# EDUC 622 - RESEARCH METHODS IN EDUCATION

Fall 2011 Academic Hall 211 Tuesdays 5:30-8:15 pm

#### Mission Statement of the College of Education, CSUSM

The mission of the College of Education Community is to collaboratively transform public education by preparing thoughtful educators and advancing professional practices. We are committed to diversity, educational equity, and social justice, exemplified through reflective teaching, life-long learning, innovative research and on-going service. Our practices demonstrate a commitment to student-centered education, diversity, collaboration, professionalism, and shared governance. (Adopted by COE Governance Community, October, 1997).

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## **Course Description**

This course is designed to introduce educational practitioners to the fields of educational research and evaluation. We will explore quantitative and qualitative methods of designing and conducting research in the context of educational settings. We will further examine measurement, assessment, common statistical techniques and methods for critiquing research and program evaluation studies. Students will write a research proposal, including the first three chapters, references and appendices. During the course, students will increase their: understanding of various research methodologies and statistical techniques, ability to critique educational research, knowledge of educational research, skills in planning research, and ability to summarize and interpret research.

#### Objectives

This course enables students to become effective, confident creators and consumers of research by providing a foundation of knowledge in the area of research methods that will enable them to read research and program evaluation reports with enough understanding to determine a study's merits. In addition, students will write a research proposal for a thesis or project that will fulfill the requirements for earning a Masters in Education. Therefore students will:

- Develop a working understanding of research methods and designs for educational settings;
- Enhance their practical understanding of both quantitative and qualitative research methods;
- Be able to analyze the strengths and limitations of educational research studies;
- Be able to determine the appropriate use of educational research in addressing student achievement issues in schools.
- Be able to refer to appropriate sources to find the answers to research and evaluation problems and produce a comprehensive review of the literature.
- Develop a working understanding of descriptive and inferential statistical techniques;
- Design a proposal for a research study; and
- Utilize correct APA style writing and citations.

#### **Course Requirements**

**Required Texts** Assigned texts and readings must be brought to all class sessions.

American Psychological Association. (2009). *Publication manual of the American Psychological Association*, 6<sup>th</sup> ed. Washington, DC: APA.

Mertler, C. A. and Charles, C. M. (2011). *Introduction to educational research.* 7<sup>th</sup> ed. Boston: Pearson Publishing.

\*Several other readings are required and will be available for download.

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To stay updated regarding educational issues that impact teaching, learning and leadership, you are urged to read current publications in the field, especially in your area of expertise. Some examples include: *Educational Leadership; The Journal of Special Education; Language Arts; Science and Children; Teaching Children Mathematics; Democracy & Education; Phi Delta Kappan; Teaching Tolerance;* and *Rethinking Schools.* 

# Assignments

All assignments are due on the dates indicated. Assignments *must* be submitted via Cougar Courses, double-spaced, and with standard margins, and adhere to style and formatting guidelines of APA 6<sup>th</sup> ed., as appropriate. It is expected that all assignments will reflect graduate-level expectations for composition and exposition. Use of electronic spelling and grammar checking is encouraged. The Writing Center is available for support (Kellogg Library 1103, 760-750-4168).

Weekly Homework and Class Participation (40 points). As graduate students, you are expected to take an active role in class and class activities. The quality of this course rests on the quality of YOUR participation. Toward this end, you are expected to attend every face-to-face class meeting; arrive fully prepared for classroom activity (i.e. homework is completed); and participate wholly in classroom and online dialogue—including peer review activity. Each reading assignment will require a corresponding response, intended to provide an opportunity for brief personal review, digestion, and self-assessment of the content. These will usually be completed online, one per chapter read. The online statistics content is included in this grade.

*Article Critique (20 points)*. Because your ability to find and use published literature is paramount to your understanding of research methods, you will be reading, summarizing, and interpreting a variety of published research studies. This practice will prepare you for the literature review portion of any research project and strengthen your critical analysis skills as a consumer of published research. For one article in particular, you will summarize and critique the research.

The critique is not a reaction to the article or the material in it. It is not an explanation of the material, nor an amplification of it. Nor is the critique an editorial, a defense of the material from your standpoint. The critique is (a.) a summary of the research methods and findings, and (b.) your evaluation of the article and how it is presented to you.

