

# **Health Services M422: Practices of Evaluation in Health Services**

***Winter Quarter 2006***

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## **Instructors:**

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**HS M422:**  
**PRACTICES OF EVALUATION IN HEALTH SERVICES**  
**Winter 2005, M/W 10:00-12:00 P.M.**  
Room 61-269 CHS

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HS M422 Web Site

[http://www.ph.ucla.edu/hs/hs\\_422\\_w06.html](http://www.ph.ucla.edu/hs/hs_422_w06.html)

### **Learning Objectives & Competencies**

This course will provide students with an understanding of the critical role of systematic evaluation in assessing the effectiveness of health services. Students will learn a **systematic approach** to conceptualizing, designing, implementing, and evaluating the impact of a new or existing service, product, policy, or organizational change intervention. Students will be exposed to the basic theoretical concepts as well as the methodology of program evaluation. The primary focus will be on **practical application** of evaluation principles and methods.

The specific learning objectives for this course are outlined below. Achievement of learning objectives should provide students with the competency to practice evaluation and/ or interface with professional evaluators at entry-level career. Instructors will assess learning objectives through performance on individual and team assignments, exam, and oral and written communications and presentations.

### **Collaboration and Communication**

1. Use effective oral and written communication techniques to fulfill course assignments and to interface effectively with students, teams, and instructors.

### **Conceptualization**

1. Describe the four major stages of comprehensive evaluation (conceptualization, design, implementation, and impact assessment).
2. Conduct library and internet research to identify peer-reviewed journal articles addressing specific interventions and evaluation designs.
3. Develop conceptual skills through working individually and with teams to identify a researchable evaluation issue, analyze underlying causes, and propose potential solutions.
4. Apply organizational, behavioral or other theory to specify and operationalize the dependent and independent variables and possible interventions for the evaluation proposal.
5. Apply principles of evidence-based medicine and evidence-based management to the interpretation of clinical and practice data.
6. Analyze strengths and weaknesses of published evaluation.

### **Design Phase**

1. State clear and measurable program objectives for an intervention and/or evaluation.
2. Understand and apply research design (pre-experimental, quasi-experimental, and experimental).
3. Explain threats to internal and external validity for each research design.
4. Discuss measurement issues, e.g., level of measurement (nominal, ordinal, interval, ratio), establishing validity and reliability.
5. Specify the target population and the unit of observation/ analysis.
6. Develop a data collection plan and identify instrument(s) for data collection.
7. Understand how to pilot test data collection instruments.
8. Discuss design issues such as sampling strategy and random assignment.

### **Evaluating Program Implementation**

1. Create an implementation plan and a process monitoring system to examine the extent to which the intervention is being implemented as planned.
2. Understand the value of a management information system (MIS) and/or clinical information system (CIS) for monitoring progress and resource expenditures.

### **Impact Assessment**

1. Work with a team to prepare and present a comprehensive evaluation proposal including a plan for impact assessment.
2. Understand the strengths and limitations of quantitative and qualitative data and the use of data triangulation for analyzing research findings from multiple data sources.
3. Compare cost-utility, cost-benefit, and cost-effectiveness analysis.

### **Learning and Performance Improvement**

1. Analyze how relevant measurable evaluation results can be used for improving the IOM aims for safe, effective, patient-centered, timely, efficient, and equitable care. [Refer to Institute of Medicine, 2001. *Crossing the Quality Chasm*. Washington DC: National Academy Press]

### **Professionalism**

1. Promote and adhere to high standards for personal and organizational integrity, honesty, and respect for others.
2. Promote the development of professional roles/ values that are compatible with improving population and individual health.
3. Value lifelong learning in order to develop and improve professional competencies through continuous learning, education, and professional advancement.

### **Course Requirements**

**1. Class Participation and Attendance (10-points).** In general the two-hour class will be divided into part-1: lecture/ discussion and part-2: team meetings. Over the quarter each student will be randomly asked to respond to 1-2 questions about assigned readings. Additionally, attendance will be recorded and attending presentation and reflection sessions at the end of the quarter is required and will be figured in to the final grade.

