

**Social Work 683 – Evaluation in Social Work – Winter 2010**

**Credit Hours:** 3  
**Prerequisites:** SW522 or permission of instructor  
**Meet:** Wednesdays 2:00 p.m. to 5:00 p.m. in SSW 3752  
**Instructor:** Daphne C. Watkins, PhD  
**Office:** 3841 SSW  
**Phone:** 734-763-1540  
**Email:** daphnew@umich.edu (*best way to contact me*)

**Course Description:**

This course will cover beginning level evaluation that builds on basic research knowledge as a method of assessing social work practice and strengthening clients, communities and the social programs, and the systems that serve them. It thus addresses the evaluation of promotion, prevention, treatment, and rehabilitation services. Students will learn to assess and apply evaluation methods from various perspectives, including scientific, ethical, multicultural, and social justice perspectives.

**Course Content:**

This course will focus on the direct application of the analytical skills associated with developing and implementing evaluation designs appropriate for social work practice. Students will examine the evaluation of social work programs with particular attention to populations at risk, including people of color, women, the poor, and gay and lesbian groups. Students will be introduced to models of evaluation derived from social science and social work theory and research. They will learn to apply these models as they develop skills in critically assessing evaluation methods and their fit with the social context.

**Course Objectives:**

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

1. Understand the various types of evaluation that are appropriate to answer questions consonant with a program's developmental stage.
2. Specify a program for evaluation including its theory of change.
3. Develop skills in logic modeling.
4. Plan an outcome evaluation of a social work program.
5. Understand dissemination strategies that engage the policy and/or practice communities with the results and findings of evaluation activities in order to foster changes in policies and programs.
6. Critically evaluate existing evaluation studies for their consistency with the values reflected in the curricular themes.

### Relationship of This Course to the Four Curricula Themes:

<b>Multi-culturalism &amp; Diversity:</b>	Students will develop the capacity to identify ways in which dimensions of diversity (ability, age, class, color, culture, ethnicity, family structure, gender [including gender identity and gender expression], marital status, national origin, race, religion or spirituality, sex, and sexual orientation) influence evaluation processes and outcomes. Because a collaborative, participatory process is critical to evaluation of social work interventions, attention to diversity is imperative for proper implementation of evaluation in social work contexts.
<b>Social Justice:</b>	Students will develop the capacity to analyze the impact and efficiency of services and policies as they relate to social change and social justice. Participatory, collaborative, change-oriented evaluation processes and appropriate dissemination activities can promote the achievement of social justice and change and therefore are emphasized in the class. Also important are an examination of the role of power in evaluation and the development of knowledge, skills, and capacities that participants of evaluation can mobilize to shift imbalances of power and resources.
<b>Promotion, Prevention, Treatment &amp; Rehabilitation</b>	Students will develop the capacity to develop and evaluate prevention and promotion as well as rehabilitation programs that are designed to reduce risk of onset of problems and promote healthy development.
<b>Behavioral and Social Science Research:</b>	Students will strengthen their capacity to use theoretical and empirical social science literature to develop and understand whether interventions are appropriately designed and scientifically sound.
<b>SW Ethics and Values:</b>	This course will emphasize the relationship of the NASW'S Code of Ethics, specifically those sections pertaining to the core values and ethical principles of social work as well as the standards of research and evaluation that under gird ethical behavior in the conduct of scientific evaluations. Additionally, this course will emphasize the relationship between the NASW'S Code of Ethics and other ethical codes governing evaluation research such as the Nuremberg Code, Declaration of Helsinki, 1974 National Research Act (PL93-348) and the 1996 Health Insurance Portability and Accountability Act (HIPAA).

### Course Expectations:

Students are expected to complete all assigned reading assignments prior to the appropriate class and to use them as the basis for informed participation in class discussions. Any plagiarized work in this class will result in failing the course and there may be further ramifications. It is expected that students will submit work on time. Failure to meet these expectations may result in grade reductions.

Class time is not to be used to check email, surf the web, talk on the telephone or send or receive text messages. This course aims to provide students with methods and skills of social work evaluation as well as professional proposal writing skills in the evaluation of practice and services. Therefore, your undivided attention is required at all times.

### Course Design:

Many different methods will be used for acquiring knowledge and skills including: discussions, lectures, projects, and exercises. This course is designed to increase students' comfort level with evaluation methods in social work and to increase their appreciation of the relevance of evaluation for social work practice. The design of the course provides an opportunity to gain practice with using the tools of social work evaluation.