- Write a 4-5 page paper based on your summary and critique.
- Report the name of the journal, author(s), and title of the article in a terminating Reference list.
- The summary will include the research problem/questions; highlights of the literature review; name of the design methodology and key elements of the methods for data collection and data analysis; the findings of the research; and state the author's recommendations (e.g. why the findings are important to educators, how the findings can inform education, ...).
- After this summary, complete a thoughtful critique, focusing on what you believe to be the strengths *and* weaknesses of the research.

This article critique will also be assessed for your Graduate Writing Assessment Requirement (GWAR).

*Research Proposal (40 points).* To prepare you for future research, you will complete key components of a research proposal. These key components will include: Title Page, Table of Contents, Chapter 1: Statement of Problem *(outlined),* Chapter 2: Literature Review, Chapter 3: Methodology *(outlined),* References, and Appendices. Other than the outlined portions, the proposal must conform to the APA 6<sup>th</sup> edition style guide throughout.

For some students, this research proposal might lead directly to the Culminating Experience for their MA in Education. This proposal should be considered no more than a *draft* of the first three chapters your Masters thesis or project. It is strongly encouraged that upon completion of this draft, it is taken to your Chair for discussion and feedback. They will let you know when you are ready to submit your formal proposal.

The School of Education (SoE) provides a rubric as an optional guide for your writing of each chapter of your final research/project thesis. For this class, you are encouraged to read this rubric before you begin writing, and then revisit it as you make revisions to your chapters in order to help you self-assess. You

are also **strongly** encouraged to develop a peer-writing group to get feedback from others during your writing. Remember, *the key to good writing is rewriting*.

Specific details and requirements:

- Chapter One: Introduction & Statement of Problem. Chapter 1 is the Statement of the Problem of the Research Proposal and it should begin with a "Narrative hook" to introduce the topic. Expand that narrative to include the purpose statement and research question(s) following the guidance of Creswell (2012) on pages 64-75 & 122-135 [supplemental reading materials]. Chapter 1 should include the following components: background information, statement of the problem, purpose of study, rationale, research questions, significance of study, applications, limitations, definition of terms and a summary paragraph leading into the Literature Review. Your writing should "flow" and you should not necessarily label each component, although all components should be present. See the SoE Chapter 1 Thesis Rubric for more guidance.
- Chapter Two: Literature Review. The Literature Review is a critical and in depth evaluation of previous research; it serves not only as a summary and critique, but also **synthesis** of the research particular to your work.

Your review of literature should be organized around common themes that you found in your research articles, not organized simply as a sequence of individual articles. You should write about the articles within the subheadings of your common themes. You are writing one overview of all of the articles together, not each one separately. Remember to discuss common themes or threads that run through all or some of the papers; do not have one separate paragraph about each paper. If a paper included something unique and significant, you can certainly discuss it.

Follow correct guidelines for citation; be sure to give the authors credit if you take something directly from their paper. Use quotation marks and include the page number when you use an exact quote.

Ensure that the **all** of the reviewed articles were the reports of empirical research conducted by the author(s) (and that the majority of articles referenced in this chapter are primary sources). How do you know if it was empirical research? The authors will discuss the research question(s), how they collected and analyzed data, and the results, implications and conclusions.

The Literature Review should have an introduction that ties the review of literature to your research question. The body of the chapter should be organized by underlying themes or threads (subtopics) that your articles address. You should have a summary at the end that summarizes the review of literature and how it is linked to your research question, and which leads the reader into the *Methodology*. See the SoE Chapter 2 Thesis Rubric for more guidance.

• Chapter Three: Methodology. Your methodology chapter will consist of an introduction to the chapter, description of your methodological design, description of the research participants and setting, instruments and procedures for data collection, the methods for data analysis, and a summary. See the SoE Chapter 3 Thesis Rubric for more guidance.

#### Grading Standards

Grades will be based on the following grading scale:

| А | <br>90        | _ | 100% |
|---|---------------|---|------|
| В | <br>80        | _ | 89%  |
| С | <br>70        | _ | 79%  |
| D | <br>60        | _ | 69%  |
| F | <br>Below 60% |   |      |

The course is writing intensive, and success depends on keeping pace with course writing structures and due dates. As such, work submitted late, but within one week of the due date will be reduced by one letter grade. Work received over one week late will be recorded at half the graded value. *Note:* assignments are due whether or not you are present in class that day.

