SYLLABUS

SEMESTER OFFERED: Fall Semester 2009
COURSE NUMBER AND TITLE: PSYC385, SW385, SS385 - Research Methodology
CREDIT HOURS: 3
COREREQUISITE: Psychology 300 - Statistical Methods or its equivalent
INSTRUCTOR: Dr. Dan Mayton
OFFICE: Spalding Hall, Room 213F PHONE: 792-2280
E-MAIL: dmayton@lcsc.edu FAX: 792-2571
OFFICE HOURS: Monday and Wednesday 10:30 – 11:45 am & 2:00-3:00 pm

COURSE DESCRIPTION:
This interdisciplinary course is designed to develop each student's ability to design an empirical study within the ethical constraints of human research and to understand the results of empirical research presented in professional journals. Specific research designs covered in this course include archival research, experimental designs, naturalistic observation, participant observation, quasi-experimental designs, single subject designs, and survey research. Research examples will be drawn from the fields of business, criminal justice, education, psychology, nursing, and social work with a special emphasis on social issues research (e.g. cultural and gender issues, environmental concerns, global change, and social justice). Therefore, this course will integrate (1) analytical and evaluative thinking, (2) descriptive, explanatory, and critical writing, and (3) basic knowledge of the theory and application of qualitative and quantitative research designs. The emphasis in this course will be on the use of research and scientific inquiry as a professional tool to enhance one's discipline via the application of multiple research designs for ethical program evaluation.

REQUIRED TEXTBOOKS:
Babbie. E. (2008). *The basics of social research (4th Ed.)* Belmont, CA: Wadsworth.

COURSE GOALS:
To satisfactorily complete this course, students must demonstrate the following:

1. Knowledge of the basic steps of scientific methods.

2. Knowledge of basic data gathering techniques and the implications of these methods for behavioral, social, and natural science research.

3. Knowledge of the strengths and weaknesses of the major quantitative and qualitative research designs used in behavioral, natural, and social science research.

4. Ability to design an ethical and valid study to evaluate an hypothesis.

Note to Students
If you need course adaptations or accommodations because of a disability, if you have emergency medical information to share with the instructor, or if you need special arrangements in case the building must be evacuated, please make an appointment with the instructor as soon as possible.

TENTATIVE COURSE OUTLINE (Subject to change by professor)

Week of August 24th – Human Inquiry: Science, Paradigms, and Theory

Babbie - Chapters 1 and 2

Week of August31st – Hypotheses and Ethics

Babbie – Chapters 3 and 15

Week of September 7th – Research Designs and Variables

Babbie - Chapters 4 and 5

A brief paper describing your topic for your research proposal, a tentative hypothesis or two of interest to you, and a description of *how you will complete a review* of the literature for your topic is due by 5:00 pm on Friday of this week. Be specific about which databases, etc. you will use and which key terms you will use in your search for relevant articles. This should be a typed one page double-spaced paper.

Week of September 14th – Indexes and Scales

Babbie – Chapter 6

Week of September 21st - Examination #1

Examination #1 will take place this week. This exam will assess material covered in the class presentations and assigned readings in your text up to this point in the course. See your study guide for this exam near the end of your syllabus.

Week of September 28th –Experimental Designs

Babbie - Chapter 8

Your APA style reference list is due your instructor's office or his mailbox in Spalding Hall Room 101A by 5:00 pm on Friday of this week. You should include the complete reference for a **minimum of 12 sources** relevant to your topic. **No more that four sources can be webpages**.This should be a typed page double-spaced paper following the APA style.

Week of October 5th - Sampling

Babbie - Chapter 7

Week of October 12th - Surveys

Babbie – Chapter 9

Week of October 19th – More on Surveys

Babbie – Chapter 9

Review of the literature/Introduction to your proposal is due by Friday of this week at 5:00 p.m. in Spalding Hall Room 101A

Week of October 26th - Examination #2

Examination #2 will take place this week. This exam will assess material covered in the class presentations and assigned readings in your text up to this point in the course. See your study guide for this exam near the end of your syllabus.

Week of November 2nd – Qualitative Research
Babbie - Chapter 10

Week of November 9th – Unobtrusive Research
Babbie - Chapter 11

Week of November 16th – Evaluation Research
Babbie - Chapter 12

Week of November 23rd – Thanksgiving Week Vacation

Week of November 30th - Examination #3
Examination #3 will take place this week. This exam will assess material covered in the class presentations and assigned readings in your text since the last examination. See your study guide for this exam at the end of your syllabus.

