UNIVERSITY OF WISCONSIN-MILWAUKEE
SCHOOL OF INFORMATION STUDIES

891 – Advanced Topics in Library and Information Science:
Informetrics and Scholarly Communication
Syllabus – Spring 2015
DRAFT

Instructor: Dietmar Wolfram
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Fax: 414-229-6699

Meeting Times: Thursdays, 9:30am – 12:10pm  Lubar Hall S233
Office Hours: TBA

DESCRIPTION:

Provides advanced treatment of scholarly communication, the quantitative study of information production and use, informetric data modeling, research assessment, and applications in information studies scholarship and practice.

3 credits

PREREQUISITES: Research methods or a statistical methods course for the social sciences; or permission of the instructor.

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

- Understand and analyze developments in scholarly communication and informetrics
- Analyze regularities in the way information is produced and used using state-of-the-art tools for data analysis and visualization
- Synthesize and apply informetric techniques to the analysis of recorded discourse
- Critically evaluate information resources and activities relevant to scholarly communication
- Apply quantitative techniques to the assessment of research and scholarship

ALA COMPETENCIES: This course addresses the following ALA competencies:

- Concepts and issues related to the lifecycle of recorded knowledge and information, from creation through various stages of use to disposition.
- The application of information, communication, assistive, and related technology and tools consistent with professional ethics and prevailing service norms and applications. (Note: This is relevant to the application of cybermetric methods and data collection).
- The fundamentals of quantitative and qualitative research methods.
- The central research findings and research literature of the field.
METHOD: Lecture/Seminar

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

TEXT


Readings also will be assigned from a variety of sources available through the course D2L website or publicly on the Web.

There will be required readings for each week plus suggested readings for those interested in learning more about the specific topics.

COURSE SCHEDULE AND READINGS:

Week  
1  Overview - The Study of Information Production and Use, History and Current Status  
2  Scholarly Communication  
3  Classic Informetric Laws and Areas of Study  
4  Citation Analysis I – Citation-based Measures, H-indices, Journal-based indices  
5  Citation Analysis II – Co-citation Analysis and Citer-based Measures  
6  Mapping Scholarly Communication & Knowledge Domains  
7  Network Analysis for Scholarly Communication  
8  Tools for Network Analysis  
9  Language Use & Text Studies – Text Mining & Language Modeling  
10  Cybermetrics/Webometrics  
11  Altmetrics: Using Social Media for Assessment  
12  Applications for Information Retrieval & Policy Development  
13  Information Production and Use in the 21st Century  
14  Work on Projects  
15  Discussion of Projects/ Review
ACADEMIC POLICIES

Academic policies may be found on the UWM Web site at: http://www.uwm.edu/Dept/Acad_Aff/policy/uniformsyllabus.html. Additional policies may be found at the end of the syllabus.

ASSIGNMENTS

Assignments are due on the specified dates. Grades will be reduced for late papers (one full grade for each week or part thereof) unless there are extenuating circumstances. Written assignments are to be word-processed. Submissions are to be double-spaced using a 12-point font with 1 to 1.25 inch margins. 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). 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 is available at: http://www.libraryspot.com/grammarstyle.htm.

There will be three assignments:

1. Essay on Informetic Regularities - Due Week 5
2. Data Analysis Exercise Using Selected Software – Due week 10
3. Final Project - Due in two parts
   3.1 Topic proposal - Due Week 8
   3.2 Completed paper – Due Week 15

CLASS PARTICIPATION

It is expected that students will be active participants in the weekly discussions in class, along with at least a subset of the guest chats. Participation implies discussion contributions that are productive and insightful, and that integrate the weekly readings.
EVALUATION

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<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Essay</td>
<td>20%</td>
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<tr>
<td>Data Analysis Exercise</td>
<td>20%</td>
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<tr>
<td>Final Project</td>
<td>35%</td>
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<tr>
<td>Class Participation</td>
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<table>
<thead>
<tr>
<th>Score Range</th>
<th>Grade</th>
<th>Description</th>
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<tbody>
<tr>
<td>95-100</td>
<td>A</td>
<td>superior work</td>
</tr>
<tr>
<td>91-94</td>
<td>A-</td>
<td>satisfactory, but undistinguished work</td>
</tr>
<tr>
<td>87-90</td>
<td>B+</td>
<td>work is below standard</td>
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<tr>
<td>84-86</td>
<td>B</td>
<td>work is below standard</td>
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<tr>
<td>80-83</td>
<td>B-</td>
<td>work is below standard</td>
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<tr>
<td>77-79</td>
<td>C+</td>
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<tr>
<td>74-76</td>
<td>C</td>
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</tr>
<tr>
<td>70-73</td>
<td>C-</td>
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<td>67-69</td>
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<td>64-66</td>
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<tr>
<td>60-63</td>
<td>D-</td>
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<td>below 60</td>
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ADDITIONAL READINGS AND INFORMATION SOURCES

Monographs


Professional Societies
Association for Information Science and Technology (ASIS&T) – www.asis.org
The International Society for Scientometrics and Informetrics (ISSI) - www.issi-society.org
Society for Social Studies of Science (4S) - http://www.4sonline.org/

Relevant Journals
Most library and information science journals publish articles with a metrics or scholarly communication theme. Specific journals with primarily metrics-themed content include:


*Cybermetrics* (open access) - http://www.cindoc.csic.es/cybermetrics/cybermetrics.html
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**ISSI Newsletter** - [http://www.issi-society.info/newsletter.html](http://www.issi-society.info/newsletter.html)


**Scientometrics** - [http://www.springer.com/computer/database+management+%26+information+retrieval/journal/11192](http://www.springer.com/computer/database+management+%26+information+retrieval/journal/11192)

**Webology (open access)** - [http://www.webology.ir/](http://www.webology.ir/)

**UWM ACADEMIC POLICIES**

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: [http://www.uwm.edu/Dept/SecU/SyllabusLinks.pdf](http://www.uwm.edu/Dept/SecU/SyllabusLinks.pdf). For graduate students, there are additional guidelines from the Graduate School ([http://www.graduateschool.uwm.edu/students/](http://www.graduateschool.uwm.edu/students/)), including those found in the Graduate Student and Faculty Handbook: [http://www.graduateschool.uwm.edu/students/policies/expanded/](http://www.graduateschool.uwm.edu/students/policies/expanded/).