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Fax: 414-229-6699

Meeting Times: This is an online course. There are no weekly meetings, although there may be selected chat sessions scheduled based on class member availability.

Office Hours: TBA

DESCRIPTION:

An overview of information retrieval including concepts, approaches, evaluation methods, and issues (3 credits)

GENERAL DESCRIPTION:

This course examines three major categories of issues related to information access and retrieval. First, it is concerned with the range of current information retrieval systems and techniques or processes involved in their construction and application, including database structures, indexing principles, vocabulary control, and interfaces. Second, the course establishes how to describe and analyze the dynamics of users’ information needs and their searching behaviors. Third, students will be equipped with critical and analytical skills related to selecting appropriate information retrieval systems, databases, resources for assistance, query formulation, and other information retrieval techniques. Special attention is also given to the evaluation of IR systems.

PREREQUISITES:

Junior standing and basic computer literacy as outlined in the SOIS policy is required.

OBJECTIVES: Upon completion of the course, students will be able to:

1. Describe and critically compare fundamental characteristics of information retrieval systems, their interfaces, and other components (term paper, test)
2. Understand and assess the relative importance of principles of information access and retrieval (discussion, test)
3. Analyze information user needs, preferences, and search behaviors (term paper, search exercises)
4. Understand and critically evaluate interactive search processes; (search exercises)
5. Analyze and evaluate different types of IR systems in terms of their interfaces, performance, and other components (cross-system evaluation, in class exercises)
TEXTBOOK and READINGS:


Additional readings are also assigned from other sources, available through the course Canvas site or directly on the Web.

WORKLOAD:

In addition to the scheduled meeting times for the course, students should expect to devote on average six to seven hours a week to class-related activities such as reading, research, and assignments over the course of the semester.

METHOD: Lecture/Discussion

Students with special needs should contact the instructor as early as possible for accommodations.

COURSE SCHEDULE AND READINGS:

The course will address the following topics:

- Introduction to Information Retrieval (IR)
- Representation of IR Content - Metadata & Subject Analysis
- Representation of IR Content - Indexing & Abstracting
- Searching & Retrieval
- Users & User-centered Models of IR
- User Interfaces
- Online Searching - OPACS, Online Databases
- Web-based IR
- Digital Libraries
- Evaluation of IR Systems - System-centered & User-centered
- Multimedia Retrieval & Visualization for Retrieval
- Natural Language Processing / Cross-language Retrieval
- Citation Analysis & Webometrics for IR

ASSIGNMENTS

Grades will be reduced for late papers (one full grade for each week or part thereof) unless there are extenuating circumstances discussed with the instructor before the due date. Written assignments are to be typed, preferably word-processed. Papers are to be double-spaced using a 12-point font such as Times New Roman with 1 inch margins. You may use other fonts, but realize that fonts such as Arial or Courier result in less content per page for the same point size, so please factor this into the length of your papers if you choose to use one of these fonts and adjust the page length of your assignments accordingly. The length requirements are determined by the number of words, and not necessarily the number of pages, which serves as a guide. You may not resubmit work that has already been used in
fulfillment of the requirement of this or any other course. Rules of academic conduct require that you
not use the work of others without clearly indicating it as such. Academic misconduct may result in a
lowered grade, no credit for a given assignment, or removal from the course. It is expected students will
consult and appropriately cite the research and professional literature where appropriate. Grades will
also be reduced for papers that include irrelevant content to “fill up space” to meet the length
specifications for a paper. An example of this practice is submitting a paper that presents a cursory
treatment of several topics when a detailed treatment of a single topic is expected.