Week of December 7th – Oral Presentations
Oral presentations of research proposals.
Research proposal is due by Friday of this week at 5:00 p.m. in Spalding Hall Room 101A.

Week of December 14th - Final Examination
The final examination is comprehensive and will be in the regular classroom on Thursday December 17th from Noon until 1:50 pm. This examination will assess material covered in the class presentations and assigned readings in your text. Use your study guides for all three exams for this exam.

METHODS OF EVALUATION:
Grades will be based on a 600 point system, with maximum points allotted in each area as follows:

Examination #1	100
Examination #2	100
Examination #3	100
Topic Statement Paper	20
Reference list	20
Review of the literature/Intro to proposal	40
Oral Presentation of research proposal	20
Research Proposal	100
Final Examination (comprehensive)	100

Assignments not completed on time will be penalized 10% of the maximum point total allotted per class period that it is late. No assignments will be accepted more than two weeks late. Any assignments which do not meet acceptable standards regarding correct grammar usage, logical organization and accuracy of presentation will need to be redone. The final point total for each assignment will be the average of all work completed up to and including the competent completion of the assignment.

Students who will miss a class in which an examination is scheduled need to make arrangements for a makeup examination before the scheduled time of the examination. If students miss an examination due to illness, they must previde a doctor's excuse or a slip indicating they visited the LCSC Student Health Center in order to be able to sit for a makeup examination. Students without a written excuse from their doctor or the LCSC Student Health Center will not be allowed to take a makeup examination and will be assigned a zero for that examination.

Final course grades will be assigned on a percentage basis as follows:

Grade	Percentage of Points	Total Points
A	93 - 100 %	558 - 600
A -	90 - 92.9 %	540 - 557
B +	87 - 89.9 %	522 - 539
B	83 - 86.9 %	498 - 521
B -	80 - 82.9 %	480 - 497
C +	77 - 79.9 %	462 - 479
C	73 - 76.9 %	438 - 461
C -	70 - 72.9 %	420 - 437
D +	67 - 69.9 %	360 - 401
F	59% or lower	359 or less

Guidelines for Your Review of the Literature (40 points)

For this class your review of the literature/introduction to your proposal should follow the APA style. The successful introduction is usually 6-10 pages long. It is strongly recommended that you include the headings for each section of your introduction as indicated in the APA manual. Naturally, your review should be typewritten and double-spaced. I prefer that you staple your proposal in the upper left hand corner and do not put it in any special cover.

You should start with a strong attention-getting paragraph which sets the stage to explain the topic of your review. After you describe your topic in a general way, you need to include a review of relevant research literature to show the relation of your proposed research to what has already been done. If possible you should relate your topic and/or problem to theory, as well as, demonstrate the need for your proposed research. At the end of your review/introduction you should list your hypothesis in clear and precise terms. The importance and uniqueness of your proposed research and problem should be obvious to the reader. You should include the complete reference list of all works quoted or cited in your text with no more that four sources being webpages.

Oral Presentation of Proposal

You will have five minutes to describe your research proposal to the class. If you are doing your proposal in a group, the entire group will have five minutes total. Your oral presentation of your research proposal will be worth a total of 20 points with the following breakdown:

Introduction (5 points)
Method
Participants (5 points)
Instrumentation, Design and Procedures (5 points)
Limitations (5 points)

You may speak from notes but you should **NOT READ** your presentation.

Guidelines for Your Research Proposal

For this class your research proposal should follow the APA style. The successful proposal is usually 8-16 pages long. It is strongly recommended that you include the headings for each section of your proposal as indicated in these guidelines although some slight modifications may be appropriate for some of you. Naturally, your proposal should be typewritten and double-spaced. I prefer that you staple your proposal in the upper left hand corner and do not put it in any special cover. The first section is your introduction/review and this was described above. *[20 points possible for your introduction section]*

Method

You should write the methods section using the future tense. This means you should make statements like "The population will be. . ." or "I will define . . ." In the methods section you should describe the information on who is going to be in your study, how you will interact with them, and how your study will be completed in a step-by-step fashion.

Participants

In this subsection of the methods section you need to define the population to which you will be able to make generalizations. This description of your population should be followed by an explanation of the specific sampling technique you will be employing. In addition you should indicate the size of the sample you want to collect if you did carry out the proposed study. *[10 points possible for your participants section]*

Instrumentation

In this subsection you should specify the instruments, questionnaires, and/or tests you plan to use in your research. If you are using a published instrument, be sure to give a general description, reference it, and include information about its reliability and validity. If you are using a new instrument or questionnaire, be sure to include sample items or the entire instrument in an appendix to your proposal.