Each written assignment will be graded approximately 80% on content and context (detail, logic, synthesis of information, depth of analysis, etc.), and 20% on mechanics (grammar, syntax, spelling, format, uniformity of citation, etc.).

# **College of Education Attendance Policy**

Due to the dynamic and interactive nature of courses in the College of Education, all students are expected to attend all classes and participate actively. At a minimum, students must attend more than 80% of class time, or s/he may not receive a passing grade for the course at the discretion of the instructor. *Individual instructors may adopt more stringent attendance requirements*. Should the student have extenuating circumstances, s/he should contact the instructor as soon as possible. *(Adopted by the COE Governance Community, December, 1997).* 

*Course-Specific Participation and Attendance Policy:* This course approaches content in a variety of ways. Structured interactions, group processes, oral presentations, guided discussion of readings, and peer review exercises are the norm. Students are expected to have read assigned materials by the date indicated in the syllabus, and should come prepared to discuss readings individually or in variously structured groups. The degree of your engagement in these processes forms the basis for points assigned in the *participation* category.

Due to the fast paced and highly interactive nature of the course, regular attendance and full participation are expected; teaching and learning is difficult (if not impossible) if one is not present for and engaged in the process. Therefore, the above COE Attendance Policy is amplified as follows:

- Missing more than two class meetings will result in one letter-grade reduction from your final course grade; in other words, -10 points from your total count. A third absence will result in failure of the course, per COE policy.
- Arriving late or leaving early on two occasions will be considered the equivalent of one absence.
- Up to 5 points may be recovered by a make-up assignment. The instructor will craft an assignment relevant to the missed day. Expect the task to be at minimum equivalent in time commitment to the missed session (3 hours).

Inform the instructor *prior* to an absence. Notification of absence does not warrant an excuse.

# Course Load

In all master course work, it is expected that for every one hour of contact time, you will complete at minimum one to two hours of work outside of class. Please plan accordingly.

#### Graduate Writing Requirements

The California State University maintains a Graduation Writing Assessment Requirement (GWAR) for master's students, to be completed before Advancement to Candidacy can be approved. A student may satisfy the graduate writing requirement in one of two ways: an acceptable standardized test score, or a paper that receives a passing score as described in the GWAR rubric. Toward the goal of providing opportunity for graduate students in the College of Education to satisfy the writing requirement, all papers in all graduate classes must adhere to the rules of style (for writing and format style) detailed in the *Publication Manual of the American Psychological Association, 6th ed.* (2009). This is a required textbook for all CSUSM SoE graduate courses.

#### Course-Specific Graduate Writing Assessment Requirement (GWAR)

In the College of Education at CSUSM, students complete the Graduate Writing Assessment Requirement (GWAR) through the submission of the *Article Critique* in EDUC 622. The student's writing in this assignment must demonstrate graduate level skills in (1) style and format, (2) mechanics, (3) content and organization, and (4) integration and critical analysis. The paper will be scored using a 4point rubric in each of the aforementioned four areas. The minimal acceptable combined score from all of the four sections is 10 points, with no scores of "1" on any section, resulting in a minimum of a 2.5 average for all sections. The GWAR Rubric-based assessment of this paper will not directly impact your course grade; however you cannot be advanced to candidacy for your MA without arranging with the SoE to resubmit an equivalent writing sample. The GWAR Rubric is attached to this syllabus.

# Students with Disabilities Requiring Reasonable Accommodations

Students with disabilities who require reasonable accommodations must be approved for services by providing appropriate and recent documentation to the Office of Disable Student Services (DSS). This office is located in Craven Hall 4300, and can be contacted by phone at (760) 750-4905, or TTY (760) 750-4909. Students authorized by DSS to receive reasonable accommodations should meet with their instructor during office hours or, in order to ensure confidentiality, in a more private setting.

## CSUSM Academic Honesty Policy

"Students will be expected to adhere to standards of academic honesty and integrity, as outlined in the Student Academic Honesty Policy. All written work and oral presentation assignments must be original work. All ideas/materials that are borrowed from other sources must have appropriate references to the original sources. Any quoted material should give credit to the source and be punctuated with quotation marks.

Students are responsible for honest completion of their work including examinations. There will be no tolerance for infractions. If you believe there has been an infraction by someone in the class, please bring it to the instructor's attention. The instructor reserves the right to discipline any student for academic dishonesty in accordance with the general rules and regulations of the university. Disciplinary action may include the lowering of grades and/or the assignment of a failing grade for an exam, assignment, or the class as a whole."

