research of the Medical Research Council – available on Wikipedia.


Music (history, forms, performances, artists)


Nursing (culture and health)

Popular culture (music, folk applications, reading, entertainment)


Psychology


Science (General)


Lee, Jeffrey A. *The Scientific Endeavor -- a Primer on Scientific Principles and Practice*. San Francisco: Benjamin Cummings, 2000. Not Available at UT.


Sociology and social work (culture and urban life)


Work and recreation


Reporting Resources

Journal Resources (Selected). See also Module 1A. Hundreds of research journals exist. For others consults the periodical room PCL.
Indexes and Abstracts. See Module 1 (Part B)

Assignments for Module 3.

For portfolio. Select two journals from the above list and annotate these in terms of reporting research and the application of research findings. See guidelines below. Consider the journals standings in their fields. For group work: Present your selections and description to your work group.

For reporting journals
- How is research presented (journals, discussions, condensed reports)
- What is the overview tone of the source toward research (important in terms of scholarship and professional knowledge, or just a secondary importance?)
- What is the authority behind the tool?
- What is its standing in the field?
- Is it referred?
- What are the instructions for manuscript submissions?
- Is it indexed or abstracted in an accessible outside source?
- Does it seem to represent the values of an accepted discipline?
- Other characteristics that you notices.
Module 4. Research in INF Fields with Examples

Objectives:

To consider how research is used and applied in the INF field.
To consider examples of important and influential research in the field
To consider who does the major research in the INF Field
To conflicting ideas about research in the INF field

Examples of research areas

Management of personnel
Facilities and their design and functions
Collection development and management
Users and user needs and requirements
Designs and testing of information retrieval instruments
Learning and the effects of school libraries
Literature analysis
Historical studies
Institutional environments
Cultural and social patterns
Bibliography and bibliographic control
Social and cultural studies
Technology and its application

Importance of abstracts and abstracting in keeping up with research

Examples of journals in the various disciplines that report research and research applications in the INF field, including those in which the INF faculty have published. Current journals are located in PCL 2.400. Bound journal are in the stacks.

The American Archivist. PCL: CD 3020 A45
Bulletin of the American Society for Information Science and Technology PCL: Z 699 A1 A624A. Also Available Online.
Cataloging and Classification Quarterly PCL: Z 693 A15 C35. Also Available Online.
College and Research Libraries Z 671 Z6. Also Available Online.
International Journal of Information and Management Science T 58.6 I579.

Journal of Education for Library and Information Science PCL: Z 671 J64. Also Available Online.
Journal of the Medical Library Association PCL: Z 675 M4 M423. Also Available Online.
Journal of Usability Studies
Knowledge and Information Systems Online Only.
Libraries and the Cultural Record. Continues Libraries and Culture.
Law Library: Z 671 J6. Also Available Online.
For portfolio: 1. identify two important research journals in INF, examine them and briefly describe them. Be prepared to present to your work group. 2. Consider the types of abstracts that are generally available in research. Go to Dissertations Abstracts International (online at PCL), find the coverage sections for INF (depending on your interests), and for the last ten years locate 3 dissertations that have been accepted during those time periods. Read the abstracts, (and sometime more information is provided, e.g., first chapter,) and briefly describe the studies’ subjects (e.g., what they attempted to research). Consider whether the abstract was informative enough for you to really understand what the study was all about. How significant do you feel the study might be for further research and development in the area under investigation? Prepare group some talking points to be shared with your group.
Module 5. Theory and its role in research

Objectives

To consider the various meanings of theory
To review how theory is applied in both science, social sciences, and humanities
To review some basic theories and their research bases
To consider ways that they have been applies to INF research

Examples of theoretical constructs

Scientific theories (examples):
  - Theory of relativity;
  - Biological evolutionary theories
Literary theories
  - Modernism and postmodernism
Social theories (examples)
  - Social constructionism
  - Discourage theory
  - Behaviorism
  - Social behavior and social environmental theories
  - Cogitative theory
  - Information theory

Important theorists and schools of theory

The Graduate School of Library Science, Univ. of Chicago faculty
The Graduate School of Library Science, Univ. of California, Berkley
Case Western Reserve University