Design and Procedures

In this subsection you should indicate the type of research design you plan to use for your study (i.e. pretest-posttest control group design, mail survey, unobtrusive research with content analysis, etc.). You should next provide complete operational definitions for each of your variables.

The main focus of the remainder of this subsection of your proposal should be a description of the specific procedures you plan to follow if you conduct the study. You should be sequential and very specific about how each step of the research is to be accomplished. An explanation of the time factors including a time line of when you are going to select your sample, when you are going to administer the questionnaire or treatment, how long you expect everything to take, etc. A clarification of the unique features of the research you are proposing is also very important to include here. *[30 points possible for your instrumentation and procedures sections combined]*

Data Analysis

In this section you need to explain the type of statistical analysis you are going to use to test your hypothesis. Since I do not expect you to be well versed in statistics, I will give you a sentence or two to include in this section verbatim. Please contact me for the description of your data analysis sentence(s). *[5 points possible for your data analysis section]*

Limitations

In this section I want you to analyze and critique your own proposal. You should point out the problems you see in your proposal and explain why these limitations can not be dealt with adequately. *[10 points possible for your limitations section]*

References

The final required section of your proposal should be your references. You need to include the complete reference to every article and instrument that you sited anywhere in your proposal. *[5 points possible for your references section]*

Appendices

This is an optional section. You should use an appendix to place instruments you will be using or for documents you refer to in the body of your proposal.

Your overall organization, spelling, grammar, and general writing skills are important for this assignment. A total of 20 points will be assigned based on these writing mechanics for your grade on the proposal.

Study Guide for Examination #1

Babbie (2008) - Chapter 1 (Human Inquiry and Science)

Objectives

1. Define and illustrate agreement reality and experiential reality.
2. Differentiate prediction from understanding.
3. Define and illustrate the premodern, the modern and the postmodern approaches to reality.
4. Define and illustrate causal reasoning from probabalistic reasoning.
5. Describe what is meant by science being logico-empirical.
6. Differentiate independent and dependent variables by definition and example, and show how they contribute to understanding causality.
7. Define and contrast an ideographic explanation with a nomothetic explanation.
8. Define and indicate how inductive theory differs from deductive theory.
9. Define and give examples of quantitative data and qualitative data.

Key Terms

theory	variables	attribute	induction
deduction	idiographic	nomothetic	dependent variable
independent variable	applied research	pure (basic) research	

Babbie (2008) - Chapter 2 (Paradigms, Theory, & Research)

Objectives

1. List the three functions of theory for research.
2. Define paradigm and describe its role in science.
3. Differentiate macro-level theory from micro-level theory.
4. Discuss the link between theory and research.
5. Show the role of theory, operationalization, and observation in the traditional model of science.

Key Terms

hypothesis	null hypothesis	hypothesis testing	paradigm
macrotheory	microtheory	operationalization	operational definition

Babbie (2008) - Chapter 15 (Reading and Writing Social Research)

Objectives

1. Provide advice for reading journal articles.
2. Identify questions to ask when assessing research reports.
3. Identify the functions of scientific reporting
4. Explain how search engines can be used to search web sites.
5. Explain the role of reviewing the literature in research reports.
6. Provide advice for avoiding plagiarism.

Key Terms

abstract	discussion section	hypothesis
introduction section	literature review	method section
prediction	results section	theory

Babbie (2005) - Chapter 3 (Ethics and Politics of Social Research)

Objectives

1. Discuss why ethical issues are frequently not apparent to the researcher.
2. Describe and illustrate the ethical issues involved in: voluntary participation, no harm to subjects, anonymity and confidentiality, the researcher's identity, and analysis and reporting.
3. Describe the role of the Institutional Review Boards (IRB).
4. Summarize the link between objectivity and ideology.
5. Compare the positions on the issue that science can (or cannot) and should (or should not) be separated from politics.
6. Illustrate how political issues exist in some types of research.

Key Terms

informed consent	volunteer bias	anonymity	confidentiality
deception	debriefing	code of ethics	IRB
Nuremberg Code			

Babbie (2005) - Chapter 4 (Research Design)

Objectives

1. Identify the two major tasks of research design.
2. Define and illustrate the three basic purposes of research.
3. List and illustrate the three prerequisites for establishing causality in nomothetic explanations.
4. Define units of analysis and identify and illustrate each of the basic types.
5. Compare cross-sectional and longitudinal studies in terms of the advantages and weaknesses of each.
6. Differentiate among the three types of longitudinal studies by definition and example.

