Empirical Inquiry in Human Development
HDFS 312W
Summer 2009 – Session II Syllabus

Instructors:
Stephanie Anzman, M.S.
Phone: 814-863-0607
Email: sanzman@psu.edu
Office hours: By appointment
Location: 129 Noll Laboratory

Heather King, M.S.
Phone: 814-865-7552
Email: hking@psu.edu
Office hours: By appointment
Location: 15C North Henderson

Class Meetings: Monday through Friday, 11:10 a.m. - 12:25 p.m. in 205 South Henderson

Course Text:
Cozby, P.C. (2009). *Methods in Behavioral Research* (10th ed.). New York, N.Y.: McGraw-Hill.

Course Website: www.angel.psu.edu
Certain course materials will be posted on Angel. Students will be expected to check Angel for course announcements. It is advised that students set up their Angel accounts, so that Angel email is forwarded to the email account that they check regularly.

Course Objectives:
The main objectives of this course are to provide students with the following skills:

- *Research Question and Design:* develop the skills to think like a researcher. Students will work on the generation of original thought, as opposed to memorization. Students will integrate course information and produce new ideas related to research in human development.
- *Evaluation of Research:* become a critical consumer of information. Students will differentiate between research literature and the popular press. Students will learn to evaluate the strengths and limitations of research studies and will be able to apply research findings to real-world contexts.
- *Writing:* become a better (scientific) writer. Students will progress from the writing level at which they start and achieve improved writing skills, including the clear communication of ideas.

Course Goals:

- Formulate a scientific hypothesis.
- Design and propose a well-organized research project that tests an original hypothesis.
- Interpret basic statistics.
- Evaluate the logical and empirical support for research questions.
- Evaluate the adequacy of sampling for the validity of study conclusions.
- Evaluate the adequacy of study design for the validity of study conclusions.
- Evaluate the adequacy of measurement for the validity of study conclusions.
- Evaluate the match between reported results and the validity of study conclusions.
- Find appropriate research literature to support research questions.
- Apply feedback to improve writing.

Grades: Point values for the assignments and exams are as follows:

In-class activities (7 random activities, drop the lowest)	**30 points**
Quizzes	**20 points**
Exams (midterm and final – 100 points each)	**200 points**
Writing Assignments	
Assignment 1	25 points
Assignment 2	125 points
Assignment 3	50 points
Assignment 4	150 points
Total for Writing Assignments	**350 points**
Total points possible:	**600 points**

The final grade will be determined as follows:

A (>93%): 558 to 600 points
A- (90%-92%): 540 to 557 points
B+ (87%-89%): 522 to 539 points
B (83%-86%): 498 to 521 points
B- (80%-82%): 480 to 497 points
C+ (77%-79%): 462 to 479 points
C (70%-76%): 420 to 461 points
D (60%-69%): 360 to 419 points
F (<59%): below 360 points

Extra credit will not be offered. All points will come from the assessments above. Students are invited to discuss concerns about grades during the semester with the instructors.

In-class activities. In-class activities will be used to monitor attendance. Seven activities will be given on random class days. Students will receive credit for six of these 5-point activities. Thus, students may drop one of the seven activities. There will be no opportunities to make up the in-class activities.

Quizzes. There will be two, 10-point quizzes throughout the semester. Quizzes will be announced and will be based on readings or material covered in class. No make-up quizzes will be allowed, except in the case of a legitimate emergency (see make-up policy described under Examinations below). In these cases, students wishing to make up the quiz will meet with the instructors and complete an oral quiz.

Examinations. There will be two in-class examinations based on readings and lecture material. The first exam will be a midterm halfway through the semester. The second exam will be a final exam during the last week of class. Each exam will be worth 100 points.

NO MAKE-UP EXAMS will be given, unless arrangements are made in advance with the instructors AND documentation of one of the following is provided: physical illness or injury, participation in a PSU-sponsored extramural event, or family emergency. Under these circumstances, a make-up exam will be given. The make-up exam will be a different version from that taken by the rest of the class.

Readings. Students should read the assigned readings before coming to class that day. Readings have the potential to appear in quizzes, examinations, and in-class activities.