## Required Text:

Royse, D., Thyer, B.A., Padgett, D.K. (2010). *Program Evaluation: An Introduction*. (Fifth Edition) Belmont, CA: Thomson Brooks/Cole. [ISBN-10: 0495601667; ISBN-13: 978-0495601661]

## Supplemental Readings:

\* W.K. Kellogg Foundation (2004). *Logic Model Development Guide*, W.K. Kellogg Foundation: Battle Creek, MI (Available on C-Tools)

\* Other readings will be available online through the course tools (C-Tools) website, or will be provided by the instructor.

**REMEMBER: ALL ASSIGNED READINGS ARE TO BE COMPLETED PRIOR TO CLASS!!!**

## I. Course Requirements & Evaluation of Performance:

### 1. Article Analysis [15%]

Individually, students will read one of four articles that will be provided by the instructor and students will answer a series of questions associated with the article.

### 2. Peer-Facilitated Discussions and Activities [15%]

Starting on January 13<sup>th</sup>, two students will help to facilitate reflection on and discussion of weekly readings. Students will sign up for the topic and date of their choice on January 6<sup>th</sup>. Students are encouraged to use PowerPoint presentations, discussion questions, short (less than 15 minute) video-clips, role-playing exercises, and/or class activities. You will be graded by submitting a 1-page "lesson plan" to me at least 3 days in advance. Additionally, you will be graded on both facilitators being present and equally contributing (5 points) and whether both facilitators are well-prepared, draw from the course readings, and showed creativity and/or critical thinking in their lesson plan (10 points). In turn, the class will be responsible for fully answering their questions. For the discussants, be thoughtful in the questions that you ask so that students walk away from the discussion with a better understanding of the material. *Peer-facilitated discussions and activities should be approximately an hour long unless permission has been given by the instructor to extend the time.*

- ALL students are expected to have read the weekly readings and contribute to the discussions and activities. Students will sign up for their topic of interest no later than the FRIDAY of the first week of class.
- Students are expected to be *scholarly* and *creative* in leading these discussions. For example, students may choose to summarize weekly readings using PowerPoint presentations and use web resources or videos to expand these readings. Students may also implement role plays and short quizzes in their discussant roles. Students are encouraged to refer to the textbook for exercises and questions to use in discussions.

### 3. Program Specification Using Logic Model [15%]

In teams of four, students will design a logic model based on their proposed program evaluation in assignment #4. This written assignment requires the articulation of a program's theory of change using a one-page logic model. The logic model will include (1) a description of clients and system conditions that led to the need for the program, (2) major program components, (3) detailed activities, and (4) expected client outcomes. Include relevant theories, curriculums, and/or research

that inspired the development of the model. Include a Reference/Resource page to identify published references (theorists, research studies) and other source materials (i.e. program handbooks, interviews with program staff) used in the development of the model. The Program Evaluation Proposal (assignment #4) will be written using this same program. The logic model will be re-submitted as part of the Program Evaluation Proposal at the end of the semester.

**4. Program Evaluation Proposal [40%]**

In teams of four, students will design a Program Evaluation Proposal for the program specified in the first assignment. Components of the plan will include (1) the purpose of the evaluation and evaluation approach, (2) type of evaluation components planned and relevant key evaluation questions, (3) evaluation design selected, explanation of appropriateness, reasons why other more rigorous designs were not feasible, limitations of the design, (4) data collection schedule and narrative of measurement tools including an abstract (written by student) of a standardized outcome measure, (5) data analysis plan, and (6) a plan for reporting and utilizing the results. The program logic model and references are required attachments. The references should include published evaluations conducted on a similar population, similar program, and/or using similar methods. *[Students will be required to present a required oral presentation on their evaluation proposal during the last two class days. Students are encouraged to use PowerPoint for these oral presentations that will include the research question(s)/goals, methods (sampling, evaluation design, data collection, measures), analysis plan, strengths and limitations of the evaluation proposal.]*

**5. Class participation.** [15%] You will learn more if you participate; therefore, you will be evaluated on your class participation.

**6. Attendance.** You are expected to attend ALL class sessions. If you miss a class session for any reason, please contact one of your classmates to see what you missed. Each class session will include a 10-15 minute break halfway through the session.

