



KEMPE INTERDISCIPLINARY SUMMER RESEARCH INSTITUTE

COURSE 1: FUNDAMENTALS OF CLINICAL AND EPIDEMIOLOGICAL RESEARCH — A COURSE FOR CHILD ABUSE PROFESSIONALS NEW TO RESEARCH

Course director: Desmond K. Runyan, MD, DrPH, Professor of Pediatrics, U of Colorado School of Medicine and Professor of Epidemiology, Colorado School of Public Health

Overview:

This intensive course is designed for trained clinicians (e.g., pediatric fellows in child abuse) who are interested in learning basic research skills to enable them to develop research on child maltreatment.

The class will meet for 15 contact hours over a 5 day period and include the following topics. Each participant will be expected to conduct an in-depth literature review on a topic of interest and outline the design of a study to examine that topic.

Preference will be given to child abuse pediatrics fellows. Other clinicians will be admitted by permission of instructor only.

Mentoring: In addition to didactic sessions, this course will include intensive mentorship with a senior researcher with experience in child abuse research. Attendees will meet at several points with their mentor to develop the foundations of a research project focused on child maltreatment, and will have the opportunity to continue ongoing consultation with the mentor during and after course completion.

Course learning objectives: As a result of this course, participants will be able to:

1. Define the key requirements for a focused research question and a feasible project.
2. Differentiate key principles in employing selected research designs (RCT, case control, cohort, cross sectional, clinical case series), including:
 1. describing appropriate uses of each design;
 2. identifying threats to validity associated with research designs; defining approaches to addressing limitations of the design; and
 3. describing basic statistical approaches appropriate to each study design.
3. Articulate at least two research questions and begin to explore methods to answer these questions.
4. Initiate a detailed literature review that critically examines the literature related to their topic, identifying strengths and weaknesses of existing research.
5. Identify selected data sources (original or secondary data) to answer the research question.

Course Format

Instruction in this course incorporates formal presentations/lectures, intensive in-class discussion and out-of-class assignments. Selected readings and other assignments will be completed for each class. Students MUST remain current in their readings and other assignments throughout the course and provide information necessary for the review of their applications. They will be called on to contribute to the discussion of those readings and assignments. Attendance at all sessions is expected.

Evaluation and Grading

Evaluation will be based on the quality of student's participation in the classroom discussions, the quality of the written assignments, and the critiques presented to other students.

The final course grades are assigned as follows:

1. **Class participation**

45%

Students are expected to give substantive feedback to each other each time an assignment is submitted. This means comments on logic, theory, methods and flow, and clarity of writing -- not just catching typos and making minor editorial points, though those are helpful, too. We expect materials to be posted on time. Grading will take into consideration:

- *Attendance (expected at all sessions)*
- *Submission of all assignments*
- *Quality of participation in class discussions (substantial and substantive in content) --*

Note: we value quality over quantity

2. **Daily Written Assignments**

55%

At the end of each of the first 4 days, participants will be provided a written instruction regarding a written assignment to consist of a one or two page response to the content of the day's activities. Faculty will grade these sections based on the following criteria:

- Clarity and appropriateness of cited literature
- Clarity and logic of the response
- Degree to which the significance of the issue identified in the response is recognized by the author

Process: Students will provide their written assignments by the date and time specified in the syllabus below.

Grading rubrics:

Written work:

Points	Grade	Description of criteria, short papers
90-100	A or A-	All elements present, clearly explained, original ideas, significant and thoughtful questions that demonstrate understanding of issues in readings (quality of ideas and questions differentiates A from A-).

80-89	B-,B, B+	All elements present, explanation clear but lacking originality or careful thought, moderately interesting questions that demonstrate understanding of issues in the readings (quality of ideas and questions differentiates B-, B, B+).
70-79	C-, C, C+	All elements present, limited clarity in thinking or expression, weak questions that demonstrate less than full understanding of issues in the readings (quality of ideas and questions differentiates C-, C, C+).
60-69	D-,D, D+	Elements missing, lack of clarity in thinking or expression, weak questions that do not demonstrate understanding of issues in the readings (quality of ideas and questions differentiates D-, D, D+).
<60	F	No paper turned in on time

Discussion:

Points	Grade	
90-100	A or A-	Attends all classes and actively and respectfully listens to peers & instructor; helps move discussion forward, actively participates in appropriate ways and times with comments that are insightful and demonstrate understanding of key issues and readings.
80-89	B-,B, B+	Attends all classes and actively and respectfully listens to peers & instructor; helps move discussion forward, actively participates in appropriate ways and times with comments that demonstrate basic understanding of material but may be less insightful than those deemed worthy of an A or A-
70-79	C-, C, C+	Attends most or all classes, moderately prepared, listens to peers and instructor, but contributes little to move the conversation forward or demonstrate clear understanding of the material through insightful questions or points in discussion.
60-69	D-,D, D+	Attends most but not all classes, but may not actively participate, arrives with less than adequate preparation by demonstration of knowledge of content and participation in discussion. May participate little and/or contribute comments that do not advance the discussion.
<60	F	Misses a large number of classes or is not fully present during discussion (e.g., distracted by phone or email); projects little interest in the material or discussion of peers or instructor, comments reflect little understanding of the material and contribute little to the discussion, seldom participates in meaningful ways.