I. COURSE PURPOSE

This course is designed to give undergraduate students in social work a basic understanding of the research process used by social workers and other social scientists for understanding the development and execution of research studies. The course covers research methodology and most commonly associated statistical strategies used for data analysis and the presentation of research findings. The course fosters critical thinking by examining how both quantitative and qualitative research studies are developed using various methodological designs and sampling strategies; how a literature review guides the formulation of a research question and testable hypothesis; how theory underpins the development of the topic for research investigation; how variables are identified, conceptualized, and measured; how data are collected; how the strengths and weaknesses of different designs influence the internal and external validity of designs for inferring causality and generalizability of study findings; and how different statistical techniques are applied to test the study propositions. In this process, ethical issues in conducting research with human subjects and concerns regarding ethnic and cultural diversity and vulnerability of at-risk populations are addressed as well. This course reviews and applies common statistical tests in the context of the interpretation of findings from various studies.

II. EDUCATIONAL OBJECTIVES

Students will learn the common steps of the research process and become knowledgeable about ethics and issues of ethnic and cultural diversity that may arise when conducting research with human subjects. Specifically, students are expected to be able to

1. Distinguish between quantitative and qualitative approaches in research investigation;
2. Formulate a research problem relevant to social work practice;
3. Identify a theoretical perspective underpinning the research problem area;
4. Formulate a specific research question and a testable hypothesis;
5. Identify independent and dependent variables and levels of measurement;
6. Distinguish between reliability and validity of measures;
7. Develop a probability and nonprobability sampling plan;
8. Describe and critique both group and single subject designs;
9. Critique experimental designs in terms of the threats to validity;
10. Develop a design to evaluate practice effectiveness;
11. Develop a design to evaluate a program;
12. Identify issues related to ethical and cultural diversity in research;
13. Identify ways to protect populations at risk when engaging in research;
14. Identify statistical techniques to use for specific research questions.

III. COURSE REQUIREMENTS

A. Required Texts

B. Course Contents, Assignments, Tests, and Homeworks
   This course uses a main textbook on social work research methods, and is delivered through on-site class sessions. These sessions include a lecture delivered by the instructor and typically include some presentation of power-point contents, handouts, class discussion and participation in exercises designed to practice selected contents. The in-class learning is also supplemented by (ungraded) homework assignments that provide practice to deepen learning; however, the completion of homeworks does contribute toward overall grade. The student competence and achievement in the application of the course contents is also tested by four graded assignments and four graded tests.

Please note that all related course materials are posted on CUA Blackboard (BB).
You need your CUA network login and password to enter BB.
   ➢ For class content materials, please view “Class Folders” under BB link for “Documents.”
   ➢ For Homeworks (HW), please view HW item instructions and submit under the link for “Assignments.”
   ➢ For Assignments 1-4, please view Assignments instructions and submit under the link for “Assignments.”
   ➢ For tests 1-4, BB will be used as well.

ASSIGNMENTS
   Each graded assignment is worth 10% of the overall grade, and all assignments are “take-home” assignments. The specific guidelines for each assignment are posted on Blackboard (BB) under the “Assignment Link.” Please note that ten percent (10%) will be deducted from any assignment that is submitted late. Any requests for extensions must be obtained prior to the due date!

Assignment 1: Informed Consent
   The focus of this assignment is to learn about *Informed Consent* in the context of research conducted with human beings. This assignment is connected to Homework 4, in which students listen to and view/read a variety of web-content materials related to the life of
Henrietta Lacks and the unconsented use of her cells. For this assignment, students write an individual reflection report pertaining to several posed questions. 
**Due:** Sunday, 1-25-2015; submit by midnight onto BB under Assignment 1.

**Assignment 2: Critique of a Research Article**
The focus of this assignment is to learn about strengths and weaknesses of different methodological processes that affect internal and external validity of a research study. The instructor assigns a quantitative research article for a scholarly critique. Students write a short critique report in response to a series of questions about the selected article.  
**Due:** Tuesday, 3-17-2015; submit by midnight onto BB under Assignment 2.

**Assignment 3: Analytical Decision Making**
The focus of this assignment is for students to interpret research study results that pertain to single subject designs and statistical results that pertain to general descriptive and inferential statistics used for group designs.  
**Due:** Thursday, 4-16-2015; submit by midnight onto BB under Assignment 3.