Writing Assignments. All writing assignments must be double-spaced, typed in Times New Roman size 12 font with 1-inch page margins, and written in APA style. Students must hand in a hard copy of each assignment and also must submit an electronic copy to turnitin. Students will be taught how to do this during class. Originality reports from turnitin must be attached to each assignment when it is turned in. Additional writing guidelines will be provided in class, as well as more specific information on each assignment and detailed grading rubrics.

Assignment 1: Select a Research Topic (1-2 pages)
Students will choose a research topic from a list of topics provided by the instructors. In this paper, students will discuss: why they chose their topic, why it is important, and how learning about this topic could potentially help them in their future career. Students will then formulate a research question related to this topic and state their hypothesis. One of the main focuses in grading this assignment will be to assess students' writing style: What is the student's initial writing level, and what are areas of improvement to focus on throughout the semester?

Assignment 2: Review of the Literature (4-5 pages) *with revision*
The first part of Assignment 2 will be students' revised Assignment 1. To get all points on this section, students must revise according to instructor comments. (Students will turn in their graded Assignment 1 with instructor comments along with this assignment.) In the rest of Assignment 2, students will summarize and integrate three articles on their selected research topic. Two of the articles will be selected by the instructors, and the students will choose a third relevant peer-reviewed empirical article using search tools learned during a lab session.

Assignment 3: Type of Research Study (2 pages)
Students will write about two potential ways that they could study their topic empirically, based on information covered in class about different types of research designs and different types of measures. Students will discuss the strengths and weaknesses of each approach as it pertains to their topic. Students will engage in an in-class peer-review of drafts of Assignment 3 prior to turning them in.

Assignment 4: Final Research Proposal (5-7 pages) *with revisions*
This assignment will include aspects of all previous assignments. Many of the points for this assignment will be based on how well students revise and improve their original versions of Assignments 1, 2, and 3 based on instructor comments (and peer-review comments for Assignment 3). In revising assignments, students should also shorten them, taking out unnecessary details and meeting page limits below. Overall, the final paper will consist of:

1) Introduce topic: Assignment 1, revised according to most recent comments (about 1 p.)
2) Review of the literature: revised Assignment 2 (trim to 2 p.)
3) Method: Study Design: revised Assignment 3 (about 2 p.) *This will be cut down so that students only talk about one type of study*, the one they are actually proposing in this research proposal. Students will take the strengths/weaknesses of the different approaches into account and pick one design and one type of measure. Students will add a brief description about sampling/participants, as well at the beginning of this section.
4) Conclusion (< 1 p.): Students will discuss what this research will contribute to the literature and to the "real world."

Deadlines: All writing assignments must be turned in by the start of class the day they are due. Assignments will be considered late if not turned in at this time, and assignments will also be considered late if they are not uploaded to turnitin at this time. Students will turn in their assignments, along with turnitin originality reports, which must match the version of the assignment that they turn in.

If students turn in assignments late, the followed penalties will be applied:
1st day late (Beginning after start of class through the end of the day the paper is due): -10 points
2nd day late: -20 points
3rd day late: -30 points (or -25 if it is Assignment 1)
4th day late and on: -All points (a zero will be given)

Our Expectations for Students. Students taking this course are expected to read and respect the following class guidelines and rules. It is your responsibility to be familiar with and adhere to these guidelines:

- Students are expected to respect the instructors.
- Students must make appointments with us ahead of time. Please give us sufficient notice if you would like to meet, so that we can arrange our schedule.
- Please use formal writing and language in all emails to us (this means complete sentences, correct spelling and grammar; no "IM language": i.e. :-), TTYL!). In addition, we do not guarantee response to late night or weekend emails until the following "business" day.
- Students who are not in class the day that tests or papers are returned are expected to contact the instructors to pick up the paper or go over the test; we will not carry around papers or exams once they have been returned to the rest of the class.
- Cell phones are to be turned off at the beginning of each class. On test days cell phones, electronic devices (e.g. PDAs, laptops, mp3 players, etc.), and hats are not permitted.
- You are expected to actively participate in class. This means taking notes, participating in discussions, and responding to questions. Please do not read non-course related material during class or distract other students in any other way.
- Students are encouraged to meet with us at least three days before assignments are due. We will not read or grade drafts of assignments before the assignment is due, but we are happy to answer questions about the assignment if help is needed. We will be able to answer minor questions about the assignment via e-mail until 5:00pm on the weekday before an assignment is due.

