

## EMPIRICAL INQUIRY IN HUMAN DEVELOPMENT

### HDFS 312w

### Summer 2006 – Session I Syllabus

#### INSTRUCTORS:

SEAN BANKS, M.S.

**Office:** Marion Place; Suite 405  
135 E. Nittany Avenue (S. Pugh and Nittany)

**Phone:** 814.865.7552

**E-mail:** [srbanks@psu.edu](mailto:srbanks@psu.edu)

ALISON VENTURA, M.S.

**Office:** 130 Noll Laboratory

**Phone:** 814.865.5425

**E-mail:** [akv112@psu.edu](mailto:akv112@psu.edu)

**Office Hours:** Thursdays, 1:00 – 2:00pm

**Location:** 211 D South Henderson

**Office Hours:** Tuesdays, 4:00-5:00pm

**Location:** 211 D South Henderson

**Class Meetings:** Monday through Friday, 2:20 – 3:35pm S HENDERSON 205

#### Course Texts:

Brown, K. W., Cozby, P. C., Kee, D. W., & Worden, P. E. (1998). *Research methods in human development* (2<sup>nd</sup> ed.). Mountain View, CA: Mayfield Publishing Company.

Strunk, W., & White, E. B. (2000). *The elements of style* (4<sup>th</sup> ed.). Ithaca, NY: Longman Publishing.

**Course Website:** [www.angel.psu.edu](http://www.angel.psu.edu)

All course materials and information will be available on Angel. Students are expected to check Angel on a regular basis for updates or announcements.

#### Course Objectives:

The main purpose of this course is to help you become an informed and critical consumer of scientific research. Throughout the course, you will develop the critical thinking skills necessary to understand scientific inquiry in the field of Human Development. This course will serve as an introduction as to how the tools of the scientific method can be used to understand human behavior and developmental processes.

#### Course Goals:

- To introduce students to the concepts of empirical inquiry, variable conceptualization, samples and sampling, measurement and data analysis and interpretation.
- To teach students how to formulate research questions and hypotheses.
- To expose students to peer-reviewed research articles and foster their ability to comprehend, summarize, and critique the articles and the studies they represent.
- To improve students' writing skills, specifically in the areas of formal tone, scientific paper structure, grammar, organization and revising.
- To illustrate the purpose and structure of a research proposal and to have students produce their own research proposal.

**Grades.** Point values for the assignments, tests and quizzes are as follows:

Quizzes	<b>40 points</b>
Class Participation	<b>10 points</b>
Tests (midterm and final 100 points each)	<b>200 points</b>
Assignments:	
Assignment # 1	25 points
Assignment # 2	125 points
Assignment # 3	50 points
Assignment # 4	150 points
Total for Assignments:	<b>350 points</b>

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**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	

*Students are invited to discuss their concerns about their grades at any time during the semester with either instructor.*

**Extra Credit.** Extra credit *will not* be offered. All grade points will come from assignments, quizzes, class participation and exams. There will be no exceptions.

**Examinations.** There will be two in-class examinations based on readings and lecture material. This will essentially be a mid-tem and final exam, although the final exam will not be a comprehensive final.

**NO MAKE-UP EXAMS WILL BE GIVEN! NO EXCEPTIONS,** unless permission is given **PRIOR** to the exam. In other words, make-up examinations will not be administered unless arrangements have been made in advance. The student must provide **written proof** of physical illness or injury, participation in a PSU-sponsored extra-mural event, a death of a family member or a religious holiday.

**In-Class Quizzes.** In-class quizzes will be *unannounced* and based on readings and/or lecture material for that day. Absolutely no make-up in-class quizzes will be allowed. However, you may drop your lowest quiz grade at the end of the semester.

**Readings.** Readings are assigned to correspond with each day's lecture. Students are expected to complete each day's assigned readings *before* class.

## **Writing Assignments.**

### **Assignment # 1: Research Problem and Questions**

For this assignment, you will choose a topic of interest for your ultimate research proposal. You will discuss what you already know about this topic from past courses or from personal, work or research experiences. Then, you will formulate at least 5 research questions. You will pick one question as your focus, and provide rationale as to why this is an interesting and important question.

### **Assignment # 2: Literature Review of Three Articles**

This assignment consists of a review of three research articles related to the topic and research question you picked in assignment # 1. It will also consist of a brief integration of these three articles and an overall summary your review of the literature.

### **Assignment # 3: Research Proposal Methods Section**

With a research topic picked out and a literature review done, this third assignment will focus on preparing the methods section for your research proposal. You will provide a statement of your research question, hypotheses and any underlying theory or previous research that has lead you to these questions and hypotheses. Then, you will propose the plan for the type of study you will conduct to answer your research question.

### **Assignment # 4: Final Research Proposal**

The final assignment will consist of the revised versions of assignments 1-3, integrated together into a final research proposal.