**Assignment 4: Faculty Interview**
The focus of this assignment is for students to learn more about research by interviewing a social work faculty member. Students are paired as a team of 2 or 3, and each team is expected to arrange an interview with a faculty member regarding the faculty member’s involvement in research. The interview typically lasts around 30 minutes, and is guided by a set of questions. The results of the interview culminate in a power-point presentation that is subsequently presented in an abbreviated form orally in class at the end of the semester. Specific instructions are provided as well. This assignment requires documentation of progress in homeworks 8, 15, and 24.  
**Due:** Sunday, 4-26-2015; submit by midnight onto BB under Assignment 4.

**TESTS**
Each test is worth 10% of the overall grade, and all tests are in-class written closed book or notes tests. They are based on the contents assigned by the instructor. All tests are in a written form that are presented as short questions for “fill-in answers”, “matching,” or “multiple-choice” answers. If a student is unable to take a given test on the scheduled date – he/she must notify the instructor as soon as possible. Make-ups can be given at the discretion of the instructor. **Please note that not taking a test on the scheduled date without a prior written explanation to the instructor is automatically assigned a grade of “Failure” (F).**

Please also note that if a student has a documented disability through DSS Office at CUA, then with the instructor’s approval and arrangements prior to testing, the student may pursue individualized testing arrangements at the DSS Office. If a student wishes to take the test through DSS office, he/she must present written documentation from the DSS Office at CUA to the course instructor prior to making test arrangements, and the DSS testing forms must be completed at least 1 week in advance.

**Testing Schedule**
<table>
<thead>
<tr>
<th>Test One</th>
<th>Class 8, Thursday, 2-5</th>
<th>Test Two</th>
<th>Class 15, Thursday, 3-5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Three</td>
<td>Class 25, Tuesday, 4-21</td>
<td>Test Four</td>
<td>CUA Exam week</td>
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</tbody>
</table>

Updated 12/02/2014
HOMEWORK (HW) ASSIGNMENTS
Homeworks contribute 10% toward overall grade. Most classes have some “practice” homework. Completing and posting homework (HW) on BB (under Assignment link) is worth “1” point. There are 19 homeworks that require the completion of a practice assignment. Two additional homeworks (HW 7 and HW 14) have no required submissions as other activities take place during the week. Three additional homeworks: HW 8, HW 15, and HW 24 are used as “progress notes” for documenting the progress toward the completion of the graded Assignment 4. Completing 19+ HWs = 95 points, completing 18 HWs = 90, 17 = 89, 16 = 86, 15 = 82, 14 = 79, 13 = 60, 12 = F.

C. **Grading Policy**

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<thead>
<tr>
<th>Weight within 100% scale</th>
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<tbody>
<tr>
<td>Tests (10% each)</td>
<td>40%</td>
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<tr>
<td>Assignments (10% each)</td>
<td>40%</td>
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<tr>
<td>Homeworks</td>
<td>10%</td>
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<tr>
<td>Attendance and class participation</td>
<td>10%</td>
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D. **Course and Instructor Evaluation**

NCSSS requires electronic evaluation of this course and the instructor. At the end of the semester, the evaluation form may be accessed at [http://evaluations.cua.edu/evaluations](http://evaluations.cua.edu/evaluations) using your CUA username and password. Offering additional informal written or verbal feedback to the instructor during the semester is encouraged and attempts will be made to respond to requests.

E. **Class Attendance and Participation**

Students are expected to attend and participate meaningfully in all class discussions. The instructor provides a sign-in sheet for all class participants. Two percent (2%) is deducted from the grade for attendance and participation for each unexcused absence unless the student notifies the instructor and requests an excused absence prior to the class meeting class. One percent (1%) will be deducted from the grade for attendance and participation for each time a student is late, unless the professor is notified in advance.

Students participating in CUA athletic sport activities must notify the instructor in a timely manner of any potential absences from class; provide written documentation of their athletic participation; and plan ahead for any potential class absences. Students are, however, responsible for making up any missed work as normally expected in the course class schedule.

**Use of Listening Electronic Devices:** Students are also advised that all electronic devices (such as cell phones, ear-cell phones, I-Pods, or music and other such sound-making devices) must be removed and silenced prior to class. E-mailing, texting, game playing, surfing, or other non-academic uses of electronic devices are not acceptable during class sessions. In emergency situations, the message recipient should leave the room, returning when the situation has been addressed.