Incidents of Academic Dishonesty will be reported to the Dean of Students. Sanctions at the University level may include suspension or expulsion from the University.

*Plagiarism:* As an educator, it is expected that each student will do his/her own work, and contribute equally to group projects and processes. Plagiarism or cheating is unacceptable under any circumstances. If you are in doubt about whether your work is paraphrased or plagiarized see the Plagiarism Prevention for Students website http://library.csusm.edu/plagiarism/index.html. When relying on supporting documents authored by others, cite them clearly and completely using American Psychological Association (APA) manual, 6<sup>th</sup> edition. Failure to do so may result in failure of the course. If there are questions about academic honesty, please consult the University catalog.

#### **Electronic Communication Protocol**

Electronic correspondence is a part of your professional interactions. If you need to contact the instructor, e-mail is often the easiest way to do so. It is my intention to respond to all received e-mails in a timely manner.

Please be reminded that e-mail and on-line discussions are a very specific form of communication, with their own nuances and etiquette. For instance, electronic messages sent in all upper case (or lower case) letters, major typos, or slang, often communicate more than the sender originally intended. With that said, please be mindful of all e-mail and on-line discussion messages you send to your colleagues, to faculty members in the College of Education, or to persons within the greater educational community. All electronic messages should be crafted with professionalism and care.

Things to consider:

- Would I say in person what this electronic message specifically says?
- How could this message be misconstrued?
- Does this message represent my most professional and courteous self?
- Am I sending this electronic message to avoid a face-to-face conversation?
- · Can this message be more concisely and/or precisely stated?

In addition, if there is ever a concern with an electronic message sent to you, please talk with the author in person in order to correct any confusion. For more guidance see Core Rules of Netiquette at http://www.albion.com/netiquette/corerules.html.

# EDUC 622 Fall 2011 Lawler – Schedule

| Date   | Торіс  | Assignment to be completed<br>BEFORE Class Session  |
|--|--|---|
| Week 1<br>30 Aug 2011                                  | <ul> <li>Welcome; Introduction to Educational Research &amp; APA Style</li> <li>Syllabus</li> <li>Introduction to Educational Research</li> <li>Introduction to APA</li> </ul>   | Skim APA Manual                                     |
| Week 2<br>6 Sep 2011                                   | <ul><li>Selecting a Research Topic</li><li>Introduction to locating empirical studies</li></ul>  | Read Serving ELLs<br>Read & Respond: M&C Ch 1, 2    |
| Week 3<br>13 Sep 2011<br>online                        | <ul> <li>Locating Published Research</li> <li>Introduction to CSUSM Library &amp; research resources</li> <li>Collect research articles (primary sources)</li> </ul>   | RR: M&C Ch 3, 4                                     |
| Week 4<br>20 Sep 2011                                  | Interpreting and Summarizing Research <ul> <li>Peer Writing Group – Article Critique</li> </ul>  | RR M&C Ch 5, 6<br>Annotated Bib. (APA Ch 7, p. 220) |
| Week 5<br>27 Sep 2011                                  | <ul><li>Methods for Data Collection and Data Analysis</li><li>Workshop: Ch. 1 Introduction</li></ul>   | RR M&C Ch 7<br>RR APA Ch. 2-3                       |
| Week 6<br>4 Oct 2011                                   | <ul> <li>Proposing and Reporting Research</li> <li>Workshop: Ch. 2 Literature Review (if time permits)</li> </ul>  | RR M&C Ch 8, 9<br>Article Critique due              |
| Week 7<br>11 Oct 2011<br>online                        | Work Time for Literature Review  | RR APA (pp. TBD)                                    |
| Week 8<br>18 Oct 2011                                  | <ul> <li>Procedures and Exemplars in Qualitative Research Methodologies,<br/>Quantitative Research Methodologies, &amp; Mixed-Methods Research<br/>Methodologies</li> <li>Introduction to techniques for quantitative data analysis, in particular the<br/>use of Excel</li> <li>Introduction to techniques for qualitative data collection, in particular the<br/>use of Survey Monkey</li> <li>Introduction to techniques for qualitative data analysis</li> </ul> | RR M&C Ch 10, 12, 14<br>Introduction Outline due    |
| Week 9<br>25 Oct 2011                                  | <ul> <li>Survey Research &amp; Quantitative Data Analysis</li> <li>Techniques for quantitative data analysis, σ</li> <li>Workshop: Ch. 2 Literature Review</li> </ul>  | RR M&C Ch 11, 13                                    |
| Week 10<br><mark>3 Nov 2011</mark><br><u>5:00-6:30</u> | Research Ethics and Human Subjects Protection & Orientation to IRB<br>Process  | CITI training<br>Lit Review Outline due             |
| Week 11<br>8 Nov 2011                                  | <ul> <li>Evaluation &amp; Action Research Methodologies &amp; Quantitative Data Analysis</li> <li>Techniques for quantitative data analysis, using Excel</li> </ul>  | RR M&C Ch 15, 16<br>Statistics Module 1             |
| Week 12<br>15 Nov 2011                                 | Quantitative Data Analysis• Techniques for quantitative data analysis, $\chi^2$ • Workshop: Ch. 2 Literature Review  | RR Case Study<br>Statistics Module 2, 3             |
| Week 13<br>22 Nov 2011                                 | Review Methods for Data Collection & Data Analysis <ul> <li>Workshop: Ch. 3 Methodology</li> </ul>   | Statistics Module 9<br><i>Lit Review due</i>        |
| Week 14<br>29 Nov 2011                                 | Course Summary; & Next Steps toward MA   | Statistics Module 10<br>Research Proposal due       |
| Week 15<br>6 Dec 2011<br>no class                      | Dr. Lawler is available for appointments to follow up on research proposal, as interested  |   |