Expectations for Instructors. Just as we have certain expectations for you, we hope you have expectations for us. As your instructors, we will adhere to the following guidelines:

- You will be treated with respect and professionalism.
- We will come to class prepared and make every effort to make each class a valuable learning experience.
- We will be accessible to you. We are always happy and willing to meet with any student, given our availability.

- Students should feel comfortable making appointments with us to go over exam material or to prepare for exams and are welcome to schedule an appointment with us for help with any writing assignment. Students are invited to discuss concerns about grades during the semester with the instructors.
- We will return all graded material in a timely manner.
- Grading criteria will be provided ahead of time for each writing assignment in order to help students organize their assignments and writing.

HDFS Departmental Policy on Student Responsibilities and Classroom Conduct

1. Students are responsible for attending all classes, taking notes, and obtaining other materials provided by the instructor, taking tests, and completing assignments as scheduled by the instructor.
    a. Requests for taking exams or submitting assignments after the due dates require documentation of events such as illness, family emergency, or a university sanctioned activity.
    b. Conflicts with dates on which examinations or assignments are scheduled must be discussed with the instructor or TA prior to the date of the exam or assignment.
2. Students are responsible for keeping track of changes in the course syllabus made by the instructor throughout the semester.
3. Students are responsible for monitoring their grades.
4. Students must contact the instructor as soon as possible if they anticipate missing multiple classes due to events such as chronic illnesses, travel related to team sports, or other university activities. The instructor will determine the minimal attendance and participation required in order to meet course responsibilities.
5. If extra credit assignments are offered, they must be offered to all students and should not be used to boost the grade of an individual student.
6. Behaviors that disrupt other students' learning are not acceptable (e.g., arriving consistently late for class; cell phone use, reading non-course related materials, or social conversation during class) and will be addressed by the instructor.

University Statement of Academic Integrity (Policy 49-20)

Academic integrity is the pursuit of scholarly activity in an open, honest, and responsible manner. Academic integrity is a basic guiding principle for all academic activity at The Pennsylvania State University, and all members of the University community are expected to act in accordance with this principle. Consistent with this expectation, the University's Code of Conduct states that all students should act with personal integrity, respect other students' dignity, rights and property, and help create and maintain an environment in which all can succeed through the fruits of their efforts.

Academic integrity includes a commitment not to engage in or tolerate acts of falsification, misrepresentation, or deception. Such acts of dishonesty violate the fundamental ethical principles of the University community and compromise the worth of work completed by others.

Violations of Academic Integrity Policy

Violations of the University's Academic Integrity Policy include the following:
Cheating: using crib sheets of any kind, preprogrammed calculators or cell phones, use of notes during a closed book exam.
Copying on tests: looking at other students' exams, copying with a plan with another student, passing notes during exams; exchanging exams with another student.
Plagiarism: fabricating information or citations; copying from the Internet or submitting the work of others from journals, articles, and papers, or books; submitting other students' papers as one's own. Any material, regardless of length, that is the work of somebody else and who is not given explicit credit by citation, submitted as one's own, is plagiarized material.
Tampering with work: changing one's own or another student's work; tampering with work either as a prank or to sabotage another's work.
Acts of aiding and abetting: facilitating academically dishonest work by others; unauthorized collaboration on work; permitting another to copy from one's exam; writing a paper for another; inappropriately collaborating on home assignments or exams without permission or when prohibited.
Unauthorized possession: buying or stealing of exams or other materials; failing to return exams on file or reviewed in class; selling exams; photocopying exams; any possession of an exam without the instructor's permission.
Submitting previous work: submitting a paper, case study, lab report, or any assignment that had been submitted for credit in a prior class without the knowledge and permission of the instructor.
Ghosting or misrepresenting: taking a quiz or exam or performing a class assignment in place of another student; having another student do the same in one's place; signing in as present in class for another student or having another student do the same in one's place.
Altering exams: changing incorrect answers and seeking favorable grade changes when instructor returns graded exams for in-class review and then collects them; asserting that the instructor make a mistake in grade. Other forms include changing the letter and/or numerical grade on a test.
Computer theft: electronic theft of computer programs or other software, data, images, art, or text belonging to another.