**2. Team Assignments & Individual Literature Review Paper (30-points).** Teams consisting of 6-students each will be assigned on **Wednesday, January 11**. Individuals on each team will select one of the topics below for the individual literature review paper. Each team needs to produce a literature review on all 6 topics, but this assignment will receive an "individual" grade only. The papers are due in class on **Monday, February 6**. Late papers will lose points.

### **Evaluating Patient Safety Practices**

At its annual quality forum in December, 2004, Institute for Healthcare Improvement (IHI) launched a campaign in US hospitals to save 100,000 lives through 6 evidence based practices (see [www.ihl.org/IHI/Programs/Campaign](http://www.ihl.org/IHI/Programs/Campaign)).

For the Team Proposal each member of your group must pick one of the six practices and design an evaluation of its effectiveness. As a team, you must use a common methodology and common data sources. You must jointly plan the use of common resources. Teams consisting of 6 members each will be formed early in the quarter. For the literature review assignment (individual grade), each member conducts literature review on one of the following six practices:

- (a) Rapid Response Teams.
- (b) Improved Care for Acute Myocardial Infarction (AMI).
- (c) Prevention of Adverse Drug Events (ADEs).
- (d) Prevention of Central Line Associated Bloodstream Infection.
- (e) Prevention of Surgical Site Infection.
- (f) Prevention of Ventilator Associated Pneumonia

The literature review paper should include the following sections: (1) evaluation question, (2) report on evaluation literature including a minimum of 10 citations, 2000-2006, (3) synthesis/ summary of findings, (4) strengths and limitations of evaluation studies cited, (5) implications for future evaluation, and (6) reference list using any standard format, e.g., APA. The paper should be a minimum of approximately 7 double spaced pages, not to exceed 20 double spaced pages of text (not including references).

**3. Mid-Term Exam (25-points).** This in-class, closed book exam will focus on evaluation design. You will be given a brief case on a patient safety program. Using Campbell and Stanley notation and text description, you will be asked to: (a) propose 3 different designs that might be used to evaluate the program's effectiveness, (b) discuss strengths and weaknesses of each design in terms of internal and external validity, and (c) select the strongest design that is also feasible and practical to implement.

**4. Team Proposal – Final Paper (30-points).** About half way through the term (**February 6**), you will begin work on the team assignment that brings together into one program the 6-evidence-based practices for improving patient safety. Each team will be randomly assigned an evaluation design for their proposal: (1) experimental, (2) quasi-experimental, (3) pre-experimental, and (4) observational. Each team will develop and present a proposal to the entire class. Your oral presentation can earn up to **10 points**. Your written contribution to the team proposal can earn up to **20 points**. An outline for the written component of the team proposal will be provided about mid-term. Refer to web Site for proposal outline.

**5. Peer-Evaluation Rating (5-points).** Multi-rater peer evaluation is one method for assessing individual performance on a team. Your assessment of peer's participation in preparing the Team Proposal will serve as input to the instructors for determining final course grades.

**Maximum course credit is 100 possible points (80% is individual performance and 20% is team performance). The student's letter grade will be determined as follows:**

<b>Points</b>	<b>LETTER GRADES</b>
98 – 100	A+
93 – 97	A
90 – 92	A-
88 – 89	B+
83 – 87	B
80 – 82	B-
78 – 79	C+
73 – 77	C
70 – 72	C-
Below 70	F

Excellent work showing mastery of principles and extra effort on design is required for an A. Good, solid work is required for a B. It is possible to get below a B.

## READINGS

### The required text for this course is:

David Grembowski. *The Practice of Health Program Evaluation*. Sage Publications, Inc.: Thousand Oaks, CA (2001).