Although this schedule and syllabus have been carefully planned, either may require modification in response to class needs and interests.

#### **Graduate Writing Assessment Requirement**

The Graduate Studies: Graduation Writing Assessment Requirement (GWAR) outlines the procedures for assessing master's student writing proficiency and the criteria for each CSUSM master's program to determine that a master's student has met the GWAR.

The writing requirement must be completed before a graduate student advances to candidacy. A student may satisfy the graduate writing requirement in one of two ways: an acceptable standardized test score, or a paper(s) that receive(s) a passing score as described below.

The paper(s) will be scored using a rubric (1 - 4) in each of four areas: "I. Style and Format", "II. Mechanics", "III. Content and Organization", and "IV. Integration and Critical Analysis". The minimal acceptable combined score from all of the four (I-IV) sections is 10 points, with no scores of "1" on any section, resulting in a minimum of a 2.5 average for all sections.

Find the full policy at http://www.csusm.edu/policies/active/documents/graduate\_writing\_assessment\_requirement.html

|                     | 4   | 3  | 2  | 1   |
|---------------------|---|--|--|---|
| I. Style and Format | In addition to meeting the requirement<br>for a "3," the paper consistently models<br>the language and conventions used in<br>the scholarly/professional literature<br>appropriate to the student's discipline.<br>The manuscript would meet the<br>guidelines for submission for publication<br>in a peer-reviewed journal in the<br>student's field of study. | While there may be minor errors,<br>conventions for style and format are<br>used consistently throughout the<br>paper. Demonstrates thoroughness<br>and competence in documenting<br>sources; the reader would have little<br>difficulty referring back to cited<br>sources. Style and format contribute<br>to the comprehensibility of the paper.<br>Suitably models the discipline's<br>overall scholarly style. | The style and format are broadly<br>followed, but inconsistencies are<br>apparent. There is selection of less<br>suitable sources (non-peer reviewed<br>literature, web information). Weak<br>transitions and apparent logic gaps<br>occur between topics being<br>addressed. The style may be difficult<br>to follow so as to detract from the<br>comprehensibility of the manuscript.  | While some discipline-specific<br>conventions are followed, others are<br>not. Paper lacks consistency of style<br>and/or format. It may be unclear<br>which references are direct quotes<br>and which are paraphrased. Based<br>on the information provided, the<br>reader would have some difficulty<br>referring back to cited sources.<br>Significant revisions would<br>contribute to the comprehensibility<br>of the paper. |
| II. Mechanics       | In addition to meeting the requirements<br>for a "3," the paper is essentially error-<br>free in terms of mechanics. Writing flows<br>smoothly from one idea to another.<br>Transitions effectively establish a sound<br>scholarly argument and aid the reader in<br>following the writer's logic.  | While there may be minor errors, the<br>paper follows normal conventions of<br>spelling and grammar throughout.<br>Errors do not significantly interfere<br>with topic comprehensibility.<br>Transitions and organizational<br>structures, such as subheadings, are<br>effectively used which help the<br>reader move from one point to<br>another.  | Grammatical conventions are<br>generally used, but inconsistency<br>and/or errors in their use result in<br>weak, but still apparent, connections<br>between topics in the formulation of<br>the argument. There is poor or<br>improper use of headings and<br>related features to keep the reader<br>on track within the topic. Effective<br>discipline-specific vocabulary is<br>used. | Frequent errors in spelling, grammar<br>(such as subject/verb agreements<br>and tense), sentence structure,<br>and/or other writing conventions<br>make reading difficult and interfere<br>with comprehensibility. There is<br>some confusion in the proper use of<br>discipline-specific terms. Writing<br>does not flow smoothly from point to<br>point; appropriate transitions are<br>lacking.                                |