### **Assignment Reminders and Writing Guidelines:**

1. Use APA style for all assignments. Be sure to utilize the Strunk and White text, as well as the APA style handouts provided in class to ensure your writing adheres to the principles of formal, scientific writing.
2. Proofread your writing! Points will be deducted for spelling mistakes and grammatical errors.
3. Arrange your text in a straightforward and orderly manner. Keep your writing clear and concise; always stay within the allotted page limits. Also, use standard English: avoid jargon, colloquial or slang language, unnecessary abbreviations and contractions.
4. Make sure you are not *plagiarizing* someone else's work. Refer to the original source whenever you use someone else's words, ideas, data, or theories. We will have a lecture devoted to plagiarism to clarify any ambiguity.
5. Take advantage of the journal articles you read as models of how to write! Think of these models as you organize your own paper.
6. All papers should be typed, double-spaced, with 12pt font and margins of 1". Citations and the reference page must be in the standard APA format.

## **Our Expectations for Students**

Students taking HDFS 312w 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 their instructor.
- Students must make appointments with us ahead of time if they cannot attend office hours; 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 e-mails to us (this means complete sentences, correct spelling and grammar; no “IM language”: i.e. :-), TTYL!).
- Students who are not in class the day that tests or papers are returned are expected to contact their instructor 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 and paying attention to the instructor, 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.

## **Instructor Expectations**

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 outside of office hours.
- 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 welcome to discuss test or paper grades with their instructors up to one week after the test or paper is returned.
- 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.

## **Course Engagement.**

**Class Attendance** is **strongly** encouraged and attendance will be taken. If you miss a class it is your responsibility to contact a classmate for missed material – it does not matter why you missed class. In-class quizzes will be given without notice (either at the beginning or the end of class). Absolutely no make-ups will be given for quizzes (although, you may drop your lowest quiz grade). If you are unable to attend on a given day, make sure that you review what was covered in class with a classmate or with one of us during office hours. For quizzes, exams, and assignments you will be responsible for all lecture material (including class discussions) in addition to the readings.

**Meeting Deadlines.** Students are expected to complete all of their assignments and exams as scheduled. Late materials **WILL NOT BE ACCEPTED**. Medical excuses, a death in the family, or other PSU-endorsed exemptions (e.g., athletics) may be recognized as valid excuses only if accompanied by **adequate documentation** and, in some cases, a personal meeting with one of the instructors. When applicable and appropriate (e.g., PSU athletes' scheduled events or a planned absence for a funeral), students should notify and discuss an absence **in advance**.

## HDFS Departmental Policy on Student Responsibilities and Classroom Conduct

### **Student Responsibilities and 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.
- 7.

### **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.

If a student is considered as having violated the academic integrity policy, the instructor will inform the student and will meet with the student to discuss the allegation. The Undergraduate Professor-in-Charge is available to attend this meeting at the request of the instructor. At the end of the meeting, the instructor decides whether or not a violation has occurred. In the event of an instructor deciding that a violation has occurred, an Academic Integrity Form will be completed and signed by the instructor. The student can acknowledge the violation or contest it; in either case, the student also signs the Academic Integrity Form. A copy of the document will be given to the Professor-in-Charge in the Department, the College, and the University's Office of Judicial Affairs. If the student contests the sanction, further hearings will be held with the student to resolve the matter.

If an instructor recommends that a student be given a failing grade in a course, the student cannot drop the course. The instructor informs the Registrar's Office that a failing grade has been recommended for the student. If the student does drop the course before a final decision is made about sanctions, the failing grade will be reinstated by the Registrar's Office.

University policy allows considerable flexibility to instructors in the determination of sanctions for violations of academic dishonesty. There are two types of sanctions an instructor can recommend—academic and disciplinary. Academic sanctions range from a warning or reduced grade on a single assignment to the student's removal from his/her academic program following guidelines from the College's Academic Integrity Committee. Disciplinary sanctions, although recommended by the instructor or the College, are assigned only at the University level, by the Office of Judicial Affairs. Disciplinary sanctions can range from disciplinary warning to permanent expulsion. The student may also be assigned the XF grade, which is reserved for the most serious breaches of academic integrity.

There are different sanctioning guidelines for minor, moderate, or major offenses of academic integrity. Detailed information about procedures and sanctions can be found under Academic Integrity at the website of the Office of Judicial Affairs:  
<http://www.sa.psu.edu/ja/conduct.shtml>

**Penn State Resources for Students.**

Center for Excellence in Writing	863-3240 <a href="http://www.psu.edu/dept/cew/">http://www.psu.edu/dept/cew/</a>
Center for Adult Learners	863-3887 <a href="http://www.outreach.psu.edu/cals/">http://www.outreach.psu.edu/cals/</a>
Center for Counseling and Psychological Services	863-0395 <a href="http://sa.psu.edu/caps/">http://sa.psu.edu/caps/</a>
Office of Disability Services	863-1807 <a href="http://www.equity.psu.edu/ods">http://www.equity.psu.edu/ods</a>



## LECTURE TOPICS AND TENTATIVE SCHEDULE

\* If necessary, we may make changes to this schedule throughout the semester.