Resources:


Biographical and resources on theories

Biography Database. Available Online.
Biography Reference Bank. Available Online.
Blackwell Encyclopedia of Sociology. Available Online
Dictionary of American Biography. (plus supplements and indexes) PCL: E 176 D567
Assignments:

For portfolio: Select and write a brief (500 words) of either a biographical sketch of a well-know theorists in an area of your interest or a theoretical model or idea. Be prepared to present to your work group.
Module 6. Major research techniques and applications

Objectives

To consider the major tools and applications used in research

To understand how these are applied to the broad area of INF studies

A. Humanistic approaches to textual and documental studies
B. Historical (critical analysis and documentation)
C. Literature
D. Scientific methods: Background and major approaches:
   Qualitative and Quantitative
   Clinical and experimental (laboratory and experimental)
E. Replication in scientific research

Resources

Assignments

For portfolio: Read a discussion on a major approach commonly used in humanistic (e.g., literature, history) research and one in scientific research. Consider if and how these have application in INF studies and research. Be able to present to your work group.
Module 7. Recent Research in INF

Objectives

To consider some recent examples of INF research
To consider the recently published TLA research initiatives

For portfolio. After hearing the 2 work groups presentations, prepare a list of at least 5 questions that arose from these presentations. Discuss selectively some of these questions with your group, from the discussion prepare a representative list of questions that came from that discussion with comments and include those in your portfolio.
Module 8. Primary tools of research In INF

Objectives

To review and consider the major approaches to gathering research data including:

- Documents and content analysis
- Field work as evidence
- Content analysis
- Human subjects as data and the researcher’s responsibility to them (ethical issues)
- Intervention and clinical applications
- Bibliographic research (documents and retrospective literature)

To consider research applications and uses in INF research

Assignments:

For portfolio: Select an article that explains at least two research techniques useful in INF research. Prepare a brief (500 words) review of the techniques and explain how they would be useful in INF research. The following resources should help you with this. Be able to discuss this with your group.

Resources:


Note: There are many guides to research in specific areas of study that are useful. Check PCL for these. For Example, *Encyclopedia of Nursing Research* PCL Reference RT 81.5 E53 2006 is an example. Use appropriate keywords such as Encyclopedia + a the name of a discipline or area of study, e.g., psychology; or handbook + a discipline to find listings. Methodology is also a useful keyword to use.
Module 9. Statistics as a research tool

Objectives:

To consider role of statistical methods in research
To introduce basic statistical concepts and terms and their applications
To consider the role of the modern computer in statistical analysis
To review some modern development in statistical applications
To consider how to use a statistical consultant in research work
To review the computer and new methods of statistical analysis (new developments
The statistic consultant as a resource

Assignments

For portfolio: Complete the statistical exercises that follows.

Resources: See citations in exercise
Module 10. Design and preparing the research study

Objectives:

To review how research is reported and disseminated including:
- Humanities and history, science, journalism and mass media

To consider the form of the scientific report:
- Role of theory
- Literature review
- Methodology
- Findings
- Discussion
- Conclusions and recommendations
- Resources and documentation

To determine how to disseminate findings of research projects – to whom and how

Assignments:

For portfolio: Read a study from a humanistic area of study and one from a scientific area of study and compare and contrast them in term of how they present research findings. Prepare a 500 word review each for both of your studies. Consider whether the study could be restructured to follow the other method of presentation (that is, could a study presented in the tradition of the humanities be reformed to be presented as a scientific study, and vice versa. Suggest how the study could be developed for presentation to a lay audience. For the group: Be prepared to present to your group

Resources:

See module 1 for resource suggestions.
Module 11. The Ethics and Legalities of Research

Objectives:

To consider the expectations and responsibilities of the researcher in a democratic society

To consider some of the major ethical and legal problems facing

To review the role of government in research and its foci

To consider the role of government and professional association and society to protect the research integrity and the public

Assignments:

For portfolio. Select and read 1 article addressing some of the legal and ethical problems faced by society and researcher today. Write a brief (500 word) review of your article. Be prepared to present to your work group.