**Course Number:** SOWO 940  
**Course Title:** Development of Social Intervention Models  
**Instructor:** Mark W. Fraser - 962-6538; Room 548J, mfraser@email.unc.edu

**Office Hours:** Tuesday 8-9 (Call to schedule appointment…other times available)

**Course Description:** The purpose of this course is to prepare advanced graduate students to design and evaluate interventions that address social needs, problems, and conditions.

**Course Objectives:** Students completing this course will be able to:

1. Identify and assess the socio-political dynamics involved in defining a specific social need, problem, or condition at the societal and institutional, organizational, familial and interpersonal, and individual levels;

2. Analyze a social need, problem, or condition relevant to a particular population and identify the implications of different levels and kinds of analysis for designing appropriate interventions;

3. Assess the theoretical and empirical support for alternative interventions that address a selected need, problem, or condition with a particular population;

4. Describe and critically assess a logical sequence of development that guides the design, implementation, and evaluation of social interventions;

5. Apply a systematic approach to designing a social intervention that is responsive to a selected social need, problem, or condition of a particular population;

6. Select and apply appropriate research methodology in evaluating a social intervention;

7. Demonstrate awareness of the interplay of different levels of intervention and moderators such as age, class, culture, disability status, ethnicity, gender, language, race, religion, and sexual preference in designing, implementing, and evaluating a social intervention;

8. Generate hypotheses for guiding empirical inquiry for testing social interventions;

9. Apply theory construction strategies and techniques for building social interventions;

10. Delineate effective strategies for collaboration between academic and practice communities in designing, implementing, and evaluating social interventions.
Course Expectations:

This course is structured as a seminar. In our discussions, we will examine and critique the assigned readings, provide consultation to one another, and respond to presentations by seminar participants and guest presenters. All members of the class are expected to be prepared for class and contribute to the discussion. If you find you will not be able to be in class, you should notify the instructor.

Students are expected to complete assigned and independent readings, contribute to the development of a positive learning environment in the seminar, and demonstrate their learning through written assignments and seminar participation. Required readings are identified on the proposed schedule. Students are expected to conduct substantial independent readings, and this reading should be reflected and cited in papers and assignments. Emphasis should be placed on peer-reviewed journals.

Written assignments must be submitted when due, and they should be prepared in accordance with APA guidelines, the format required by many leading journals in Social Work and related fields. Because written assignments are the basis for scheduled class presentations, late submission will be penalized 5 points for a major assignment and .5 point for a mini-assignment. Pay special attention to pp. 31-214 of the Publication Manual (5th ed.) of the American Psychological Association (2001). APA style writing is expected and will be considered in evaluating papers.

Required Readings:

All required articles are available electronically through the UNC Library system. The principle text is available for purchase at the Health Affairs Bookstore:


Assignments:

There will be no mid-term examination or final examination. Instead, the course will be organized around the development of a NIH proposal. A series of mini-assignments is designed to prepare you to write your proposal. The focus of all assignments is on mastery of the process of designing social interventions and evaluating their effectiveness. Assignments are described below and numbered in the Course Outline.

1. Pre-Proposal: Presentation of Working Draft for a Social Intervention Research Project. Using appropriate media (e.g., handouts and .ppt slides), students will prepare and
present a written proposal for the development of an intervention research project focused on a social need, problem, or condition. Handouts should include a bibliography of literature related to a selected social need, problem, or condition and a preliminary conceptual model used to address the selected area. See description in Course Outline. Due March 18.

2. **Seminar Leadership.** Each seminar participant will be expected to take a special leadership role for one session. This will involve preparation for and conduct of a class session related to evaluation design in intervention research. Plans for the session will be developed in consultation with the instructor. Seminar leadership will include:

   - Selecting and presenting appropriate conceptual material from assigned, supplementary, and independent readings;
   - Preparing questions to focus discussion;
   - Involving the class in the application of concepts;
   - Facilitating discussion; and
   - Preparing a List of References and other materials.