Penn State Resources for Students

Undergraduate Writing Center 863-3240
http://www.psu.edu/dept/cew/writingcenter/UWC/index2.htm

Center for Adult Learners 865-3443
http://www.outreach.psu.edu/adult-learners/

Center for Counseling and Psychological Services 863-0395
http://www.sa.psu.edu/caps/

Office of Disability Services 863-1807
http://www.equity.psu.edu/ods

SECTION 1: INTRODUCTION TO RESEARCH METHODS

Date	Topic	Read before this class:
Weds, July 1	Introduction: syllabus and course overview; Goals of scientific research	
Thurs, July 2	Goals of scientific research; Research questions, hypotheses, and variables	Cozby p. 1-9; p. 16-23
Fri, July 3	**NO CLASS** – Independence Day Holiday	
Mon, July 6	Scientific writing workshop	Cozby p. 283-287; p. 309-312 *Bring draft of Assignment 1 to class today!*
Tues, July 7	APA style and plagiarism **Assignment 1 due**	Cozby p. 299-307; p. 61-62
Weds, July 8	Lab: library search for research articles **Meet in 112 Boucke today**	Cozby p. 23-33
Thurs, July 9	Anatomy of a research article	Cozby p. 33-35; read research articles (2) for Assignment 2 and bring to class
Fri, July 10	Research literature vs. popular press; Help session for Assignment 2	Readings will be provided *Bring draft of Assignment 2 to class today!*

SECTION 2: MEASUREMENT

Date	Topic	Read before class:
Mon, July 13	Operationalizing variables **Reading Quiz**	Cozby p. 66-68
Tues, July 14	Types of measures; Introduction to survey items	Cozby p. 169-171; p. 124-127 *Bring your text to class today!*
Weds, July 15	Items continued; Measurement scales **Assignment 2 due**	Cozby p. 101-103
Thurs, July 16	Reliability	Cozby p. 91-96
Fri, July 17	Construct validity in research and the "real" world	Cozby p. 96-99; additional readings will be provided
Mon, July 20	Sampling; External validity	Cozby p. 136, 142-44; 268-70
Tues, July 21	Exam review	*Bring your questions to class!*
Weds, July 22	**MIDTERM EXAM**	

SECTION 3: DESIGN

Date	Topic	Read before class:
Thurs, July 23	Experimental vs. observational designs - Three criteria for causality; internal validity	Cozby p. 73-78; p. 207-8 Also, review p. 8-9: Causality
Fri, July 24	More on non-experiments: Cross-sectional vs. longitudinal designs; qualitative research	Cozby p. 215-218; p. 107-108
Mon, July 27	*Guest lecture on longitudinal design: Frank Infurna*	Cozby p. 82-86
Tues, July 28	Peer review lab day: **Bring draft of Assignment 3 (two copies)**	*No reading. Make sure to prepare a draft of A3!*
Weds, July 29	*Guest lecture on experimental design: Michelle Blocklin, M.S.*	Cozby p. 148-156
Thurs, July 30	Ethics	Cozby p. 37-46 and skim to p. 56
Fri, July 31	Ethics continued **Assignment 3 due**	

SECTION 4: INTRODUCTORY STATISTICS

Date	Topic	Read before this class:
Mon, August 3	Interpreting research results; Descriptive statistics	Cozby p. 223-230, p. 337-340
Tues, August 4	Correlation **Reading Quiz**	Cozby p. 230-236
Weds, August 5	Lab: descriptive statistics and correlation **Meet in 112 Boucke today**	
Thurs, August 6	Inferential statistics (*t*-tests, *F*-tests, chi-square)	Cozby p. 244-254
Fri, August 7	Statistical significance; Type I and type II errors	Cozby p. 254-263
Mon, August 10	Lab: Inferential statistics **Meet in 112 Boucke today**	Cozby p. 263-264
Tues, August 11	Selecting appropriate statistical test; Exam review	Cozby p. 265-266 *Bring your questions to class!*
Weds, August 12	**FINAL EXAM**	

Assignment 4 due by 12:00 p.m. on Friday, August 14.