Course Information

Semester: Spring 2009
Meetings: Wednesday 9:30 – 12:15 pm, LI031
Instructor: Dr. Ying Ding
Office Hours: Wednesday 2 – 5 pm or by appointment
Contact: dingying@indiana.edu
812-855-5388 (phone)
812-855-6166 (fax)

Course Description:

S519 addresses issues of performance measurement and methodology in the evaluation of information systems and services. The roles of objectives, performance measures, data collection approaches, and analytical approaches will be considered. Evaluation and assessment of information system efficiency and effectiveness are often neglected. A fair evaluation is inherently difficult to accomplish, particularly in the context of locally-developed information system applications. Yet, managers and funding bodies often wonder if a particular system is achieving the goals for which it was designed. Using published case studies of organizational information systems, each student in this course will learn and assess different techniques of system evaluation. On the other side, this course also addresses some basic knowledge of social statistics including descriptive statistics and inferential statistics.

Upon completion of this course, you should be able to:

• Acquire a concept of system evaluation and its meaning in practice;
• Become familiar with technical and social aspects of the systems that are applicable in different organizations;
• Use social statistics to analyze data
• Gain critical perspectives on reading materials available to you;
• Understand and conduct different techniques used for system evaluation;
• Develop skills in evaluating information systems from the socio-technical perspective;
• Analyze a variety of system evaluation tools and techniques and their appropriateness

Textbooks:

Required Textbook:


*Note*: Textbooks are available at Boxcar Books (www.boxcarbooks.org), a non-profit organization located at: 310A S. Washington St. Bloomington, IN 47401.

You can also find most of the articles on the E-reserves system. E-reserve URL: http://ereserves.indiana.edu/coursepage.asp?cid=416 [Password: strawberry]

### Course Schedule and Readings by Week:

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<th>Date</th>
<th>Topic</th>
<th>Assignment</th>
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<td>Week 1.</td>
<td>Introduction</td>
<td>Form a project groups</td>
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<tr>
<td>(1/14/09)</td>
<td>Overview of syllabus</td>
<td>Think about project topic</td>
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<td>Social Statistics</td>
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<td>Reading discussion</td>
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<td>Week 2.</td>
<td>What is evaluation?</td>
<td>Group Project</td>
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<td>(1/21/09)</td>
<td>Mean, Median, Mode</td>
<td>Stat Homework 1</td>
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<td>Week 3</td>
<td>Evaluation Criteria</td>
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<td>(1/28/09)</td>
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<td>March 5</td>
<td>Stat Homework 1 due</td>
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<td>Project Group formed</td>
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<td>Week 4.</td>
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<td>(2/04/09)</td>
<td>Chart</td>
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<td>Week 5.</td>
<td>Analyzing data – value &amp; importance</td>
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<td>Correlation</td>
<td>Stat Homework 3</td>
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<td>Reading discussion</td>
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<td>Week 6.</td>
<td>Analyzing data - Merit</td>
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<td>(2/18/09)</td>
<td>Hypothesis</td>
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<td>Reading discussion</td>
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| Week 7. (2/25/09) | • Analyzing data - Synthesis  
• Probability and normal curve  
• Reading discussion | Group Project |
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<td><strong>Stat Homework 3 due</strong></td>
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| Week 8. (3/04/09) | • Inferential Statistics  
• Significance  
• t test  
• Reading discussion | Group Project |
| Week 9. (3/11/09) | • t test  
• ANOVA  
• Reading discussion | Group Project  
Stat Homework 4 due |
| **Mid-term project report due** | | |
| Week 10. (3/18/09) | No Class – Spring Break | |
| Week 11. (3/25/09) | • Analyzing data - Rank  
• Factor analysis  
• Reading discussion | Group Project |
| **Stat Homework 4 due** | | |
| Week 12 (4/01/09) | • Evaluation Report  
• Correlation Coefficient  
• Reading discussion | Group Project  
Report |
| Week 13. (4/08/09) | • Meta evaluation  
• Linear regression | Group Project  
Report |
| Week 14. (4/15/09) | • Chi-square  
• Reliability and validity  
• Wrap up | Group Project |
| Week 15. (4/22/09) | Project Presentations | |
| Week 16. (4/29/09) | Project Presentations | |
| May 6, 2009 | Final Project due at 5pm | |

**Bibliographical References of Readings:**

**Week 1:** Introduction of the course and cases  
• Skim: ISWORLD site on Information Systems Effectiveness at http://business.clemson.edu/ISE/

Cases

• John Fluevog Boots & Shoes; read also Taylor (2006). To charge up customers, put customers in charge [e-reserves], http://www.fluevog.com/files_2/os-1.html

• Quadrem (eMarketPlace solution provider): http://www.quadrem.com/

• The MoMA's new membership management system http://www.lansa.com/casestudies/moma.htm