3. **Intervention Research Proposal: Paper Proposing to Develop and Evaluate a Social Intervention.** Each student will prepare and present a PHS proposal to develop an intervention to address a need, problem, or condition within a particular population. The ideal proposal will focus on developing F30, F31 (Ruth L. Kirschstein National Research Service Awards), R03, or other support for dissertation or post-doctoral research. Due on April 22, proposals should include:

   - **Specific Aims** – a statement of and justification for the intervention; explicitly state 2-3 aims and hypotheses (if any)
   - **Background and Significance** – a critical, integrative review of key literature related to etiology and intervention; should explain why the proposed research is important to the advancement of etiological or interventive knowledge; describe the national significance; (as appropriate) use incidence and prevalence information; link the Specific Aims or Significance to Healthy People 2010 (see [http://www.healthypeople.gov/](http://www.healthypeople.gov/)), if an NIH proposal; conceptualize study as a building block of a series of studies
   - **Preliminary Studies** – a summary of pilot data that have been collected by the principal investigator or the proposed research team; emphasize the strength of the PI and others on the project
   - **Design and Methods** – a description of the intervention and a research plan; explain how you are going to do the study
     1. Description of the intervention (based the expansion, refinement, or synthesis of existing models; append a preliminary 10-page intervention manual or protocol);
     2. Description of Research Methods – a research plan for developing the intervention, including at least two phases of development and a description of the research designs to be use in each phase; [Tips:
Descriptions of research designs usually include the plan for recruiting/sampling participants, method of group assignment (if applicable), means for measuring outcomes and covariates (i.e., data collection methods, times, and measures), and methods of analysis. You should propose activities that have high practical value for your dissertation. Consider effect sizes, intracluster correlations, and measurement precision in estimating reasonable sample sizes. Estimate a Minimal Detectable Effect (MDE). Consider also the issues of causal inference and control. Be sure to link your intervention model to the measurement model.; and

iii. Identification of implementation and research issues, including limitations.

Note: To guide your work you might try using the NIDA Research Assistant tutorial (http://www.theresearchassistant.com/tutorial/4.asp) or you might seek background help at the NIH Grant Submission portal (www.grants.gov). Note. CDFA is Catalog of Domestic Federal Assistance; FON is Funding Opportunity Number.

**Evaluation:**

Points may be earned for a variety of assignments and for participation in the seminar.

- 20 points – Seminar Participation and Completion of Minor Assignments
  - 10 points – Classroom Participation and Preparedness
  - 10 points – Mini-Assignments
    - 1. The Need or Problem (2 points)
    - 2. Identifying the Core Concepts or Constructs (2 points)
    - 3. Drawing a Conceptual Model (2 points)
    - 4. Presenting (and Critically Analyzing) a Social Intervention (2 points)
    - 5. Specifying Program Components (2 points)
- 15 points – Pre-Proposal: Presentation of Working Draft
- 20 points – Seminar Leadership Project
- 45 points – Intervention Research Proposal:
  - 5 points – Oral Presentation
  - 15 points – Intervention Protocol (written)
  - 25 points – Proposal (written)
- 100 points – Total

**Grading System:**

- High Pass = 94-100
- Pass = 80-93
- Low Pass = 70-79
- Fail = 69 and below

**Honor Code and Tips on Citing References:**
Original work is expected. Submitted work must conform to the Honor Code of the University of North Carolina. For information on the UNC-CH Honor Code, including guidance on representing the words, thoughts, and ideas of others, see: http://honor.unc.edu/ Please note that plagiarism is defined in the Instrument of Student Judicial Governance, Section II.B.1 as, “…the deliberate or reckless representation of another's words, thoughts, or ideas as one's own without attribution in connection with submission of academic work, whether graded or otherwise.” In keeping with the UNC Honor Code, if reason exists to believe that academic dishonesty has occurred, a referral will be made to the Office of the Student Attorney General for investigation and further action as required. Violations of the Honor Code result in an “F” grade. From Honor Code website, here are some helpful guidelines for when and how to cite the ideas and work of others:

*Quotations:* When directly quoting an outside source, the borrowed text must be surrounded by quotation marks or, if the quoted material is more than 40 words in length, it must be block quoted. See the Publication Manual of the American Psychological Association (2001, p. 118). Every quote must include a source – the author, year, and page number. The source must appear in the reference section at the end of your paper.

