LIS602 (Section 401): Information Storage and Retrieval
Fall 2007

School of Library Information Science
University of Kentucky

Class Time: Tuesdays 6:00pm-8:30pm
Location: LCLI 357
Instructor: Sujin Kim
Office: 518K King Library South
Office Hour: Tuesdays 3:30-5:30p.m
or by appointment
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Phone: (859) 257-8657

NOTE: This syllabus is subject to change (Minor change). Last Modified: 09/05/2007

1. Course Description:

"A study of the basic principles and practices of information documentation, organization, storage, retrieval and dissemination. The structure of document surrogates, indexing languages, thesauri, natural language systems, catalogs and files, information storage media, retrieval systems, networks and information delivery systems are examined." (UK-SLIS course description)

1-1.

This course supports the four themes of the conceptual framework for the UK professional education unit: ***research, reflection, learning,*** and ***leading***. The ultimate goal is to produce leaders who work together to improve service and learning among diverse populations in Kentucky and beyond.

2. Course Objectives are:

- to understand the dimension of information documentation,
- to understand the organization of information,
- to understand the components of information storage and retrieval system,
- to explore optimization factors for information systems, and
- to evaluate current issues in information storage and retrieval.

Upon satisfactory completion of this course, students will:

- be able to understand core concepts of information organization including information surrogates, subject analysis, indexing and abstracting, vocabulary control, metadata, and categorization &

- understand and be able to explain core concepts and terms of information storage, retrieval, and dissemination including document representation, query forms and structures, matching process, and user profiles and inputs, outputs, and retrieval effectiveness of information system.

3. Required Readings:

Books:
*Note: individual chapters in accordance with each week's topic can be found in the course calendar below.

- Taylor, Arlene (2003), 2nd Edition. *The Organization of Information*. Englewood, Colorado: Libraries Unlimited.
- Chu, Heting (2003). *Information Representation and Retrieval in the Digital Age*. Medford, New Jersey: American Society for Information Science and Technology (ASIST).
- Chan, Lois (2007), 3rd Edition. *Cataloging and Classification*. Lanham, MD: The Scarecrow Press, Inc.
- Other book chapters will also be available for your reading in the Course packet in the CAIT Lab.

Articles:
* Journal Articles are listed in the course calendar below and subject to change.
* Articles can be found in the course packet in the CAIT lab.

4. Assessments and Grading:

- 10 Reading Summaries: 10% (Reading summary note)
- 10 In-Class Exercises: 20%
- 2 exams: 30%
- Term Project (Thesaurus Construction): 30%
- Learning Experience Essay: 5%
- Class attendance/participation: 5%

Grade: A (above 90%)
B (between 80% and 89.9%)
C (between 70% and 79.9%)
Fail (69.9% or less)

5. Submitting and Naming:

- All assignments should be printed out in paper and turned in class before due dates! (unless it will be told to submit the electronic format.)
- All written assignments must be prepared using word processing (MS Word preferred). Recommended format is:
  - ✓ Font size: 12
  - ✓ Font style: Times New Roman, and
  - ✓ Line spacing: Double.

6. Course Policies

Academic Integrity
You are expected to be fully aware of your responsibility to maintain a high quality of integrity in all of your work. All work must be your own, unless collaboration is specifically and explicitly permitted as in the course group project. Any unauthorized collaboration or copying will at minimum result in no credit for the affected assignment and may be subject to further action under the University Guidelines for Academic Integrity. You are expected to have read and understood these Guidelines. As defined by the University Senate Rules (6.3.2), a student's use of previous class work to satisfy the academic requirements of this class is a form of academic cheating. For details regarding cheating and plagiarism, please refer to Section 6.4.0-1 of the Student Rights and Responsibilities Handbook (http://www.uky.edu/StudentAffairs/Code/) and Section 6.3 of the University Senate Rules (http://www.uky.edu/USC/Section VI.pdf) for details.

Attendance
Class attendance is required if you want to succeed in this course. To take great benefits from in-class type of course like this one, please make sure to attend the class regularly. For some unavoidable reasons that you cannot come to class, please make sure that you understand a copy of the slides and required readings assigned each week.

Excused Absences
Students are expected to attend each class meeting unless he or she has been excused by the instructor. Failure to attend class will result in a lower grade. Absences due to illness or emergencies must be reported within a week. You may call the instructor's office (859) 257-8657 or email me at sujinkim@uky.edu.

Unexcused Absences
A student who has unexcused absences in excess of one-fifth of the class contact hours will receive a failing grade. No make up will be given for unexcused absences.

Late Submissions
Homework or projects submitted after due date will not be accepted, unless you have a prior permission from your instructor.

Incompletes
An incomplete grade due to illness or other emergencies may be arranged. A request for an incomplete due to illness must be accompanies by a letter from your doctor, the Student Health Service, or a hospital. Lack of time to complete assigned work, or other reasons not relate to unavoidable excused absences, will not be accepted as a valid reason for petitioning an incomplete.