**7. Grading Criteria for Written Assignments.** Each written assignment will be given a letter grade. The grade of A+ will rarely if ever be used, and, in general, students should not expect to receive this grade on an assignment, for it signifies work that clearly goes beyond the content of the course and the expertise students are expected to master. Other grades will be determined based on the following criteria: (1) grades of A or A- are reserved for student work which not only demonstrates very good mastery of content but which also shows that the student has undertaken a complex task, has applied critical thinking skills to the assignment, and/or has demonstrated creativity in her or his approach to the assignment. The difference between these two grades is determined by the degree to which these skills have been demonstrated by the student; (2) a grade of B+ is given to work which is judged to be very good -- this grade denotes that a student has demonstrated a more-than competent understanding of the material being tested in the assignment; (3) a grade of B is given to student work which meets the basic requirements of the assignment -- it denotes that the student has done adequate work on the assignment and meets basic course expectations; (4) a grade of B denotes that a student's performance was less than adequate on an assignment, reflecting only moderate grasp of content and/or expectations; (5) The grade of C reflect a minimal grasp of the assignment, poor organization of ideas and/or several significant areas requiring improvement; (6) grades between C- and F are applied to denote a failure to meet minimum standards, reflecting serious deficiencies in all aspects of a student's performance on the assignment.

Final grades will be assigned using the following scale:

A+ = 99 - 100	B+ = 86 - 89	C+ = 74 - 77
A = 95 - 98	B = 82 - 85	C = 70 - 73
A- = 90 - 94	B- = 78 - 81	C- = 66 - 69

## II. Summary and of Written Assignments and Grading

Article Analysis (individual)	15%
Peer-Facilitated Discussions and Activities (duo)	15%
Program Specification Using Logic Model (team)	15%
Program Evaluation Proposal (team)	40%
Part 1 (20%)	
Part 2 (20%)	
Class participation (individual)	<u>15%</u>
	<b>100% Total Course Grade</b>

## III. Other Things to Note About the Course

### ***A note about assignment submissions:***

All assignments should be submitted via the C-Tools Dropbox feature on the day and time it is due. Electronic mail attachment or hard copies will not be accepted.

### ***A note about grades:***

I will endeavor to always be honest about the work that you do. I feel that this will serve you better in the long term than false praise and reward. Likewise, I will always explain my grading clearly and document my explanations. If you ever have questions about a grade that you receive, you are always welcomed to talk with me about it.

### ***A note on work handed in late:***

I expect all students to submit their work in accordance with the class deadlines. In order to be fair, I have developed the following policy: late work will be graded down by one full grade each hour it is late UNLESS prior arrangements for an extension have been made with me. I know that extenuating circumstances may arise which make it difficult to turn in work on time. In such cases I expect for you to communicate with me if you need some kind of extension so that we can work out an arrangement that is mutually agreeable.

### ***Cell phones/pagers/PDAs:***

I expect that students will turn off (or mute) any pagers or cell phones, and only respond to pages or calls during the break or after class.

### ***Students with Disabilities:***

Any student who feels that he/she may need an accommodation for any sort of disability, please make an appointment to see me.

### ***Instructor Availability:***

I am available to meet with students outside of the classroom. Students are encouraged to meet with me during office hours or at other arranged times to 1) ask questions about the course material or assignments, 2) review graded work, 3) obtain suggestions for additional reading, and 4) discuss other topics related to the course or to social work evaluation in general.

### ***Scholarly Writing, APA Style***

You will be asked to demonstrate proper grammar, spelling, and the rules of the *American Psychological Association Publication Manual* (5<sup>th</sup> edition). You are not required to purchase the manual; however, I do encourage you to access it and other writing resources online (e.g., <http://apastyle.apa.org/> and/or <http://grammar.ccc.commnet.edu/grammar/>).