#### Rubric Used to Evaluate Student Submissions to Satisfy the GWAR

|                                       | 4   | 3  | 2  | 1   |
|---------------------------------------|---|--|--|---|
| III. Content and Organization         | In addition to meeting the requirements<br>for a "3," excels in the organization and<br>representation of ideas related to the<br>topic. Raises important issues or ideas<br>that may not have been represented in<br>the literature cited. Would serve as a<br>good basis for further research on the<br>topic.  | Follows all requirements for the<br>paper. Topic is carefully focused.<br>Clearly outlines the major points<br>related to the topic; ideas are<br>logically arranged to present a sound<br>scholarly argument. Paper is<br>interesting and holds the reader's<br>attention. Does a credible job<br>summarizing related literature.<br>General ideas are expanded upon in<br>a logical manner thereby extending<br>the significance of the work<br>presented beyond a re-statement of<br>known ideas. | Ideas presented closely follow<br>conventional concepts with little<br>expansion and development of new<br>directions. Certain logical<br>connections or inclusion of specific<br>topics related to the student's area<br>of study may be omitted. Ideas and<br>concepts are generally satisfactorily<br>presented although lapses in logic<br>and organization are apparent. The<br>reader is suitably introduced to the<br>topic being presented such that the<br>relationship to the student's area of<br>study is obvious. | The paper is logically and<br>thematically coherent, but is lacking<br>in substantial ways. The content<br>may be poorly focused or the<br>scholarly argument weak or poorly<br>conceived. Major ideas related to<br>the content may be ignored or<br>inadequately explored. Overall, the<br>content and organization needs<br>significant revision to represent a<br>critical analysis of the topic. |
| IV. Integration and Critical Analysis | In addition to meeting the requirement of<br>a "3," the document presents the current<br>state of knowledge for the topic being<br>addressed utilizing a diversity of<br>opinions. These various, and possibly<br>conflicting, opinions are presented in a<br>balanced manner and seamlessly<br>woven together to illustrate a complete<br>grasp of the literature across multiple<br>research approaches utilizing<br>appropriate national and international<br>peer-reviewed journals. Essential<br>findings of multiple sources are<br>accurately and concisely paraphrased,<br>analyzed, and integrated. Original<br>sources are clearly identified and<br>correctly cited in both the body of the<br>text and the reference section.<br>Organizationally, smooth and effective<br>transitions between topics lead the<br>reader through an orderly discussion of<br>the topic being addressed. The gaps in<br>current knowledge are clearly identified<br>and significant directions and<br>approaches that fill these gaps are<br>identified. | There are inconsistencies in the<br>organization and logic of the<br>presentation, but still clear analysis<br>of the presented materials. While<br>synthesis of all aspects of the topic<br>may show varying degrees of<br>development, the overall<br>consistency, thoroughness, and<br>analysis result in a well-crafted<br>document.   | Identification of key topics or<br>uncertainties in the field may be<br>incomplete. New concepts resulting<br>from a synthetic presentation of<br>ideas is poorly developed or lacking.<br>Complex topics and related<br>concepts are awkwardly presented<br>and linkages among topics may be<br>unclear.  | Weakness is evident in the<br>coverage of the field and analysis<br>resulting in incorrect or poorly<br>developed synthesis of results.<br>Analysis is limited to categorizing<br>and summarizing topics. The<br>resulting manuscript degrades the<br>comprehensibility of the document<br>and the identification of knowledge<br>gaps.   |