

**AFRICAN POPULATION STUDIES SHORT COURSE
LONGITUDINAL DATA MANAGEMENT & ANALYSIS ~ SOCY 7171
JULY 11-JULY 22, 2011**

Instructors:

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Location: All academic sessions will be held at:

1st Floor Computer Lab or Seminar Room
Institute of Behavioral Science
University of Colorado
1440 15th Street
Boulder, CO 80302

Course Funding

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Course Description:

This intensive short course provides skills in longitudinal data management and analysis, using data from the Agincourt Health and Demographic Surveillance System (AHDSS). The course includes lectures and exercises covering STATA, data management, and longitudinal analysis. In addition, students will be attend professional research presentations, and, ultimately, present the results of their own research projects.

Course Objectives and Outcomes:

The course objectives and expected student outcomes are as follows:

- 1) Basic competency using STATA (statistical software package)
- 2) Increased ability to manage and analyze longitudinal data
- 3) Familiarity with AHDSS data

- 4) Analysis of fertility and mortality trends over a 15 year period
- 5) Use of survival models to analyze longitudinal data
- 6) Completion of all course related exercises and assignments
- 7) Completion of a research project and presentation

Course Materials:

All course materials will be indefinitely accessible on the African Population Studies (APS) Short Course Website at http://www.colorado.edu/ibs/pop/short_courses.html. The login and password will be provided to you about two weeks before the course so you can begin studying course materials.

Assignments:

The assignments for this course include in-class exercises, an in-class presentation, and the completion of a research project. The in-class exercises will focus on implementing data management and analysis tools taught in course lectures. Students will work in topical groups to complete a small research project to include a presentation and a short paper.

Expectations:

Class Participation: Each day there will be a combination of lectures, labs and work-time. During these times students are expected to be present and to participate in discussions.

In-class Exercises: There will be in-class lab exercises that will cover what was taught about STATA and analyzing longitudinal data. Students will be expected to complete and submit each exercise to the appropriate course instructor.

Student Research Project: The research project will demonstrate your familiarity with the AHDSS training data and at least one of the longitudinal analysis techniques introduced during the course. Topics will be provided and students may elect to work on any one of the topics. Each person will be expected to work in collaboration with others in a group. Together as a group you will write a research paper and give a presentation on your project.

In-class Presentation: Each group will be required to give an in-class presentation of their research project on the last day of the course, July 22nd. The presentations will be limited to 15-20 minutes per group, and all members of the group will be expected to speak in equal time allotments. Further information on the presentation is provided below and will be discussed in class.

Written Report: In addition to the presentation, your group will submit a short research paper, 7-10 pages. Your group should plan to finish the analysis and have findings to present by Friday, July 22nd. We recommend finishing the research paper at the same time if possible; however, you will have until Friday, July 29th to submit the final paper to your group leader. Further information on the research report is provided below and will be discussed in class.

More about the Student Research Projects

Students may choose their own group, and, if students do not have a preference, they will be assigned to a work group. Persons wanting to work individually will need special approval by one of the faculty.

Group leaders will be available to direct and provide technical support for student research projects. They will help students select the appropriate analysis techniques and provide guidance for any data management required for the analysis.

Your group research topic and **specific research question should be formulated and submitted to your group leader by Monday, July 18th**.

Research Report Requirements

The written research report should be 7-10 pages and include the following sections.

Introduction and Abbreviated Literature Review – These sections should answer the “why” of your research questions. To do this it should provide background to your research topic and lay the foundation for the importance of your research question. The literature review should reference some of the literature provided for this course and may be limited to 2-5 articles. Students may choose to expand the literature review to other resources.

Research Question – Please consider the limited time frame for completing your research when formulating research questions. These questions should make clear the “who, what, where, and when” of your research. Please state your research question clearly and concisely.

Methods – This section should describe the use of at least one longitudinal analysis technique covered in class and discuss why the technique is appropriate for the particular research question. This section should reference the technical readings related to the lab exercises available on the course website and in your reading packets.

Analysis – Due to the short time frame of the course you are expected to complete at least a preliminary analysis of the data related to your questions. Research questions that require a good deal of data management will only be expected to provide preliminary results of the analysis and to discuss what the future analysis would entail. Please submit the Stata .do files with your report to help us evaluate your analysis section.

Discussion – This section should discuss the implications of the findings including any limitations of the results, especially those due to the nature of the AHDSS training data. This section can also include a discussion of future analysis suggested by your results.

Research Presentation Requirements

The goal of the research presentation is to give you and your collaborators an opportunity to present your research and to get feedback from faculty and other students. This presentation is expected to be 5 minutes per individual or 15-20 minutes for the group. Please focus your presentation on your research question, preliminary results, and the limitations of your findings. Your research presentation should provide a visual aid for the audience, either a power-point presentation (limit of 10-15 slides) or a handout for the audience to refer to during your presentation.