**Tentative Semester Schedule:**

<b>Class #</b>	<b>Date of Class</b>	<b>Topic</b>	<b>Readings</b> (To be completed <u>BEFORE</u> each class) <b>Assignments</b> (Due by Friday at 11:59pm each week)
1	1/6/10	Introduction and Course Overview / What is Evaluation?	<ul style="list-style-type: none"> <li>• Royse, Thyer, &amp; Padgett Chapter 1</li> <li>• Kellogg Chapter 2</li> <li>• Howell, E. M., &amp; Yemane, A. (2006). An assessment of evaluation designs: Case studies of 12 large Federal evaluations. <i>American Journal of Evaluation</i>, 27, 219.</li> </ul>
2	1/13/10	Ethical Issues and Moral Values in Evaluation	<ul style="list-style-type: none"> <li>• Royse, Thyer, &amp; Padgett Chapter 2</li> <li>• Royse, Thyer, &amp; Padgett Chapter 13</li> <li>• Alexander, L.B., &amp; Richman, K.A. (2008). Ethical dilemmas in evaluations using indigenous research workers. <i>American Journal of Evaluation</i>. 29(1), 73-85.</li> </ul>
3	1/20/10	Needs Assessment in Evaluation	<ul style="list-style-type: none"> <li>• Royse, Thyer, &amp; Padgett Chapter 3</li> <li>• Weaver, H.N. (1999). Assessing the needs of Native American communities: A northeastern example. <i>Evaluation and Program Planning</i>, 22, 155-161.</li> <li>• Blower, A., Addo, A., Hodgson, J., Lamington, L., &amp; Towison, K., (2004). Mental health of 'looked after' children: A needs assessment. <i>Clinical Child Psychology and Psychiatry</i>, 9(1), 117-129.</li> </ul> <p style="text-align: right;"><b>Article Analysis DUE</b></p>
4	1/27/10	Planning the Program and Logic Models	<ul style="list-style-type: none"> <li>• Kellogg Chapter 4 &amp; 5 "Planning Steps (1-4)"</li> <li>• Cockerill, R., Myers, T., &amp; Allman, D. (2000). Planning for community-based evaluations. <i>American Journal of Evaluation</i>, 21, 351-357.</li> </ul>
5	2/3/10	Types of Evaluation	<ul style="list-style-type: none"> <li>• Royse, Thyer, &amp; Padgett Chapter 5</li> <li>• Higgins, D.L., et al. (1996). Using formative research to lay the foundation for community level HIV prevention efforts: An example from the AIDS Community Demonstration Projects. <i>Public Health Reports</i>, 111, 28-35.</li> <li>• Jonkers, C., et al. (2007). Process evaluation of a minimal psychological intervention to reduce depression in chronically ill elderly persons. <i>Patient Education and Counseling</i>, 68, 252-257.</li> </ul> <p style="text-align: right;"><b>Logic Model DUE</b></p>
6	2/10/10	Sampling, Measurement, and Instruments	<ul style="list-style-type: none"> <li>• Royse, Thyer, &amp; Padgett Chapter 8</li> <li>• Royse, Thyer, &amp; Padgett Chapter 11</li> <li>• Royse, Thyer, &amp; Padgett Chapter 12</li> </ul>
7	2/17/10	Implementation and Data Collection	<ul style="list-style-type: none"> <li>• Kellogg Chapter 5 "Implementation Steps (5 &amp; 6)"</li> <li>• Royse, Thyer, &amp; Padgett Chapter 14</li> <li>• Royse, Thyer, &amp; Padgett Chapter 4</li> </ul>
8	2/24/10	Data Analysis and	<ul style="list-style-type: none"> <li>• Kellogg Chapter 5 "Implementation Steps (7)"</li> </ul>