Please rely on a commonly used style manual for your submissions (e.g. Turabian, Chicago,
APA, MLA), for referencing sources. These are available in the UWM Bookstore or may be
purchased through online book vendors. If you are uncertain about how to cite electronic
sources, consult one of the many electronic guides to citing electronic sources available on the
net. Minimal reference content includes: author (if known), date (if given), title, URL, and date
accessed. A good starting point for referencing electronic sources is available at:

1. Search Exercises

There will be two search exercises that address:
   OPACs & Online Databases
   Digital Libraries & Web searching

2. “In Class” Exercises

There will be five brief exercises exploring different IR technologies and applying evaluation
techniques. Each should not take more than 20-30 minutes to complete. You will receive credit
for having submitted the satisfactorily completed exercise. Each exercise will be due at the
beginning of the following week in which they were assigned.

3. Test

There will be an open book test. The test will consist of short answer and essay questions.

4. Cross System Comparison/Evaluation

This assignment will entail the comparison and evaluation of the features, usability and results of
four types of IR system environments (OPAC, Online database, Web search engine, digital
library).

5. Term Paper – Due in two parts

The paper will:
   • Provide an overview of the topic of interest, its scope, history and why it is significant
   • Outline the current state of the topic based on a critical review of relevant literature. This may
     include research findings and critiques of the challenges and solutions relevant to the topic.
   • Summarize the future directions for the topic and its impact.
The project will be due in two parts: a proposal and a final paper.

**CLASS PARTICIPATION**

It is expected that students will participate in the discussions on a regular basis. Not participating on a regular basis will result in a substantial penalty in your class participation grade and ultimately the final grade for the course regardless of how well you performed on the assignments for the class. Participation implies keeping up with class materials, posting contributions that are productive and insightful in addition to reading and responding to your classmates’ postings, along with participating in scheduled chats, where applicable. Regular participation also means that you are contributing to discussions on a consistent basis throughout the course and not just during selected weeks or only during the eleventh hour of each week’s discussion.

**EVALUATION**

<table>
<thead>
<tr>
<th>Component</th>
<th>Undergraduate Students</th>
<th>Graduate Students</th>
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</thead>
<tbody>
<tr>
<td>Search exercises</td>
<td>10% (1 exercise)</td>
<td>20% (2 exercises)</td>
</tr>
<tr>
<td>Cross system comparison and evaluation</td>
<td>20%</td>
<td>15%</td>
</tr>
<tr>
<td>“In class” brief exercises (5)</td>
<td>10%</td>
<td>5%</td>
</tr>
<tr>
<td>Test</td>
<td>15%</td>
<td>15%</td>
</tr>
<tr>
<td>Term paper – proposal</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>Term paper – final paper</td>
<td>20%</td>
<td>20%</td>
</tr>
<tr>
<td>Participation</td>
<td>20%</td>
<td>20%</td>
</tr>
<tr>
<td>Total</td>
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**GRADING**

<table>
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<tbody>
<tr>
<td>96-100</td>
<td>A</td>
<td>superior work</td>
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<tr>
<td>91-95</td>
<td>A-</td>
<td></td>
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<tr>
<td>87-90</td>
<td>B+</td>
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</tr>
<tr>
<td>84-86</td>
<td>B</td>
<td>satisfactory, but undistinguished work</td>
</tr>
<tr>
<td>80-83</td>
<td>B-</td>
<td></td>
</tr>
<tr>
<td>77-79</td>
<td>C+</td>
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**GRADE REQUIREMENT FOR MLIS STUDENTS:**

If you are pursuing the MLIS degree, you need to earn at least a B to pass this course. See the policy at: [http://www4.uwm.edu/sois/programs/graduate/mlis/degreereq.cfm](http://www4.uwm.edu/sois/programs/graduate/mlis/degreereq.cfm)

**UWM ACADEMIC POLICIES**

571 – Information Access and Retrieval
The following links contain university policies affecting all SOIS students. Many of the links below may be accessed through a PDF-document maintained by the Secretary of the University: https://www4.uwm.edu/secu/news_events/upload/Syllabus-Links.pdf. It contains information on policies regarding students with disabilities, religious observances, students called to active military duty, incompletes, discriminatory conduct, academic misconduct, complaints, grade appeal procedures, and examinations/finals. For graduate students, there are additional guidelines from the Graduate School (https://uwm.edu/graduateschool/masters-toolbox/).