**Assistive learning devices authorized by the Disability Support Services (DSS) Office** are welcome in the classroom and should be used in a manner consistent with the formal learning assessment recommendations provided by that
office. It is expected that a student will provide the instructor with written documentation from DSS authorizing the use of the device during classes.

**Use of Class Content Materials and Confidentiality:** Please be aware that all class materials including the syllabus, power-point slides, or handouts, and all such materials are copyrighted materials to NCSSS and the instructor, and are meant for class educational purposes only, and are not to be disseminated without explicit written permission from the instructor. **Please also note** that all class discussions are confidential as they make include case-related examples from the instructor’s projects and field experiences, and are not to be repeated beyond the classroom context.

**Use of Recording or Videotaping:** Please be aware that all class sessions are not to be recorded unless the student receives a specific permission from the instructor. Students who choose to bring personal computers or other note taking/audio/video recording devices to classes are expected to seek the prior approval of the instructor.

**IV. CLASS EXPECTATIONS**

A. **Scholastic Expectations**
   Please refer to NCSSS Announcements or the Undergraduate Program Handbook for Academic Requirements, including scholastic and behavioral requirements. All written work should reflect the original thinking of the writer, cite references where material is quoted or adapted from existing sources, adhere to the APA-6 style format, and should be carefully proof read by the student before submission to the instructor for grading.

B. **Academic Honesty**
   Joining the community of scholars at CUA entails accepting the standards, living by those standards, and upholding them. Please refer to University Policy and appropriate Program Handbooks.

C. **Accommodations**
   Students with physical, learning, psychological or other disabilities wishing to request accommodations during their course participation or testing must first make a contact with the Disability Support Services (DSS) and then submit documentation of their disability to the instructor prior to seeking accommodation. DSS office provides instructions how to document disability or what information is needed.

   If you have documented such a disability to DSS that requires accommodations or an academic adjustment (for example during testing), please arrange a meeting with the course instructor as soon as possible to discuss these accommodations. All arrangements for accommodations during testing must be completed prior to the actual course testing (typically at least week or so in advance!).

Updated 12/02/2014
CLASS SCHEDULE

WEEK 1

CLASS 1      OVERVIEW OF COURSE
1-13 Tu      Beginning: Why do social work research?
              Types of reasoning in conducting research.
              The scientific method and the process of gaining “evidence” in research.
              Type of studies: descriptive, exploratory, explanatory, and evaluative.

Reading Assignment:
Engel and Schutt, Chapter 1: Science, Society, and Social Work Research

HW1: Read a journal article on BB (under Assignment link): Miller, P.M. (2011). A critical analysis of the research on student homelessness. Review of Educational Research, 81. 308-337. Complete a brief (1-3 pages) homework report that addresses the following questions:
1) Identify the type of study does this article represents (in respect to the type of studies you learned to differentiate in chapter 1).
2) Consider the various definitions of homelessness as it pertains to children in this article, and present at least three different definition examples being presented by the author.
3) Consider the different possible causes of homelessness as it pertains to children, and present at least three different causes being suggested by the author.
4) Consider the author’s discussion on “what may help” homeless children, and present at least three kinds of supports that you gleam from this discussion.
5) Finally, discuss why this study is important for social work knowledge.
6) Lastly, reflect on whether you were surprised by any of the information regarding homelessness in this article, and explain why or why not.
DUE: Upload onto BB by Thursday midnight.

CLASS 2      LEARNING TO DISTINGUISH SCIENCE AND PSEUDOSCIENCE
1-15 Th      Website: Read information on this site: https://webspace.utexas.edu/cokerwr/www/index.html/distinguish.htm

Reading Assignment:
Engel and Schutt, Chapter 1: Science, Society, and Social Work Research

HW2: Read on the Pseudoscience “Why Therapeutic Touch Should Be Considered Quackery” at the two following websites:
http://www.quackwatch.org/01QuackeryRelatedTopics/tt.html
http://www.quackwatch.com/01QuackeryRelatedTopics/tt2.html

Complete a brief assignment (1-3 page) report that addresses the following questions:
(1) Explain what is “therapeutic touch” as it is being described in the healing context.
(2) Briefly discuss what you thought about the “research validity” or causal implication being ascribed to the use of “therapeutic touch.”
(3) Address why the use of “therapeutic touch” intervention has been considered as a pseudoscience study.
(4) Search through Google and find any study that recently investigated the use of “therapeutic touch” intervention with some population between 2000 – 2014. Reference this study (using
APA-6 style), read this study, and summarize the findings by presenting: (a) The purpose of the study or its objective for using the “therapeutic touch” intervention; (b) “Who” was studied, how many were studied, and by what method the sample of participants was obtained; (d) “What kind of design” (experimental or not) was set up for using the “therapeutic touch” intervention; (e) Identify the study limitations as presented by the authors and note any limitations or questions that you may have thought about regarding any aspect of this study (that is not discussed by the authors); and (f) Reflect on what you thought on the authors’ conclusions regarding the use of “therapeutic touch” as an intervention. DUE: Upload to BB by Sunday midnight.