		Interpretation	<ul style="list-style-type: none"> <li>• Kellogg Chapter 5 "Utilization Steps (8&amp;9)"</li> <li>• Royse, Thyer, &amp; Padgett Chapter 15</li> </ul> <p style="text-align: right;">-- Mid-term course assessments--</p> <p style="text-align: right;"><b>Program Evaluation Proposal—Part 1 DUE</b></p>
	3/3/10	<b>Winter Break</b>	<b>No Class</b>
9	3/10/10	Program Monitoring and Improvements	<ul style="list-style-type: none"> <li>• Royse, Thyer, &amp; Padgett Chapter 7</li> <li>• Funnell, S. C. (2000). Developing and using a program theory matrix for program evaluation and performance monitoring. <i>New Directions for Evaluation</i>, 87, 91-101.</li> <li>• Stadler, J., &amp; Hlongwa, L. (2002). Monitoring and evaluation of loveLife's AIDS prevention and advocacy activities in South Africa, 1999-2001. <i>Evaluation and Program Planning</i>, 25, 365-376.</li> </ul>
10	3/17/10	Single-System and Group Research Designs in Evaluation	<ul style="list-style-type: none"> <li>• Royse, Thyer, &amp; Padgett Chapter 6</li> <li>• Royse, Thyer, &amp; Padgett Chapter 9</li> <li>• Auslander, W., Haire-Joshu, D., Houston, C. &amp; Williams, J. H. &amp; Krebill, H. (2000). The short-term impact of a health promotion program for low-income African American women. <i>Research on Social Work Practice</i>, 10(1), 78-97.</li> </ul>
11	3/24/10	Cost-effectiveness in Evaluation Design	<ul style="list-style-type: none"> <li>• Royse, Thyer, &amp; Padgett Chapter 10</li> <li>• Rogers, E. S., Sciarappa, K., MacDonald-Wilson, K., &amp; Danley, K. (1995). A benefit-cost analysis of a supported employment model for persons with psychiatric disabilities. <i>Evaluation and Program Planning</i>, 18(2), 105-115.</li> <li>• Swisher, J.D., Smith, E.A., &amp; Vicary, J.R. (2004). A cost-effectiveness comparison of two approaches to life skills training. <i>Journal of Alcohol Drug Education</i>, 48(1), 71-87.</li> </ul>
12	3/31/10	Cultural Aspects of Program Evaluation	<ul style="list-style-type: none"> <li>• Royse, Thyer, &amp; Padgett Chapter 13</li> <li>• Martinez, C. R., &amp; Eddy, J. M. (2005). Effects of culturally adapted parent management training on Latino youth behavioral health outcomes. <i>Journal of Consulting and Clinical Psychology</i>, 73(5), 841-851.</li> <li>• Hecht, M L., Marsiglia, F. F., Elek, E., Wagstaff, D. A., Kulis, S., Dustman, P., Miller-Day, M. (2003). Culturally grounded substance use prevention: An evaluation of the keepin' it R.E.A.L. Curriculum. <i>Prevention Science</i>, 4(4), 233-248.</li> </ul>
13	4/7/10	Final Presentations	
14	4/14/10	Final Presentations	<b>Program Evaluation Proposal – Part 2 DUE</b>

## EVALUATION PROJECT: PROGRAM EVALUATION PROPOSAL GUIDELINES

Throughout the semester different parts of this assignment will be due. You may need to consult the library for additional literature on the population or the program that you plan to evaluate. Include in-text citations and create a reference page that follows APA guidelines.

<b>GUIDELINES FOR PART 1: "PRESENTATION OF THE PROBLEM"</b>
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This part of the evaluation proposal focuses on the presentation of your problem, program and/or the service that you plan to evaluate in part 2. Here you will clearly articulate the problem, program, and/or service and present a literature review ending with a synthesis and conclusion. Students are required to include the list of references cited in Part 1. This part will be due on **February 26th by 11:59pm** [via the Dropbox Feature in C-Tools].

1. *Evaluation Problem/Program Specification.*
  - a. Refine your group's social problem, a program and/or a service within an agency for evaluation.
  - b. Identify the specific *research question(s)* you plan to address in your evaluation proposal.
  - c. List the *goals and objectives* for the social problem, program and/or service.
  - d. Specify the *client and/or system conditions* that the problem, program and/or service you will attempt to address.
  - e. After you receive feedback from the professor, revise your current logic model to better reflect the problem, program and/or service that includes a clearer picture of the:
    1. Inputs/resources
    2. Activities you will undertake to address the problem, program or service.
    3. Short-term and long-term outcomes with a rationale for why these outcomes are expected to occur.
    4. Potential stakeholders in the evaluation and explain their involvement in the evaluation process.
  - ~ ~ *Attach your logic model to your part 1 submission --- not included in page count*
  - f. Include a thorough description of your logic model components in the text of part 1 (also, be sure to refer to your logic model in the text (i.e., "see Figure 1").

**(4-5 double-spaced word processed pages)**

2. *Literature Review, Synthesis, and Conclusion.*

Conduct a critical review of the empirical literature on the problem, program and/or service; attach the list of references used in writing this review. Include at least 7-10 references in this section.

**(3-4 double spaced word processed pages)**

NOTE: Feedback will be given on Part 1 and you will be encouraged to revise this section of the proposal, which you will resubmit with Part 2.