Key Terms

correlation	spurious relationship	unit of analysis	social artifacts
cross-sectional studies	longitudinal studies	trend studies	cohort studies
panel studies	ecological fallacy	reductionism	

Babbie (2005) - Chapter 5 (Conceptualization, Operationalization, & Measurement)

Objectives

1. Define measurement and differentiate it from observation.
2. Distinguish conceptualization from operationalization.
3. Differentiate the following four levels of measurement and give an example of each: nominal, ordinal, interval, and ratio.
4. Explain why it is important to know the level of measurement for the variables in a study.
5. Explain when single or multiple indicators should be used to reflect a concept.
6. Define reliability and list strategies for improving the reliability of measures.
7. Define validity and compare the four types of validity (face, content, criterion-related, and construct).
8. Describe the tension between reliability and validity.

Key Terms

conceptualization	indicator	dimension		nominal measures
ordinal measures	interval measures	ratio measures		reliability
test-retest reliability	internal consistency		alpha coefficient	validity
face validity	content validity	construct validity		
criterion-related validity	concurrent validity	predictive validity		

Babbie (2005) - Chapter 6 (Indexes, Scales, and Typologies)

Objectives

1. List the reasons why composite measures are frequently used in research.
2. Differentiate index from scale by definition and example.
3. List the steps involved in creating an index.
4. Define and illustrate face validity, unidimensionality, and variance as criteria for selecting items.
5. Describe how items can be scored in index construction.
6. Describe several strategies for handling missing data in index construction.
7. Compare the rationale and application of item analysis and external validation as strategies for validating an index.
8. Describe the logic and procedures of Likert scaling, the semantic differential, and Guttman scaling.
9. Explain and illustrate how typologies are used in social science research.

Key Terms

scale	index	item analysis	external validation
Likert scale	semantic differential	Guttman scaling	
Bogardus Social Distance Scale		typology	

Study Guide for Examination #2

Babbie (2005) - Chapter 8 (Experiments)

Objectives

1. Describe and illustrate with examples the three major pairs of components in the classical experiment.
2. Give an example of the double-blind experiment and indicate why such a design would be used.
3. Contrast probability sampling, randomization, and matching.
4. Note the features that the preexperimental designs have in common, and define and develop examples of each of the following three designs: one-shot case study, one-group pretest-posttest design, and static-group comparison.
5. Explain how the following factors may threaten internal validity: history, maturation, testing, instrumentation, statistical regression, selection biases, experimental mortality, and demoralization.
6. Show how the true experiment designs handle each of these problems of internal invalidity.
7. Compare the following true experimental designs: pretest-posttest control group design, Solomon four-group design, and posttest-only control group design.
8. Examine the strengths and weaknesses of the experimental method.

Key Terms

control group	dependent variable	demoralization
double-blind experiment	experimental group	experimental mortality
external validity	Hawthorne effect	history
independent variable	instrumentation	internal validity
matching	maturation	natural experiment
one-shot case study	one-group pretest-posttest design	static group comparison
pretest sensitization effect	pretest-posttest control group design	pretesting
posttesting	posttest-only control group design	placebo
preexperimental designs	randomization	selection biases
Solomon four-group design	statistical regression	testing effect

Babbie (2005) - Chapter 7 (The Logic of Sampling)

Objectives

1. Define sampling.
2. Describe and illustrate each of the following types of nonprobability sampling: reliance on available subject sampling, purposive (judgmental) sampling, quota sampling, and snowball sampling.
3. Describe the logic of probability sampling, and include heterogeneity and representativeness in your response.
4. List two advantages of probability sampling over nonprobability sampling.
5. Define an EPSEM sample.
6. Define each of the following terms and explain its role in probability sampling: element, population, sampling frame, and parameter.
7. Differentiate a parameter from a statistic.
8. Define sampling error and show how confidence levels and confidence intervals are used in interpreting sampling errors.
9. Restate the cautions regarding making generalizations from sampling frames to populations.
10. Summarize the steps in using a table of random numbers.
11. Describe systematic sampling and employ the concepts of sampling interval, sampling ratio, and periodicity in the description.
12. Identify the major advantage of multistage cluster sampling and describe how this procedure is executed.
13. Explain why a researcher might use probability proportionate to size sampling and explain the logic behind this strategy.