**WEEK 2**

**CLASS 3** GUIDELINES FOR CONDUCTING ETHICAL RESEARCH
1-20 Tu Philosophical approaches and ethical principles
Guidelines for social work research and NASW Code of Ethics
Protection of human subjects, especially vulnerable populations

**Class Practice Exercise:** Practicing the identification of strengths and weaknesses of Informed Consent document used for a research study.

*Reading Assignment:* Engel and Schutt, Chapter 3: The ethical and scientific guidelines for social work research


**HW 3:** After class, please read article: Neutel, I. C. (2004). The dilemma of using human s as research subjects: An assessment of risks and benefits. *Drug Information Journal, 38*, 113-115. Please notice: At the end of this article is a “Post-test” – please complete the post-test and submit your answers for each posed question, and bring a copy to class 4 for review and discussion. DUE: Thursday, upload to BB prior to class!

**CLASS 4** GUIDELINES FOR CONDUCTING ETHICAL RESEARCH
1-22 Th Informed Consent

**Class Practice Exercise:** Practicing knowledge of ethical conduct in research by discussing answers for the “post-test” evaluation of the article in HW3!

*Reading Assignment:* Engel and Schutt, Chapter 3: The ethical and scientific guidelines for social work research

**HW 4:** Please notice that this homework is essential for completing the graded Assignment I. The homework requires you to set up web-based time, and then listen and read information on Henrietta Lacks as excerpted from the book: “The Immortal Life of Henrietta Lacks” by Rebecca Skloot. Websites:
(a) Listen to 2.35mins YouTube: Henrietta Lacks at *http://www.youtube.com/watch?v=rIINobLQvlg*

Updated 12/02/2014
(b) Listen to 4.56mins of YouTube: Seeking Henrietta at http://www.youtube.com/watch?v=497Scue9sdY
(c) Listen to 10.34mins YouTube: The immortal Black Woman… at http://www.youtube.com/watch?v=KwMJGRB1FiU
(d) Listen to 26mins web-based radio discussion: Henrietta’s Tumor at http://www.radiolab.org/2010/may/17/henriettas-tumor/
(e) Read on-line Johns Hopkins Magazine: Henrietta’s Dance at http://www.jhu.edu/jhumag/0400web/01.html

(f) Please consider that you are learning about key features of Informed Consent that is needed for the ethical conduct of scientific research with human beings. Please find one other website that pertains to the issue regarding “Informed Consent” that may be useful for others to read and learn about from the web – and copy this website address on a one-page WORD document along with a brief description regarding what you learned from this web link content – and submit as your homework completion:
DUE: Saturday, 1-24-15, upload on BB by midnight.

**Complete Assignment 1:** Write a 2-page reflection on the following questions: (a) In what way is the life and legacy of Henrietta Lacks important to social work understanding how Informed Consent should be applied in research with human subjects? (b) What do you think about a situation in which you may undergo routine lab work in which your blood or tissue is collected, and subsequently your “unused” blood or “tissue” is used for a medical research without your knowledge. What “pros” and “cons” are involved in this situation? What criteria should be followed in this context?
DUE: Sunday, 1-25-15, by midnight: Submit onto BB under Assignment 1!

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**WEEK 3**

**CLASS 5**

**GETTING STARTED WITH THE RESEARCH PROCESS**

1-27 Tu  
Research questions and hypotheses  
Variables: Independent and dependent  
Literature reviews, and role of theory  
Distinguishing quantitative vs. qualitative approaches in research

Reading Assignment: Engel and Schutt, Chapter 2: The process and problems of social work research.

Articles to read prior to class: Please bring a copy of the article to class!

**Class Practice Exercise:** Based on the two articles, class group discussion will contrast quantitative and qualitative research process by identifying the following items: (a) study purpose, (b) study research questions or hypotheses, (c) study design, (d) sampling strategy in selecting and obtaining participants, (e) Based on the qualitative research article, write an
example of a possible quantitative research question and its related hypothesis, and in this hypothesis identify the independent and dependent variables.