Special Considerations
If you have a disability that requires special testing accommodations or other classroom modifications, please, notify both the instructor and Disability Resources and Services by the second week of the term. You may be asked to provide documentation of your disability to determine the appropriateness of accommodations. To notify Disability Resources and Services, contact and visit the UK Disability Student Resource Center at http://www.uky.edu/StudentAffairs/DisabilityResourceCenter/ .

7. Course Calendar: *(can be subject to change—>minor change!)*

Week 1: Tuesday, August 28, 2007
Topic: Overview of Course • Course syllabus • Surveys (Student, Technology and Class roaster)
In-Class Exercise #1: • Understanding Primary Information Systems

Week 2: Tuesday, September 4, 2007 (*Reading Summary #1 & In-Class exercise #1 Due*)
Topic: Overview of IR concepts • Basic Components of IR
Readings: • Taylor, A.G. (2003). Organization of Recorded Information (Chapter 1). In *The Organization of Information* (pp. 1-28). Englewood, Colorado: Libraries Unlimited. • Chu, H. (2003). Information Representation and Retrieval: An Overview (Chapter 1). In *Information Representation and Retrieval in the Digital Age* (pp. 1-24). Medford, New Jersey: American Society for Information Science and Technology (ASIST).
In-Class Exercise #2: • Applying InfoKat to basic components of IR

Week 3: Tuesday, September 11, 2007 (*Reading Summary #2 & In-Class exercise #2 Due*)
Topic: Information Representation I • Bibliographic information representation (ISBD/AACR and MARC)
Readings: • Taylor, A.G. (2003). Metadata: Description (Chapter 7). In The *Organization of*

Information (pp. 159-199). Englewood, Colorado: Libraries Unlimited.
- Library of Congress (2003). Understanding MARC Bibliographic: Machine-Readable Cataloging. Retrieved August 21, 2006, from Library of Congress. Web site: http://www.loc.gov/marc/umb/um01to06.html http://www.loc.gov/marc/umb/um07to10.html http://www.loc.gov/marc/umb/um11to12.html

In-Class Exercise #3:
- Understanding MARC records (for books, articles, etc.)

Week 4: Tuesday, September 18, 2007 (*Reading Summary #3 & In-Class exercise #3 Due*)

Topic: Information Representation II
- Other types of information representation

Readings:
- Taylor, A.G. (2003). Metadata (Chapter 6). In *The Organization of Information* (pp. 139-158). Englewood, Colorado: Libraries Unlimited.
- Lagoze, Carl. (January 2001). Keeping Dublin Core Simple: Cross-Domain Discovery of Resource Description? *D-Lib Magazine* 7(1). Available at: http://www.dlib.org/dlib/january01/lagoze/01lagoze.html

In-Class Exercise #4:
- Applying Dublin Core to UK homepage and yourself

Week 5: Tuesday, September 25, 2007 (*Reading Summary #4 & In-Class exercise #4 Due*)

Topic: Information Analysis I
- Subject Analysis in general
- Indexing and abstracting

Readings:
- Taylor, A.G. (2003). Subject Analysis (Chapter 9). In *The Organization of Information* (pp. 241-259). Englewood, Colorado: Libraries Unlimited.
- Lancaster, F. W. (2003). Indexing Principles (Chapter 2). In *Indexing and Abstracting in Theory and Practice*. 3rd ed. Champaign: University of Illinois, Graduate School of Library and Information Science. [The copy of the chapter is available in the course reading packet in the CAIT or Library Location: Young Books (4th & 5th floors), Call Number: Z695.9 .L35 2003]

In-Class Exercise #5:
- Interpreting Index/Abstract records (InfoKat, Medline)

Week 6: Tuesday, October 2, 2007 (*Reading Summary #5 & In-Class exercise #5 Due*)

Topic: Information Analysis II
- Vocabulary control

Readings:
- Taylor, A.G. (2003). Systems for Vocabulary Control (Chapter 10). In The

Organization of Information (pp. 261-295). Englewood, Colorado: Libraries Unlimited. • Svenonius, E. (1990). Design of Controlled Vocabularies. In Kent, A. (Ed.) Encyclopedia of Library and Information Science. 45 (Supp. 10) (pp. 82-109). New York: Marcel Dekker [The copy of the chapter is available in the course reading packet in the CAIT]
In-Class Exercise #6: • Searching and interpreting LCSH

Week 7: Tuesday, October 9, 2007 (*Reading Summary #6 & In-Class exercise #6 Due)*
Topic: Information Analysis III • Thesaurus Construction
Readings: • Western Ontario University (1997). Thesaurus Construction. Available at: http://instruct.uwo.ca/gplis/677/thesaur/main00.htm [Access on August 28, 2007]. • Thomas, A.R.(2004). Teach Yourself Thesaurus: Exercises, Readings, Resources. *Cataloging & classification quarterly*, 37(3-4): 23-34. • NISO (2003). Guidelines for the Construction, Format, and Management of Monolingual Thesauri (z39.19). Retrieved August 21, 2006. from National Institute of Standard Organization (NISO) Web site: Available at: http://www.niso.org/standards/resources/z39-19.pdf [Access on August 28, 2007].or CAIT lab Thesauri Example folder near course packet
- **NO IN-CLASS EXERCISE!**

Week 8: Tuesday, October 16, 2007 (Mid-Term)
• Mid-Term
• NO READINGS FOR THIS WEEK!
• NO IN-CLASS EXERCISE FOR THIS WEEK!