Here is an example of alternative ways to cite the same material:

*Original Text (more than 40 words in block quote):*

Unks (2007) found the following:

> Our best teachers do not convey information by filling heads or stretching minds with some sort of illusionary basic subjects; they impart instead a way of looking, a way of perceiving, a way of investigating the wonder of life in such a way that students learn how and what to see. (p. 42)

*Internal Reference (less than 40 words):*

Unks (2007) argued that "our best teachers…impart instead a way of looking, a way of perceiving, a way of investigating the wonder of life in such a way that students learn how and what to see" (p. 42). OR

In an eloquent argument, Unks (2007, p. 42) claimed, "Our best teachers…impart instead a way of looking, a way of perceiving, a way of investigating the wonder of life in such a way that students learn how and what to see."

*Paraphrase:*

Responding to Barth (2006), Unks (2007) argued that the best teachers show students a way to perceive the wonder of life.
Code of Honor Affirmation. All written products in the course must have a signed Honor Code statement. Papers without this affirmation will not be accepted. The statement should read as follows:

_I have neither given nor received any unauthorized assistance on this assignment._

(Your Signature)

Policy on Accommodations for Students with Disabilities:

Students with disabilities that affect their participation in the course may notify the instructor if they wish to have special accommodations in instructional or evaluation format considered. Accommodations and services, which may include – but are not limited to – note-takers, alternative testing, accessible class materials, and interpreters, are provided by Disability Services (Voice/TDD 962-8300; 966-4041). Learning Disability Services (962-7227) provides supportive services for students with learning disabilities and attention-deficit/hyperactivity disorders. Students will be asked to provide documentation of disabling or medical conditions from an appropriate primary care provider. Working with Disability Services and Learning Disability Services and without lowering academic standards, the instructor will make reasonable accommodations to reduce barriers caused by a student’s disability.

Course Website:

The course description, lecture notes, and other course materials are available online through the Blackboard website. See [http://blackboard.unc.edu](http://blackboard.unc.edu)
Course Outline

January 14  Class #1: Introduction and Course Overview

- Cause, effect, and causal relationships
- Causal description versus causal explanation
- Terminology
  - Experiment
  - Randomized experiment
  - Quasi-experiment
  - Natural experiment
  - Correlational study
- What is an intervention?
- What is intervention research?
- Evidence-based practice, public policy, and science
- Developing and testing interventions
  - From epidemiology to dissemination
  - Efficacy versus effectiveness trials
  - Role of qualitative research: The Robbers Cave Experiment
- Review course syllabus

Required Reading (after class):


Source:


Discussion:

- Discuss intervention interests
- How is your expected dissertation related to an intervention?
- Consider: Does Tuchman et al. make a persuasive argument? Could it be a dissertation?

Assignment:

Browse funding sources at NIH. Try the Search protocol at: http://grants.nih.gov/grants/guide/
January 21  

Class #2: Overview of Types of Validity – The Generalization of Causal Connections

- Assessing the validity of causal inferences
- A typology of validity
  - Statistical conclusion validity
  - Internal validity
  - Construct validity
  - External validity

Required Reading:

Shadish, Cook, & Campbell, 2002, pp. 1-63

Mini-Assignment #1 – The Need or Problem: Pick a need, problem, or condition to address throughout the semester. Prepare a brief written statement (~2 pages) of your central social concern and intervention interest to distribute to class. In your statement, address the following questions:

1. What is the need, problem, or condition? What is its prevalence? How has the prevalence changed over time? Use primary data sources (e.g., CDC Youth Risk Behavior Surveillance or U.S. Census Bureau data). Do not (ever) rely on secondary sources, such as newsletters or advocacy websites.
2. What empirical and theoretical literature should you review? Key words?
3. What kinds of interventions might be needed and feasible at each level (e.g., individual, family, organizational, county or court jurisdiction, state, nation)?
4. What level of intervention is of interest to you at this point?
5. What research methodologies (design, measures, and analysis) are you considering? Are there reviews of measures in your field (see, e.g., Dawe, Loxton, Hides, Kavanagh, & Mattick, 2002)?