Course Schedule

Sunday, July 10th Orientation

- 10:30 – 2:00 Orientation and Lunch (meet at University Inn)
Bring Passport, DS-2019, and Visa for copying
- 6:00 – 7:30 Welcome Dinner: IBS Building

Monday, June 11th

- 8:30 – 10:15 Session 1: Introduction to the Course (Jani and Jill)
- 10:30 – 12:00 Session 2: Introduction to AHDSS Training Data (Casey)
- 12:00 – 1:15 Lunch Tour of UMC dining options (Jill)
- 1:15 – 3:00 Session 3: Introduction to STATA (Christie and Laura).
- 3:15 – 4:30 Session 4: Working session: STATA Exercises with AHDSS data
(Christie, Laura, Casey).

Tuesday, July 12th

- 8:30-10:15 Session 5: Working Session: More STATA Exercises with AHDSS
(Casey)
- 10:30 – 12:00 Session 6: Research Presentation: Jill Williams “The Odds of Progressing
from First to Second Birth in Agincourt South Africa”
- 1:15 – 2:00 Session 7: Logistic Regression and Infant Mortality (Jani)
- 2:30 – 4:30 Session 8: Working Session: A Logistic Regression Model and Adult
Mortality (Jani)

Wednesday, July 13th

- 8:30 – 10:15 Session 9: Discrete-Time Survival Models and Second Child (Jani)
- 10:30 – 12:00 Session 10: Working Session: A Discrete-Time Survival Model for First
Child (Jani)
- 1:15 – 2:30 Session 11 Working Session: Defining Household Characteristics (Casey)
- 2:30 – 4:30 Session 12: Research Presentation: Latifat Ibisomi “Fertility Transition in
Nigeria: Exploring the Role of Desired Number of Children”

5:30-7:00 Drinks and hors d'oeuvres at Jane Menken's house (walk).

Thursday, July 14th

8:30 – 10:15 Session 13: Continuous-Time Survival Models and Labor Migration (Jani)

10:30 – 12:00 Session 14: Working Session: A Cox Proportional Hazards Model for Labor Migration (Jani)

1:00 – 2:15 Session 15: Research Presentation: Stefan Leyk and Lori Hunter
“Migration and the Environment in South Africa”

2:30-4:30 Session 16: Working Session: Asset Index Construction (Laura)

Friday, July 15th

8:30 – 10:15 Session 17: Working Session: Measuring Educational Attainment over Time (Christie)

10:30 – 12:00 Session 18: Overviews of Research Topics with Options for Student Research Projects (Group Leaders)

1:30 – 2:15 Session 19 Group Formation and Discussion of Group Projects (Group Leaders and Faculty)

2:30 – 4:30 Session 20: Working Session: Group Projects and the AHDSS Data (Group Leaders)

4:30 Leave for Colorado Rockies Baseball Game

Saturday, July 16th

10:30 – 3:00 Trip to Rocky Mountain National Park & Brai lunch
Leave from Hotel

Sunday, July 17th

Free Day: See welcome packet for information on Church services and transportation to shopping malls

Monday, July 18th

8:30 – 10:15 Session 21: Mortality Rates and Life Tables (Jani)

- 10:30 – 12:00 Session 22: Working Session: Mortality Rates and Life Tables (Jani)
1:00 – 2:15 Session 23: Working Session: Group Projects (Group Leaders)
2:30– 3:30 Session 24: Working Session: Group Projects (Group Leaders)

Tuesday, July 19th

- 8:30 – 10:15 Session 25: Fertility Rates and Age Patterns of Fertility (Jani)
10:30 – 12:00 Session 26: Working Session: Fertility Rates and Age Patterns of Fertility (Jani)
1:00 – 2:15 Session 27: Working Session: Measuring Parity (Christie)
2:30 – 4:30 Session 28: Working Session: Group Projects (Group Leaders)
5:00 – 7:00 Dinner Pizza and Bowling at the UMC – bring socks!

Wednesday, July 20th

- 8:30 – 10:15 Session 29: Introduction to Qualitative Research Designs (Nicole Angotti)
10:30 – 12:00 Session 30: Qualitative Research Continued (Nicole Angotti)
12:00 – 1:15 Catered Lunch and Research Presentation (Sara Yeatman)
1:15 – 4:30 Session 31: Working Session: Group Projects (Group Leaders)

Thursday, July 21st

- 9:00 – 10:00 Session 32: Research Presentation: Sanyu Mojola “Linking Quantitative and Qualitative Research: HIV and Aging in Kenya”
10:15 – 12:00 Session 33: Working Session: Group Projects (Group Leaders)
1:15 – 5:30 Session 34: Working Session: Group Projects (Group Leaders)

Friday, July 22nd

- 9:00 – TBA Final Session: Participant presentations (Participants)
12:00 Catered Lunch
19:00 Closing Dinner: TBA