**HW 5: Posted on BB:** Practice writing research questions, hypotheses, and identifying variables. DUE: Upload to BB prior to Class 6 and bring a copy to class 6 for review.

**CLASS 6**  
MEASUREMENT IN RESEARCH  
1-29 Th  
Defining and Measuring Variables  
Types of variables - Levels of measurement  
Review HW 5 – Application of Concepts for writing research questions, hypotheses, and identifying variables as independent and dependent.

**Class Practice Exercise:** Practicing the differentiation of levels of variable measurement.

*Reading Assignment:* Engel and Schutt, Chapter 4: Measurement

**HW6:** Posted on BB: Practice test 1 exercises. DUE: Class 7, 2-3-15, by midnight.

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**WEEK 4**

**CLASS 7**  
MEASUREMENT IN RESEARCH, CONTINUED  
2-3 Tu  
Types of Instruments  
Reliability and Validity of Measuring Instruments  
Measurement errors  
Measurement validity issues with diverse populations

**Class Exercise:** Practicing the differentiation between instrument reliability validity.

*Reading Assignment:* Engel and Schutt, Chapter 4: Measurement


**HW7:** None Assigned: But note that answers for practice test 1 will be available in class 7 folder, added on Wednesday morning.

**CLASS 8**  
TEST 1: IN CLASS.  
2-5 Th

**HW8:** Post progress note 1 on arrangements you have made for securing a date and time for Assignment 4: Faculty Interview. DUE: Sunday, 2-8-15, by midnight.
WEEK 5

CLASS 9  SAMPLING APPROACHES IN RESEARCH STUDIES
2-10 Tu  Sample Planning
          Sampling terminology
          Probability sampling methods

** Class Exercise: ** Practicing differentiation of probability sampling strategies.

*Reading Assignment*: Engel and Schutt, Chapter 5: Sampling

**HW 9: Posted on BB**: Practice sampling strategies; DUE: By uploading prior to class 10!

CLASS 10  SAMPLING, CONTINUED
2-12 Th  Non-probability sampling
          Generalizability of results
          Issues of diversity in sampling
          Review HW

*Reading Assignment*: Engel and Schutt, Chapter 5: Sampling


** Class Exercise: ** Practicing differentiation of probability and non-probability sampling strategies.

**HW 10: Posted on BB**: Practice sampling strategies; DUE: By midnight, Sunday 2-15

WEEK 6

CLASS 11  CAUSATION AND GROUP RESEARCH DESIGNS
2-17 Tu  Criteria for causal inference using group designs
          Type of designs: Cross-sectional, longitudinal, panel, and cohort
          Unit of analysis and errors of causal reasoning

** Class Exercise: ** Practicing the identification of unit of analysis and errors in causal reasoning.

*Reading Assignment*: Engel and Schutt, Chapter 6, “Causation and Research Design”


**HW 11: Posted on BB**: Practice related to casual inference; DUE: Upload prior to Class 12.
CLASS 12  GROUP EXPERIMENTAL DESIGNS
2-19 Th  Classic experiment and Solomon’s 4 groups
        Importance of randomization into groups
        Importance of random selection of participants for a study
        Threats to internal study validity or causal inference
        Threats to external study validity or generalizability

Reading Assignment: Engel and Schutt, Chapter 7: Group Experimental Designs


** Class exercise: Practicing naming of different experimental designs, using XO nomenclature, and identifying strengths and weaknesses of internal and external validity in designs.

HW 12: Posted on BB: Practicing differentiations of strengths and weaknesses of internal and external validity of group designs; DUE: Sunday, 2-22-15, by midnight upload to BB.

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WEEK 7

NOTE:  TUESDAY 2-24-15 = NO CLASS
ADMINISTRATIVE MONDAY: ONLY MONDAY CLASSES MEET!

Class 13  GROUP EXPERIMENTAL DESIGNS, CONTINUED
2-26 Th  Consequences of lack of group equivalence
        Diversity and evidence-based practice in group designs
        Ethical issues in experimental research: Selection, deception

Reading Assignment: Engel and Schutt, Chapter 7: Group Experimental Designs


** Class exercise: Practicing identifying threats to internal and external validity.

HW 13: Posted on BB: Preparing for Test 2: Practicing sampling and different elements of causal inference, identifying designs, and critiquing their strengths and weaknesses as pertains to internal and external validity of different designs. DUE: Upload by Sunday, 3-1-15 by midnight.