January 28  

Class #3: Statistical Conclusion and Internal Validity

- How to assess the strength of causal inferences
  - Statistical conclusion validity
  - Internal validity
- Concept: The best available evidence

Required Reading:
Mini-Assignment #2 – Identify the Core Constructs: Develop a list of constructs (i.e., units, settings, treatments, and outcomes) you might use to organize your literature review. Be prepared to share your list in class. As part of the process of building an intervention, begin a bibliography on your area including theoretical, empirical, and practice literature that defines the etiology, interventive opportunities (i.e., levels of potential intervention – individual, family, organizational, policy), and the interventions that have addressed this area in the past. To address the social need, problem, or condition, are multiple interventions needed? Which ones appear promising? Can they be combined or sequenced along some continuum (e.g., developmental age, setting, or risk status)? Submit your list and preliminary bibliography. Use asterisks to indicate those interventions that you intend to review.

TIP: Begin this week to search for a Program Announcement (PA), Request for Proposals (RFP), or Request for Applications (RFA) from the National Institutes for Health (NIH), the Centers for Disease Control (CDC), National Institute for Justice (NIJ), Institute for Education Science (IES), or other funding agency. It is important to find a gap in the current funding portfolios of agencies. So your search should begin with an assessment of what is currently funded, for an agency is unlikely to award funding for a new project if it is currently funding a similar project. To review abstracts of existing biomedical research projects, use the Computer Retrieval of Information on Scientific Projects (CRISP) database at: http://crisp.cit.nih.gov/ To review NIH funding mechanisms, see: http://grants.nih.gov/grants/guide/index.html

February 4 Class #4: Construct and External Validity

- Threats to construct validity
- Threats to external validity
- Implications for assessing the “best available” evidence

Required Reading:

Shadish, Cook, & Campbell, 2002, pp. 64-102


Optional Reading:

**Discussion**: Describe the strength of the literature in your area based on statistical conclusion validity, internal validity, construct validity, and external validity.

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**February 11**

**Class #5: Developing Conceptual Frameworks for Interventions – Specifying Mediation Models and Theories of Change**

**Guest (1:00-3:00 PM)**: Rebecca Macy, Associate Professor

**Guest Speaker’s Topic**: Cultivating a Theory- and Evidence-Based Conceptual Framework: Recognizing Serendipity

- How do we represent interventions in structural models?
- Specifying mediation in developmental and conceptual models
- Specifying mediation using proximal and distal outcomes
- Are mediation, confounding, and suppression effects all the same thing?
- How are theories of change specified in models?

**Example**: The Biopsychosocial Model of Conduct Problems in Adolescence – Integrating Individual, Family, Peer, and Sociocultural Risks

**Optional Reading (review for format of conceptual framework):**


Noser, K., & Bickman, L. (2000). Quality indicators of children's mental health services: Do they predict improved client outcomes? *Journal of Emotional and Behavioral Disorders, 8*(1), 9-18, 26. *(Note. This is an example of mediation in program evaluation.)*


program: Effects of Project ALERT. *Prevention Science, 6*(1), 353-46. (*Note.* This is an example of mediation in intervention research, where specific mediators are designated by the program designers.)


Readings from Rebecca Macy: Please scan all four manuscripts. See website for e-copies all each.

Mini-Assignments #3 (model) – #4 (related intervention) – Draw an Interventive Model and Describe an Evidence-Based Intervention: Bring a PA, RFP, or RFA to class and review it. Then, based on your readings and the list of core constructs (developed in the previous assignment), use the graphing techniques demonstrated in Orlando et al. (2005) to draw a mediational model depicting mediators and distal outcomes related to an intervention in your substantive area. Identify those factors and relationships that may be malleable.


**February 18  Class #6: Review and Catch-up**

Mini-Assignments #3 (model) – #4 (related intervention) – Draw an Interventive Model and Describe an Evidence-Based Intervention: Present and justify your “model” on the basis of one intervention study. Briefly describe and critique this study in a short memo (max 2 pages) written as you might develop a report for a research firm (e.g., see the Promising Practice Network at Rand Corp website) with a contract to screen promising interventions. Submit your model and the 2-page description of an empirically-supported intervention in your area.