Key Terms

available subjects sampling	confidence interval	confidence level
element	heterogeneity	homogeneity
multistage cluster sampling	nonprobability sampling	parameter
periodicity	population	PPS
probability sampling	quota sampling	snowball sampling
purposive (judgmental) sampling	random selection	representativeness

sample	sampling	sampling error
sampling frame	simple random sampling	statistic
stratified sampling	systematic sampling	

Babbie (2005) - Chapter 9 (Survey Research)

Objectives

1. Differentiate questions from statements by definition and example.
2. Outline the conditions under which open-ended and closed-ended questions are used.
3. List and illustrate several guidelines for asking effective questions.
4. Explain why social desirability is a problem in asking questions.
5. List the guidelines for good questionnaire format.
6. Describe the role of contingency questions and matrix questions and list the principles for their use.
7. Explain why the order in which questions are asked is important and describe how this principle is differentially applied in questionnaires and interviews.
8. List three principles for providing instructions for respondents of surveys.
9. List three methods for distributing self-administered questionnaires.
10. List three principles for mail distribution and return of questionnaires.
11. Present an argument for monitoring returns, and show how this can be done with the return rate graph.
12. List three principles regarding follow-up mailings.
13. State the response rates that Babbie considers adequate, good, and very good.
14. State the general rules for successful interviewing and the guidelines for training interviewers.
15. Show how computer-assisted telephone interviewing overcomes some of the weaknesses of the telephone survey.
16. Describe several variations for using computers for administering self-administered questionnaires.
17. Compare and contrast face to face interviews, telephone interviews, and self administered questionnaires in terms of time, expense, response rate, advantages, and disadvantages.
18. Describe the advantages of online polling and offer some advice for successful online polling.
19. Give two examples of secondary analysis and/or data archives, and summarize the advantages and disadvantages of this approach.

Key Terms

bias	data archive	closed ended question
contingency question	double-barreled question	interview
matrix question	open-ended question	probe
questionnaire	random-digit dialing	respondent
response rate	secondary analysis	self-mailing questionnaire
self-administered questionnaire	survey	telephone poll
social desirability	computer-assisted telephone interviewing (CATI)	

Study Guide for Examination #3

Babbie (2005) - Chapter 10 Qualitative Field Research

Objectives

1. Compare the following four roles that field researchers play and give examples of each: complete participation, participant-as-observer, observer-as-participant, and complete observer.
2. Define qualitative field research and compare it with other methods.
3. Provide advice on each of the following steps in preparing for the field: review of the relevant literature, use of informants, and establishing initial contacts.
4. Provide advice for asking questions in qualitative field research, and compare a field research interview with normal conversation.
5. Describe the stages in a complete interviewing process: thematizing, designing, interviewing, transcribing, analyzing, verifying, and reporting.
6. Define focus group and list advantages and disadvantages of the technique.
7. Provide advice for recording observations in qualitative field research.

8. Address the strengths and weaknesses of field research, being certain to compare field research with experiments and surveys in terms of validity, reliability, and generalizability.

Key Terms

case study	complete observer	complete participant
field research	focus groups	informant
observer-as-participant	participant-as-observer	qualitative interview
qualitative research		

Babbie (2005) - Chapter 11 Unobtrusive Research

Objectives

1. Describe, compare, and contrast the three unobtrusive research designs: content analysis, analysis of existing statistics, and historical/comparative analysis.
2. Give examples of artifacts that content analysis might study.
3. Differentiate manifest content from latent content by definition and example.
4. Describe the process of developing code categories plus counting and record keeping in content analysis.
5. Outline the strengths and weaknesses of content analysis.
6. Explain why reliability and validity may be problems with existing statistics and present strategies for resolving both types of concerns.
7. List possible sources of existing statistics.
8. List possible sources of data for historical/comparative analyses.

Key Terms

analysis of existing statistics	coding	content analysis
corroboration	data archive	hermeneutics
historical/comparative analysis	latent content	manifest content
unobtrusive measures		

Babbie (2005) - Chapter 12 Evaluation Research

Objectives

1. Identify the purposes of evaluation research.
2. Identify the factors influencing the growth of evaluation research.
3. Describe why it is important to identify the purpose of an intervention.
4. Define and illustrate the quasi-experimental designs: time-series designs, nonequivalent control group designs, multiple time-series designs.
5. Discuss why evaluation research is particularly subject to problems in the execution of the research.
6. Summarize the reasons why the implications of evaluation research are not always put into practice.
7. Define single subjects designs and explain the advantages and disadvantages of using them in terms of feasibility, ethics, and generalizability.

Key Terms

ABA design	ABAB design	applied research
baseline phase	evaluation research	intervention phase
multiple baseline design	reversal strategy	social indicators
quasi-experimental designs	nonequivalent control groups designs	time-series designs
multiple time-series designs		