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WEEK 8

CLASS 14  CONDUCTING A JOURNAL ARTICLE CRITIQUE
3-3 Tu    Prior to class: Read the article for class practice and bring a copy to class.
        Address posted questions about the article.
**Class practice article:** Practice article critique using the article by Pomeroy, Kiam, and Abel (1999). The Effectiveness of a Psychoeducational Group for HIV-Infected/Affected Incarcerated Women.

*Reading Assignment:* Engel and Schutt, Appendix B

**HW 14:** None assigned: Please review answers for HW 13, posted on BB in folder for class 14!

**Note:** The assigned article for article critique is posted on BB under “Assignment 2” and it is DUE: After Spring Break, Class 16, 3-17-15, by midnight.

**CLASS 15 TEST 2: SAMPLING, CAUSALITY, AND GROUP DESIGN**
3-5 Th

**HW 15:** Post progress note 2 on Assignment 4: Faculty Interview. DUE: Friday, 3-6, by midnight.

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**WEEK 9**

**SPRING BREAK: NO Classes 3/9/15 TO 3/16/15**

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**WEEK 10**

**Class 16**
**SURVEY RESEARCH**
3-17 Tu
- Guidelines for constructing questionnaires
- Errors in using questionnaires
- Sensitivity to diverse populations

**Class exercise:** Practicing differentiation of elements of good and weak questions

*Reading Assignment:* Engel and Schutt, Chapter 9: Survey Research


**HW 16:** Practice questions for conducting surveys, on BB. DUE: Upload prior to Class 17.

**NOTE:** Assignment 2 is due today by midnight!

**CLASS 17:**
**QUALITATIVE RESEARCH**
3-19 Th
- Fundamentals for qualitative research methods
- The case study and implications for evidence based practice
- Participant systematic observations: sampling people and events
- Focus groups

Updated 12/02/2014
Ethical issues in qualitative research

**Article to read prior to class:** Peek, L., & Fothergill, A. (2009). Using focus groups: Lessons from studying daycare centers, 9/11, and Hurricane Katrina. *Qualitative Research, 9*, 31-59.

Address the following questions: (a) Explain what is meant by using a focus group in qualitative research, (b) Describe the two type of participant recruitment used in the article-project, (c) Define “segmentation” and explain how it is used in this focus group, (d) Identify the strengths and limitations of focus group approach as used in this project. Bring the article and some of your completed answers to class.

*Reading Assignment:* Engel and Schutt, Chapter 10: Qualitative Research

**Class exercise:** Practicing knowledge on focus groups pertaining to prepared article and questions.

**HW 17:** Search the web, and find and (a) submit another article on the use of focus groups in social work (or in psychology, education, or health sciences); (b) reference and read the article, and briefly summarize how this study used the focus approach, with whom, for what purpose, and what was found, and finally (c) reflect on what you have learned about the role “of the researcher” in conducting focus groups. DUE: Upload by Sunday, 3-22-15, midnight.

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**WEEK 11**

**CLASS 18**  |  **SINGLE SUBJECT RESEARCH DESIGNS**
3-24-Tu       | The basic structure of single-subject designs
              | Types of single-subject designs
              | Experimental and non-experimental SSD design

**Class Exercise:** Practicing differentiation of SSD designs.

*Reading Assignment:* Engel and Schutt, Chapter 8: Single-Subject Design


**HW 18:** Posted on BB: Practice on differentiation of SSD designs. DUE: Prior to class 19.

**CLASS 19**  |  **SINGLE SUBJECT RESEARCH DESIGNS, CONTINUED**
3-26 Th        | Causal inference in SSD design approach
              | Analyzing single-subject designs
              | Using multiple baselines for AB designs

**Class Exercise:** Practicing causal inference in using multiple baseline approach.

*Reading Assignment:* Engel and Schutt, Chapter 8: Single-Subject Design

Updated 12/02/2014

**HW 19: Posted on BB:** Practice causal inference and analysis of SSDs. DUE: Sunday, 3-29-15, by midnight.

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**WEEK 12**

<table>
<thead>
<tr>
<th>CLASS 20</th>
<th>USING STATISTICS IN RESEARCH STUDIES</th>
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<tbody>
<tr>
<td>3-31 Tu</td>
<td>Describing participants characteristics based on the level of variable measurement: Use of graphs</td>
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<td>Measures of central tendency (mean, median, mode)</td>
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<td>Measures of variability (range, standard deviation, percentages)</td>
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<tr>
<td></td>
<td>Rule of normal distribution for data interpretation using Bell curve</td>
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<tr>
<td></td>
<td>Using percentiles and rules of normal distribution</td>
</tr>
</tbody>
</table>