**February 25  Class #7: Policy Changes as Interventions**
Practice Guidelines and Treatment Manuals

- What is the proper unit of intervention and analysis?
- Beyond the individual and family: Legislation, rules, and administrative procedures as interventions
- Specifying change strategies:
  - Practice guidelines
  - Intervention protocols
  - Treatment manuals

Required Reading:

On Reserve in Rare Books Orders and Directions… at Wilson Library (2nd floor rotunda) (DA398 1630 .G7):

*Sovereign* (1625-1649: Charles I) Orders and directions, together with a Commission for the better administration of justice, and more perfect information of His Majestie: How, and by whom the lawes and statutes tending to the reliefe of the poore, the well ordering and training of youth in trades, and the reformation of disorders and disordered persons, are executed throughout the kingdom / which His Royall Majestie hath commanded to be published and inquired of, by the body of his Priuie Councell, whom he hath made principall commissioners for this purpose. Imprinted at London: By Robert Barker, printer to the Kings most Excellent Majestie, and by the assignes of Iohn Bill, 1630.

Note. You will have to fill out a Rare Books Collection Application to see this document. The application form is posted to our website. Be sure to have your UNC One Card. The hours of the Rare Books Collection of the Wilson Library are: 8-5, weekdays; 9-1 on Saturdays. If you have difficulty, contact Libby Chenault (962-1143), Public Services Librarian.

Examples of Policies Intended to Produce Systematic Changes:


Web Resources for Practice Guidelines (partial list only)

Campbell Collaboration
http://www.campbellcollaboration.org/

Cochrane Collaboration Library (charge for full reviews)
http://www.cochrane.org/

Cochrane Developmental, Psychosocial, and Learning Problems Group
http://www.bris.ac.uk/Depts/CochraneBehav/

National Guideline Clearinghouse
http://www.guideline.gov/

Canadian Medical Association: Clinical Practice Guidelines
http://mdm.ca/cpgsnew/cpgs/index.asp

American Academy of Pediatrics: Practice Guidelines
http://aappolicy.aappublications.org/practice_guidelines/index.dtl

American Psychiatric Association: Practice Guidelines
http://www.psych.org/psych_pract/treatg/pg/prac_guide.cfm

NIDA Clinical Toolbox:

Mini-Assignment #5 – Specify Program Components: Find a practice guideline, practice protocol, treatment manual, or a strategic change in public policy (see above or, for a copy of a specific bill or resolution in your area of study, see the Library of Congress THOMAS website at http://thomas.loc.gov/). Bring it to class and be prepared to describe it to others. In a 1-page executive summary, identify the strengths and limitations, the theoretical roots, putative risk mechanism(s), and change strategies.
Tip: Because you have to develop your own practice protocol for your intervention project, try to select a practice guideline or protocol that addresses your need or problem area.

March 4

Class #8: Designing Culturally Congruent Interventions

- Specifying culture-based program mediators in the design of social interventions
- Scale design and cross-cultural research
- Role of qualitative research
- Consumer and parent groups, advisory boards, and consultants
- Human subject issues with vulnerable populations, including Certificates of Confidentiality

Guest Speaker (1:00 – 2:15 PM): Paul Smokowski, Associate Professor

Required Reading:

Proposal – we do not have permission to share this proposal outside of class.


Optional Reading:


Discussion: How are interventions in your area tailored on the basis of potential moderators such as age, class, culture, disability status, ethnicity, gender, language, race, religion, and sexual orientation? Be prepared to share one example.
Class #9: Working Draft for a Social Intervention Research Project

Assignment: Prepare a single-spaced (.5” margins), 6-7 page working draft of a proposal (excluding references) that addresses each of the following topics. You should propose only what can actually be done. Contact agencies if you need to access data or participants. Be sure that your proposal has high feasibility. Be prepared to present the paper for discussion in class. Write to a specific PA, RFA, or RFP and submit a copy of this PA, RFA, or RFP with your working model.