### The required supplementary readings are:

- Atkins, D., Best, D., Briss, P. A., Eccles, M., Falck-Ytter, Y., Flottorp, S., et al. (2004). Grading quality of evidence and strength of recommendations. *Bmj*, 328(7454), 1490.
- Bagian, J.P., Gosbee, J., Lee, C.Z., Williams, L., Scott, S.D., and Mannos, D.M. "The veterans affairs root cause analysis system in action." *Joint Commission Journal on Quality Improvement*, 2002, 28 (10):531-545.
- Davidson, P.L., Carreon, D.C., Baumeister, S.E., Nakazono, T.T., Gutierrez, J.J., Afifi, A., and Andersen, R.M. "Influence of Community-Based Dental Education and Contextual Variables on Practice Intentions of Dental School Seniors. Manuscript submitted to *Social Science & Medicine* (October 7, 2005).
- Davidson, P.L., Griffith, J.G., Sinioris, M., and Carreon, D.C. "Evidence-Based Leadership Development for Improving Organizational Performance." Manuscript submitted to *Joint Commission Journal on Quality and Patient Safety* (November 20, 2005).
- Henderson, H., German, V. F., Panter, A. T., Huba, G. J., Rohweder, C., Zalumas, J., et al. (1999). Systems change resulting from HIV/AIDS education and training. A cross-cutting evaluation of nine innovative projects. *Eval Health Prof*, 22(4), 405-426.
- Krugman, M. and Smith, V. "Charge nurse leadership development and evaluation." *JONA* 2003, 33 (5): 284-292.
- Landon, B. E., Wilson, I. B., McInnes, K., Landrum, M. B., Hirschhorn, L., Marsden, P. V., et al. (2004). Effects of a quality improvement collaborative on the outcome of care of patients with HIV infection: the EQHIV study. *Ann Intern Med*, 140(11), 887-896.
- Mittman, B. S. (2004). Creating the evidence base for quality improvement collaboratives. *Ann Intern Med*, 140(11), 897-901.
- Moher, D., Schulz, K. F., & Altman, D. (2001). The CONSORT statement: revised recommendations for improving the quality of reports of parallel-group randomized trials. *Jama*, 285(15), 1987-1991.
- Muller, M. (2005). "Increasing safety by implementing optimized team interaction - Experiences of the aviation industry.
- Scherger, J.E. (2006 forthcoming). "Patient Safety: What does it mean in the United States?" In Porszolt, F. and Kaplan, RM (Editors), *Value for Patients*, New York: Springer.
- Wennberg, J. E., Fisher, E. S., Baker, L., Sharp, S.M., Bronner, K.K. (2005). Evaluating the efficiency of California providers in caring for patients with chronic illness. *Health Aff - Web Exclusive (Millwood)*.
- Yassi, A., Cooper, J.E., Tate, R.B., Gerlach, S., et al., (2001). A randomized controlled trial to prevent patient lift and transfer injuries of health care workers. *Spine* 26 (16): 1739-1746.

The text will be available in the **HEALTH SCIENCES BOOK STORE** and the readings are available in PDF format from the course website.