*Reading Assignment:* Engel and Schutt, Chapter 14: Quantitative Data Analysis

*Additional Reading Assignment:* Provided by Instructor on BB

**Class Exercise:** Practicing application of rule of normal distribution for interpreting data.

**HW 20: Posted on BB:** Practicing interpretation of graphs and descriptive statistics. DUE: prior to next class 21.

**NOTE:** HOLY THURSDAY + EASTER = NO CLASS (4-2 TO 4-6 IN 2015)

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**WEEK 13**

<table>
<thead>
<tr>
<th>CLASS 21</th>
<th>USING STATISTICS IN RESEARCH, CONTINUED</th>
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<tbody>
<tr>
<td>4-07 Tu</td>
<td>Understanding z-scores and their application</td>
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<td>Using z-scores for comparing sample data</td>
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<td>Using Z-test for comparing sample and population parameters</td>
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<td>Using z-score table for determining percentiles</td>
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<td>Statistical significance: p-value interpretation</td>
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<td></td>
<td>Hypothesis testing and types of error committed</td>
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</tbody>
</table>

*Reading Assignment:* Engel and Schutt, Chapter 14: Quantitative Data Analysis

*Additional Reading Assignment:* Provided by Instructor on BB

**Class Exercise:** Practicing using z-scores for percentiles, and using Z-test to compare results from a sample of participants in relation to known-population parameters.

**HW 21: Posted on BB:** Practicing z-score and Z-test application, and interpretation of results. DUE: Sunday, 4-12-15, by midnight.
CLASS 22  CHI-SQUARE TEST
4-9 Th  Hypothesis testing and association
Interpreting frequency comparisons in cross-tabulation
Interpreting chi-square results
Determining effect size

*Reading Assignment:* Provided by Instructor on BB

**Class Exercise:** Interpreting results with chi-square data with and without statistical significance.

**HW 22:** Posted on BB: Practice on the interpretation of chi-square test results. DUE: Prior to next class.

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WEEK 14

CLASS 23  CORRELATION TEST
4-14 Tu  Pearson bivariate correlation
Interpreting linear r-results
Determining effect size

*Reading Assignment:* Provided by Instructor on BB

**Class Exercise:** Interpreting results with correlation data with and without statistical significance.

**HW 23:** Posted on BB: Practice TEST 3. DUE: Sunday, 4-13-14; answer will be available Monday, 4-19-15, posted under Documents in Class 24 folder.

CLASS 24  TWO GROUP MEAN COMPARISONS
4-16 Th  Independent and Repeated t-test
Interpretation of study results

*Reading Assignment:* Provided by Instructor on BB


**Class Exercise:** Practicing interpretation of study results using t-tests.

**NOTE:** Assignment 3 is due today by midnight, upload to BB!

**HW 24:** Post progress note 3 on Assignment 4: Faculty Interview. Due: By Friday, 4/17 midnight.

Updated 12/02/2014
WEEK 15

CLASS 25
4-21 Tu
TEST 3 IN CLASS

CLASS 26
4-23 Th
THREE GROUP MEAN COMPARISONS
Application of ANOVA F test
Interpretation of study results

Reading Assignment: Provided by Instructor on BB

** Class Exercise: Practicing interpretation of study results using t-tests and ANOVA.

**Assignment 4: DUE: Sunday, 4-26-15, by midnight!

WEEK 16

CLASS 27
4-28 Tu
CLASS PRESENTATION: ASSIGNMENT # 4
**Note: Practice test 4 is posted in this class folder.

CLASS 28
4-30 Th
LAST CLASS
Complete class presentations
Review for test 4

**Note: Answers for practice test 4 are posted in this class folder on Sunday, 5-3-15.

** Exam Week: Test 4 (Covers materials from all prior tests)

THE END    THANK YOU AND HAVE A GOOD SUMMER!    Dr. Farber

Updated 12/02/2014
ASSIGNMENT 4

Faculty Interview: Why do social workers need to be engaged in research?