**(MAXIMUM number of text pages for Part 1 is 10-12; include the problem, literature review, and references.)**



**GUIDELINES FOR PART 2:  
“PRESENTATION OF THE EVALUATION PLAN”**

This part of the evaluation proposal focuses on the research design, analysis plan, references and abstract. Students are required to submit Part 2 of the proposal on **April 14th by 11:59pm** [via the Dropbox Feature in C-Tools]. ***For this final submission, students are expected to submit Part 1 and Part 2 as a single document.***

1. *Specific Research Design.*

- a. Identify the specific research design you will use to address the research question(s), goals and objectives in Part 1. That is, what specific design (e.g. survey research, quasi or true experimental design) you will use to evaluate the problem, program and/or service you have described in Part 1?
- b. If you are using a pre-, quasi- or true experimental design, draw a diagram of your design. Address how you will form the research groups you need to carry out the design of your evaluation, i.e., will you use random assignment to place participants in groups?
- c. Address the strengths and limitations of your design in answering the research question(s). That is, how are you able to address threats to internal validity (e.g., selection, maturation, dropout) using your design?

**(2-3 double spaced word processed pages)**

2. *Research Design: Sample, Selection of Participants, Recruitment & Retention.*

- a. What type of sample will you use?
- b. What inclusionary criteria will you use for selecting participants?
- c. How will you recruit, contact, and retain participants?
- d. How will you address problems of low participation and attrition?
- e. How will you protect the rights of participants such as ethical issues of informed consent, voluntary participation, protection of sensitive data, etc.

**(2-3 double spaced word processed pages)**

3. *Data Collection and Measurement.*

Identify and discuss the mode of data collection for your evaluation. Discuss the conceptualization and operationalization of the measure(s) you will use to analyze the problem/program/service. If you will use standardized measures, then discuss the populations/samples upon whom the measures were developed and standardized, including statistical information and documentation on reliability and validity of the measure(s).

NOTE: If you cannot find a standardized measure in the literature and decide to construct your own measure(s), you are required to provide examples of items in the measure(s) and explain how you will address reliability and validity issues of these new constructed measure(s).

**(1-2 double spaced word processed pages)**

4. *Analysis Plan.*

Your analysis plan should be linked to the evaluation research questions, goals and objectives of the problem, program and/or services as well as linked to the evaluation design including measurement. Students are expected to describe the appropriate statistical techniques for analyzing data on measures of sample characteristics and evaluation outcome measures. This description should include an explanation of the level of measurement for all measures. Alternatively, students may choose to summarize this analysis plan in a table that describes all measures (i.e., sample characteristics and outcome measures), their level of measurement and the appropriate statistical techniques for analyzing data on all measures.

**(Number of pages is 1-2 double spaced word processed pages)**

5. *Brief Conclusion.*

Your conclusion should integrate literature from the review and include any expected Implications for practice/policy/research.

6. *References.*

Include a minimum of 10, total. Be sure to use APA style as referenced in the *American Psychological Association Publication Manual* (5<sup>th</sup> edition). You are not required to purchase the manual; however, I do encourage you to access it and other writing resources online (e.g., <http://apastyle.apa.org/> and/or <http://grammar.ccc.commnet.edu/grammar/>).

7. *Abstract.*

Your abstract should be at the beginning of your submission and include a maximum of 250 words using this format: Purpose, Design and Methods, Expected Results, and Implications for Practice and Policy.

8. *Informed Consent Statement.*

Using the guidelines in your textbook, write a one page informed consent statement.

**(MAXIMUM number of text pages for Part 2 is 10-12; submit the logic model, informed consent statement, abstract, and any instruments with measures as an appendix)**

Final Presentations:

Students will present their evaluation proposal to the class during the last two class sessions. It is to be a professional presentation organized as if your team were presenting to the group funding the evaluation. As with the final written paper, it will incorporate all information from the previous assignments.

All assignments must be typed, double spaced, and, when appropriate, use appropriate referencing and bibliographic formats. The University Library web resources also has a brief guide to APA style: <http://www.lib.umich.edu/ugl/research/citationguide/APA5thed.pdf>

Papers should have page numbers and should be proofread prior to submission. The quality of the paper will be impacted by its visual presentation, and use of proper grammar and spelling.

At the conclusion of the presentations, students will be asked to evaluate the other members of their team. These evaluations will be submitted to the instructor and will count toward the final grade for each student.

Final program proposals are to be submitted via the C-Tools Dropbox feature on **April 14, 2010**.