<b>Date</b>	<b>Topic</b>	<b>Main Points</b>	<b>Reading Material</b>
Monday May 15	Introduction to 312W	Syllabus & Course Overview	
Tuesday May 16	Ways of Knowing	Ways of Knowing Empirical Inquiry	<i>Ch 3, all</i>
	Goals of Scientific Research	The Cycle of Science Logical Positivism	<i>Ch 1, p. 4-5</i>
Wednesday May 17	Research Questions and Hypotheses	Definition of a Research Problem Definition of a Research Question Definition of a Hypothesis	<i>Elements of Style Chapters 1-2</i>
Thursday May 18	Variables: Conceptualization, Operationalization	Variables Operational Definitions Independent and Dependent Variables	<i>Ch 4, p. 46-48</i>  <i>Ch 10, p. 159-170</i>
Friday May 19	Writing Workshop	Grammar Common mistakes Problem words and phrases Colloquial vs. Formal Writing	
<b>MAY 22: 1<sup>st</sup> ASSIGNMENT DUE: Research Problem and Question</b>			
Monday May 22	APA Style Plagiarism	APA Style Citations Plagiarism	<i>Elements of Style Chapters 5-6</i>
Tuesday May 23	How to read a research article	Anatomy of a Research Article	<i>Review Ch 3, p. 42-45</i>
Wednesday May 24	Library Searches	MEET IN 215 EAST HENDERSON!!	<i>Review Ch 3: p. 33-42</i>
Thursday May 25	Data Collection Sampling Procedures	Populations and Samples Generalizability	<i>Ch 7: p. 98-106</i>
Friday May 26	Samples, Populations	Types of Sampling Procedures Non-Probability Sampling Probability Sampling	
Monday May 29	No Class – Memorial Day		

### **MAY 30: ARTICLES DUE: Turn in copies of articles for assignment # 2**

Tuesday May 30	Sampling Issues	Population considerations Sampling issues Problems with interviewer	<i>Ch10: p. 153-159 Ch 11: all</i>
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<b>Date</b>	<b>Topic</b>	<b>Main Points</b>	<b>Reading Material</b>
Wednesday May 31	Measurement Instruments	Ways of measuring (and pros & cons)	<i>Ch 4: p. 49-51</i> <i>Ch. 6: p. 75-84, 86-97</i>
Thursday June 1	More Measurement Constructing Research Questions	Scales Questions Construction Types of scales	<i>Ch. 4: p. 56-58</i> <i>Ch 7: p. 106-111</i>
Friday June 2	<b>MIDTERM EXAM</b>		
Monday June 5	Reliability	Definition Ways of Determining	<i>Ch 4: p. 51-55</i> <i>Ch 8: all</i>
Tuesday June 6	Validity	Definition Ways of Determining	<i>Ch 4: p. 51-55</i> <i>Ch 8: all</i>
Wednesday June 7	Threats to Validity	History Maturation Testing Instrumentation Statistical Regression Mortality (attrition) Selection Differences	<i>Ch 8: p. 119-124</i>
Thursday June 8	Threats to Validity	Continuation from Yesterday	
Friday June 9	Experimental Design	Definition of an Experiment Definition of a Quasi-Experiment Definition of Correlational/Survey Research	
<b>JUNE 12: 2<sup>nd</sup> ASSIGNMENT DUE: Literature Review of Four Articles</b>			
Monday June 12	Experimental Design	Types of Designs	<i>Ch 8: p. 126-134</i> <i>Table 8.1</i>
Tuesday June 13	Developmental Designs	Definition of a cohort Cross-sectional research Longitudinal Sequential Confounders	<i>Ch 9: all</i>
Wednesday June 14	Light & Fluffy Stats: Interpreting Research Results	Ways to show differences: Descriptive Stats: Inferential States	<i>Ch 14: 228-239</i>
Thursday June 15	Light & Fluffy Stats: Correlations	Types of Relationships Correlations Cause and Effect Third Variables Definitions of Factors Main Effects Interaction Effects	<i>Ch 5: all</i> <i>Ch15: 255-262</i> <i>Ch 12: 199-211</i>

<b>Date</b>	<b>Topic</b>	<b>Main Points</b>	<b>Reading Material</b>
Friday June 16	Light & Fluffy Stats: t-tests, F-tests, ANOVAs		<i>Ch 15: all</i>
Monday June 19	Extra day for spill-over of Light & Fluffy Stats		<i>Ch 14: 239-245</i>
Tuesday June 20	Light & Fluffy Stats: Significance tests Type I and II errors	Definitions of Type I and Type II errors Definitions of Significance Tests	
Wednesday June 21	Qualitative vs. Quantitative Research	Define Pros and Cons  Guest Lecture: Dr. Sherry Corneal	
Thursday June 22	Ethics	Psychological Risk Informed Consent IRB Nuremberg Trials Tuskegee Experiment	<i>Ch 2: all</i>
<b>JUNE 23: 3<sup>rd</sup> ASSIGNMENT DUE: Methods Section</b>			
Friday June 23	Wrap-up and Review		
<b>TBD: Final Exam (During Finals Week)</b>			
<b>TBD: 4<sup>th</sup> ASSIGNMENT DUE: Research Proposal</b>			