• Evergreen (digital library system): http://open-ils.org/

• DSpace (digital library system): http://www.dspace.org

• Zipcar: http://www.computerworld.com/action/article.do?command=viewArticleBasic&a rticleId=9030598&intsrc=cs_li_latest

• LibraryThing: http://www.librarything.com/


Week 2: Understanding evaluation

Week 3: Identifying issues & formulating questions

Week 4: Basics of Survey
5. Van Bennekom Chapters 1 & 2.
6. Van Bennekom Chapters 3 & 4

Week 5: Administering surveys/qualitative method
7. Van Bennekom, Chapter 5

**Week 6:** System/software quality; Information/data quality

**Week 7:** Introduction to data analysis
11. Van Bennekom, Chapter 6

**Week 8:** More on data analysis
13. Van Bennekom, Chapter 7
14. Van Bennekom, Chapter 8

**Week 9:** System/information use

**Week 11:** User satisfaction

**Week 12:** Service quality
WrapUp

Others Optional Readings:

Practical considerations in evaluation & Politics of evaluation

Identifying issues & formulating questions

System/software quality; Information/data quality


System/information user


User satisfaction


Service quality


Administering surveys/qualitative method


**Homework and Class Exercise:**
There are four assignments on social statistics (individual work), a group project to evaluate a system (group work), and final presentation (individual work)
Social Statistics Assignments
These assignments aim to practice and enhance basic social statistic skills. Questions in assignments are coming from Salkind’s textbook.

Requirement:
- Please show clear screenshot of the Excel on how you draw your conclusion and how the formula was created.
- If it is required to be done by hand, please show me the detailed steps on how you draw your conclusion.

Group Project
Description: Form a project group with no more than 5 persons, select one system to evaluate, conduct the evaluation based on the textbook of Jane Davidson, write the final project report according to Page 6-7 in Jane Davidson's book. Some statistical methods are required to analyze your data and draw your conclusion.

Project Report: It should be around 10-15 pages and contains at least the following information:
- The purpose of your evaluation (mid-term project report)
- The evaluation criteria (mid-term project report)
- Data collection (mid-term project report)
- Data analysis
- The hypotheses
- Statistical analysis
- Conclusion
- Future work
- Lessons-learned

More details about the group project including potential topics and data collection are stated here (include group project.doc).

Reading discussion
You need to select one paper listed in the reading list based on your interest. Then you need to read these papers carefully and prepare around 10 Power Point slides to present in the class during the reading discussion session, then propose some important topics to discuss and lead the related discussion.

Project Presentation
By the end of the course, you are requested to present your group project during the class. It should be around 10 Power Point Slides to include the following points:
- Introduction of your group project
- Your role and your contribution in your group project
- Result of your group project
- Future work of your group project

You will grade other group project presentations. So on the group project presentation day, please raise your questions and give your opinions through grading or discussing.
Course Deliverables and Grading:

Readings will be assigned to individual students who will lead the discussion during the class. The latest information about the class will be communicated via a class mailinglist. Your grade will be based on four individual assignments, two group assignments, participation and oral presentation:

Four individual assignments (four statistic homework): 10% each
Group Project Reports (mid-term report and final report – group report): 15% each
Participation in data collection activities and classroom activities and discussion: 15%
Oral presentation of the final project (individual presentation): 15%
Course Feedback (email me the course feedback): extra credit

SLIS Grading Policy

The following definitions of letter grades have been defined by student and faculty members of the Curriculum Steering Committee and have been approved by the faculty as an aid in evaluation of academic performance and to assist students by giving them an understanding of the grading standards of the School of Library and Information Science.

A 4.0 Outstanding achievement. Student performance demonstrates full command of the course materials and evinces a high level of originality and/or creativity that far surpasses course expectations.
A- 3.7 Excellent achievement. Student performance demonstrates thorough knowledge of the course materials and exceeds course expectations by completing all requirements in a superior manner.
B+ 3.3 Very good work. Student performance demonstrates above-average comprehension of the course materials and exceeds course expectations on all tasks as defined in the course syllabus.
B 3.0 Student performance meets designated course expectations and demonstrates understanding of the course materials at an acceptable level.
B- 2.7 Marginal work. Student performance demonstrates incomplete understanding of course materials.
C+ 2.3 Unsatisfactory work. Student performance demonstrates incomplete and inadequate understanding of course materials.
C 2.0 Unsatisfactory work. Coursework performed at this level will not count toward the MLS or MIS degree. For the course to count toward the degree, the student must repeat the course with a passing grade.
D+ 1.3 Unsatisfactory work. Coursework performed at this level will not count toward the MLS or MIS degree. For the course to count toward the degree, the student must repeat the course with a passing grade.
D- 0.7 Failing. Student may continue in program only with permission of the Dean.

To receive a passing grade in this course, you must turn in all of the assignments and the term project and complete all the presentations. You cannot pass this course without
doing all of the assigned work (which includes the final presentation), however, turning in all of the work is not a guarantee that you will pass the course.