**HS M422: Practices of Evaluation in Health Services**  
**CLASS SCHEDULE/ WINTER 2006**  
 (Last Revised: 1-2-06)

DAY	DATE	TOPIC	LECTURE	TEXT	ADDITIONAL READINGS & ASSIGNMENTS
Monday	Jan 9	1.Introduction: Health Policy & Program Evaluation 2. Evaluation Process	Kaplan  Davidson	Chapter 1  Chapter 2	<ul style="list-style-type: none"> <li>• Course Overview</li> <li>• Introduction to HS422 WEB SITE for obtaining HS422 course materials and readings</li> <li>• Reading from WEB SITE: - Wennberg, J.E., et al., (2005)</li> </ul>
Wednesday	Jan 11	Developing Evaluation Questions	Kaplan	Chapter 3	<ul style="list-style-type: none"> <li>• Passenger and Patient Safety</li> <li>• Readings from WEB SITE: Scherger (2006 forthcoming) in Porszolt and Kaplan (editors); Muller (2005)</li> <li>• Assign Teams &amp; Individual Literature Review Assignments (Teams consist of 6 individuals)</li> <li>• Note: Instructors reserve the right to reform teams</li> </ul>
Monday	Jan 16	HOLIDAY			
Wednesday	Jan 18	Pre-Experimental Designs & Threats to Validity	Davidson	Chapter 4 Pages 70-83	<ul style="list-style-type: none"> <li>• Readings from WEB SITE: Davidson, Carreon, et al., (2006 forthcoming); Henderson, et al., (1999)</li> </ul>
Monday	Jan 23	Experimental Designs	Kaplan	Chapter 4 Pages 83-89	<ul style="list-style-type: none"> <li>• Reading from WEB SITE: Yassi, et al., (2001)</li> </ul>
Wednesday	Jan 25	Quasi-experimental & Observational Designs	Tiffany Quock	Chapter 4 89-113	<ul style="list-style-type: none"> <li>• Reading from WEB SITE: Landon, et al., (2004); Mittman (2004)</li> </ul>
Monday	Jan 30	REVIEW	Davidson		<ul style="list-style-type: none"> <li>• Team meetings</li> </ul>
Wednesday	Feb 1	In-Class Mid-Term Exam			<ul style="list-style-type: none"> <li>• <b>BRING BLUE BOOKS TO CLASS</b></li> </ul>

DAY	DATE	TOPIC	LECTURE	TEXT	ADDITIONAL READINGS & ASSIGNMENTS
Monday	Feb 6	Evaluation Design Proposal Assignments	Davidson/ Kaplan		<ul style="list-style-type: none"> <li>• Individual Literature Review Assignments Due</li> <li>• Assign Evaluation Designs to Teams</li> <li>• Teams self manage and assign weekly deliverables</li> <li>• Note: Instructors reserve the right to reform teams.</li> </ul>
Wednesday	Feb 8	Evaluating Program Implementation	Davidson	Chapter 6	<ul style="list-style-type: none"> <li>• Reading from WEB SITE: <b>(1) Bagian, et al., (2002); (2) Krugman and Smith (2003)</b></li> <li>• Team meetings</li> </ul>
Monday	Feb 13	Evidence-Based Leadership Development	Davidson		<ul style="list-style-type: none"> <li>• Reading from WEB SITE: <b>Davidson, Griffith, et al " (2006 forthcoming)</b></li> <li>• Team meetings</li> </ul>
Wednesday	Feb 15	Cost Effectiveness Evaluation	Kaplan	Chapter 5	<ul style="list-style-type: none"> <li>• Team meetings</li> </ul>
Monday	Feb 20	<b>HOLIDAY</b>			
Wednesday	Feb 22	Evidence-Based Medicine	Kaplan		<ul style="list-style-type: none"> <li>• Reading from WEB SITE : <b>Atkins, et al., (2004)</b></li> <li>• Team meetings</li> </ul>
Monday	Feb 27	Selecting the Population/ Sampling	Andersen	Chapter 7	<ul style="list-style-type: none"> <li>• Team meetings</li> </ul>
Wednesday	Mar 1	Measurement Data Collection	Kaplan	Chapter 8	<ul style="list-style-type: none"> <li>• Team meetings</li> </ul>
Monday	Mar 6	Consort Guidelines for Data Analysis/ Reporting	Kaplan	Chapter 9	<ul style="list-style-type: none"> <li>• <b>Moher, Schulz and Altman (2001)</b></li> <li>• Team meetings</li> </ul>
Wednesday	Mar 8	Class Presentations	2 Teams		
Monday	Mar 13	Class Presentations	2 Teams		<ul style="list-style-type: none"> <li>• Course Evaluations</li> </ul>
Wednesday	Mar 15	Evaluation Design: Lessons Learned from 4 Design Proposals	Learnings & Reflections		<ul style="list-style-type: none"> <li>• Multi-Rater Peer Evaluations</li> </ul>
Monday	Mar 20				<ul style="list-style-type: none"> <li>• <b>Final Proposals Due 5:00 P.M.</b></li> </ul>