Week 9: Tuesday, October 23, 2007 (*Reading Summary #7 Due & Thesaurus Topic and a Short Description Due*)
Topic: Information Analysis IV • Bibliographic classification • LCC vs. DDC
Readings: • Taylor, A.G. (2003). Systems for Categorization (Chapter 11). In *The Organization of Information* (pp. 297-329). Englewood, Colorado: Libraries Unlimited. • Chan, L.M. (2007). Library of Congress Classification. In: *Cataloging and Classification: An introduction*. 3rd ed. (pp: 309-333 & 375-387). New York: McGraw-Hill. • Olson, Hope A., & John J. Boll. (2001). *Subject Analysis in Online Catalogs*. 2nd ed. Englewood, Colo.: Libraries Unlimited, In Chapter. 7: "Bibliographic Classification." [[The copy of the chapter is available in the course reading packet in the CAIT or

Library Location: Young Books (4th & 5th floors) Call Number: Z699.35.S92 A46 2001]
In-Class Exercise #7: • Understanding LCC and DDC

Week 10: Tuesday, October 30, 2007 (*Reading Summary #8 & In-Class exercise #7 Due*)
Topic: Information Arrangement and Display • Arrangement of Tangible information • Arrangement and display of intangible information
Reading: • Taylor, A.G. (2003). Arrangement and Display (Chapter 12). In The Organization of Information (pp. 261-295). Englewood, Colorado: Libraries Unlimited.
In-Class Exercise #8: Analyzing User Interfaces of Bibliographic Information System

Week 11: Tuesday, November 6, 2007 (*Reading Summary #9 & In-Class exercise #8 Due)*
Topic: Information Systems and Databases • System Design • Basic concepts of DBMS • Bibliographic Databases (OPAC)
Readings: • Taylor, A.G. (2003). Systems for Categorization (Chapter 5). In *The Organization of Information* (pp. 297-329). Englewood, Colorado: Libraries Unlimited. • Baeza-Yates, R., & Ribeiro-Neto, B. (1999). Libraries and Bibliographic System (Chapter 14). In *Modern Information Retrieval.* Reading (pp.397-414), MA: Addison-Wesley. [The copy of the chapter is available in the course reading packet in the CAIT]
In-Class Exercise #9: • Understanding Data Type and Format

Week 12: Tuesday, November 13, 2007 (*Reading Summary #10 & In-Class exercise #9 Due*)
Topic: IR Models and Queries • IR Models • IR Queries
Readings: • Chu, H. (2003). Information Retrieval Models (Chapter 7). In Information Representation and Retrieval in the Digital Age (pp. 97-115). Medford, New Jersey: American Society for Information Science and Technology (ASIST). • Baeza-Yates, R., & Ribeiro-Neto, B. (1999). Modeling (Chapter.2) (pp.19-34). *Modern*

Information Retrieval. Reading, MA: Addison-Wesley. [The copy of the chapter is available in the course reading packet in the CAIT]
• NO IN-CLASS EXERCISE FOR THIS WEEK!

Week 13: Tuesday, November 20, 2007
Topic: IR Evaluation and Users • Relevance (Precision and Recall) • TREC
Readings: • Chu, H. (2003). Evaluation of Information Representation and Retrieval (Chapter 11). In *Information Representation and Retrieval in the Digital Age* (pp. 185-228). Medford, New Jersey: American Society for Information Science and Technology (ASIST). • Sparck Jones, Karen. (2000). Further reflections on TREC. *Information Processing and Management* 36: 37-85. Available at: http://www.cs.odu.edu/~jbollen/spring03_IR/readings/jones_TREC6.pdf
In-Class Exercise #10: • Calculating relevance (precision and recall)

Week 14: Tuesday, November 27, 2007 (*Thesaurus in Print Due & In-Class exercise #10 Due*)
Group 1: Final Project Presentation
• NO READINGS FOR THIS WEEK!
• NO IN-CLASS EXERCISE FOR THIS WEEK!

Week 15: Tuesday, December 4, 2007 (*Learning Evaluation Essay Due*)
Group 2: Final Project Presentation
• NO READINGS FOR THIS WEEK!
• NO IN-CLASS EXERCISE FOR THIS WEEK!

Week 16: Tuesday, December 11, 2007 (Final Exam)
• Final exam
• NO READINGS FOR THIS WEEK!
• NO IN-CLASS EXERCISE FOR THIS WEEK!

8. Useful Links

Center for Applied Information Technology (CAIT) at School of Library and Information Science http://www.uky.edu/CommInfoStudies/SLIS/cait/cait.htm

University of Kentucky Libraries – William T. Young Library
http://www.uky.edu/Libraries/wty.html