Instructions:

a. Please select a partner in class to form a team, and decide on the following tasks.

b. One team member will be responsible for arranging an email appointment with a social work faculty member well in advance of your due date of the assignment;

c. The team plans together how the interview will be conducted: Who will take notes, who will ask questions, and how notes and information will be transcribed; and eventually how the information will be developed into a “power-point presentation.” The team should plan at least a half-hour for the faculty interview.

d. When contacting the faculty member, please explain the purpose of your appointment, and make sure that you also confirm the appointment by email or phone the day before your actual appointment.

e. Please be on time for your interview and please be prepared with your questions and how you want to conduct the interview, while also collecting information during the interview. Once you complete the interview, please don’t forget to thank the faculty member;

f. After the interview: Organize your collected interview information and then decide how you want to present all your findings into a power-point presentation (typically no more than 10-15 content slides and 3 “required” course slides).

g. Besides having “interview” related contents slides, please make sure that your presentation has the following “required” slides (a) Title slide with Assignment 4, SSS 341, year, and student author names, (b) Faculty name and credential slides, and (c) Student contribution slide: A brief explanation on how each member of the team contributed to the development of this assignment.

h. Please use a scholarly professional approach in organizing and developing your slides and then, oral presentation. You may also want to do some planning (and research) on what makes a good power-point presentation, and how best to use the slides within your oral presentation. Please make sure that your slides are numbered!

i. Upload the power-point slide presentation onto BB by SUNDAY, 4-26-15 under Assignment 4.

j. Note that your oral presentation will take place subsequently during the last week of the academic semester.
k. Please make sure that you document progress on your assignment by posting three updates or notes for the following homeworks: HW 8 (Due Sunday, 2-8-15, midnight); HW 15 (Due Friday, 3-6-15, midnight), and HW 24 (Tuesday, 4-16-15, midnight).

1. Class oral presentation: Each team will be allotted around *10 minutes* for presentation. In this presentation you need to accomplish the following information:
   - Introduce the faculty member and their research interest.
   - What has been their favorite research project in which they have ever engaged?
   - Briefly describe the project, and address the project’s contribution to social work.
   - Also briefly explain summarize the article you have read, and how the findings contribute to social work.
   - Based on your overall interview, discuss why social workers should become involved in doing some form of research.

*Additional notes for the oral presentation:* Keep in mind that for your oral presentation you may use your slides; however, you do not need to use every single one of them (depending how many you submitted) as you will not have more than 10 minutes for your oral presentation. Therefore, you need to decide *ahead of time* how you want to orchestrate your oral presentation and which slides you will use, and whether you will also include a handout for your audience, and so on. That is, besides using (all, or some selected) slides, you can also use any other materials that you wish in order to deliver a successful oral presentation that should be around 10 minutes long.

**Interview Guiding Questions:**

1. What is the focus of your research interests? What type of research have you been involved in?

2. Can you provide *one or two* concrete examples of your research involvement or a project, etc……and then describe the project……Who was studied, what kind of research was conducted, what did the project accomplish, and did this project result in a publication/presentation or scholarship (get the reference for the article or a book)……

3. What has been your *favorite research* project? Why are/were you interested in this project area? What was the purpose and what was your role on this project – research? How long did this project take? …..What did the project find?

4. In what way did this project/research contribute to knowledge building and how was it relevant to social work?

5. What type of skills did you need for (or develop during) the research project?

6. In your opinion, why is it important that social workers become involved in research?

7. Are there differences in which social work research may differ from research in other social science disciplines? Are there similarities and overlaps as well?

8. Based on your experience, what was the most exciting part for you in engaging in research, and what was the least exciting?
9. Find one published article that this faculty member has written (reference it (using APA-style 6) at the end of your report), and briefly discuss this article on the following points: (a) What kind of research was conducted and for what purpose, (b) what was found, and (c) in what way does this article illustrate the importance of conducting research.

**DUE:** Upload all your slides for a power-point presentation by SUNDAY, 4-26-15.

**Grade Rubric:**

- **100%**
  - 5% Completion of all three progress notes
  - 70% PPT slide presentation (Format, Organization, Professional Appearance = 70%, Grammar, Punctuation, Sentence Structure = 30%)
  - 25% Oral presentation (Student class rating of the oral presentation regarding organization, content of the presentation, delivery method of the presentation, contribution to learning regarding social work research, contribution to learning about faculty member’s research)