Specific Aims (1 page)
• Specify the aims of your study
• Specify any hypotheses

Background and Significance (3 pages)
• Describe the need or problem area in national terms by using incidence, prevalence, or other primary data. That is, make the case that you will address a problem of national significance.
• Develop and describe a conceptual framework or model (include a graphic image that specifies malleable mediators)
• Use research literature to support each construct in the conceptual framework. You are not expected to have completed this review of the literature. Describe 3-4 relevant articles. Be sure to assess the statistical conclusion and internal validity of this literature. Then
  o Identify the etiological or related literature on which you will rely
  o Identify the intervention (including policy, if relevant) literature on which you will rely

Design and Methods (2-3 pages)
• Identify relevant outcome measures and covariates (Be sure they are shown in your conceptual model). Specify instruments or well-known measures and describe their reliability and validity.
• Describe relevant practice guidelines, protocols, and manuals that are related to the mediators specified in the conceptual framework. Roughly outline your intervention and treatment manual.
• Identify two kinds of research designs you expect to explore. Briefly describe each.

References (use APA style)

Resource:
See Making Choices and other proposals. See course website.

Class #10: Seminar Leadership

Seminar Leadership #1
Quasi-Experimental Designs with and without Control Groups  
Time: 1:00 – 2:45

- Designs without control groups
- Designs that use a control group but no pretest
- Designs that use both control groups and pretests
- Designs that combine many design elements

Required Readings:


Seminar Leaders for Seminar #1:

1.

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Seminar Leadership #2
Interrupted Time-Series and Regression Discontinuity Designs in Policy Analysis and the Evaluation of Interventions
Time: 3:00-3:50

- Simple interrupted time series in tests of policy changes
- Adding other design features to the basic interrupted time series
- Problems with interrupted time-series designs
- The basics of regression discontinuity designs
- Cutoffs and threats to validity in regression discontinuity designs

Required Reading:

Shadish, Cook, & Campbell, 2002, pp. 171-245

Seminar Leaders:

1.

April 1  
Class #11: Seminar Leadership (continued)

Seminar Leadership #2 (continued)
Interrupted Time-Series and Regression Discontinuity Designs in Policy Analysis and the Evaluation of Interventions
Time: 1:00-1:45

- Simple interrupted time series in tests of policy changes
- Adding other design features to the basic interrupted time series
- Problems with interrupted time-series designs
- The basics of regression discontinuity designs
- Cutoffs and threats to validity in regression discontinuity designs
Seminar Leadership #3
Rationale, Recruitment, Types of Randomization, Program Implementation, Attrition, and Missingness

Time: 2:00-3:50

- Theory of random assignment
- Designs used with random assignment
- Conditions conducive to random assignment
- Recruiting participants to be in experiments
- Improving the random assignment process with matching
- Inducing and measuring implementation
- Attrition and imputation of missing information
- Translational research

Required Reading:

Shadish, Cook, & Campbell, 2002, pp. 246-278; 292-340

Seminar Leaders:
1.
2.

April 8

Class #12: Ethics in Intervention Research

Ethics
- Ethical codes
- Informed consent in experiments
- Withholding potentially effective services
- The ethics of random assignment
- When to discontinue studies
- Competing interests ($) in intervention research

Guest Speaker: Kim Strom-Gottfried, Professor

Required Reading (see course website):


**Project Benchmark – Editorial Assistance:** Give your proposal to a colleague for editing. Ask your “editor” to use the Comments function of MS Word or to draft written comments. [Note: Comments may be substantive as well as editorial. But at this stage of development, you probably need tips on the clarity and precision of your writing.]

**April 15**

**Class #13: Generalized Causal Inference**

- Formal sampling
- Grounded theory of generalized causal inference: Five Principles
- Critical analyses of assumptions
- Methods for single studies
  - Qualitative methods
  - Statistical models
- Methods for multiple studies (if time)
  - Narrative reviews
  - Quantitative reviews – meta-analyses

**Guest Speaker:**

Sheryl I. Zimmerman, Ph.D., Professor

**Required Reading:**
April 22

Class #14: Presentation of Intervention Research Proposals

Recommended Reading:


Note: Submit proposal and intervention protocol as separate documents. Attach to your proposal the PA, PFA, or RFP under which your proposal will be submitted.