THE PENNSYLVANIA STATE UNIVERSITY–HARRISBURG
SCHOOL OF PUBLIC AFFAIRS

COURSE SYLLABUS
HADM/PAIM 503: RESEARCH METHODS
FALL SEMESTER 2011

Prerequisite: HADM/PAIM 8486: Applied Statistical Packages

Class Days and Hours: Wednesdays, 6:00 – 8:45PM

Classroom: 254E Olmsted
Instructor: Dr. Göktuğ Morçöl
Office: 160W Olmstead
Office Hours: 3:30 – 5:30 p.m.; Wednesdays & Thursdays
[Please email me to make an appointment.]

Telephone: 717-948-6126
Fax: 717-948-6320
E-Mail: gxm27@psu.edu

Weather-Related Class Cancellation Information: http://www.hbg.psu.edu/; or call 717-948-6000, 717-948-6029
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PURPOSE AND DESCRIPTION OF COURSE

This course is designed to facilitate students' learning of basic social science research concepts and procedures and statistical methods. Specific focus of the course is on the procedures and methods that are applicable in dealing with public administration and policy-related problems. The course will help students become informed consumers of the basic social science research reports and learn to conduct basic analyses and write reports.

More specifically, you will learn the following topics in this course. Please see the schedule for details.

1. Introductory Concepts and Procedures
   - Beginning a Research Project;
   - Protection of Human Subjects and Other Ethical Issues
   - Communicating Research Findings; Secondary Data Analysis

2. Designs, Modes of Observation, and Measurement
   - Designs for Explanation & Description
   - Hypothesis Formulation; Measuring Variables; Index Construction
   - Surveys & Questionnaire Design
   - Sampling

3. Statistical Analyses
   - Univariate Analyses
   - Significance Tests: t-Tests
   - Significance Tests: ANOVA
   - Contingency Tables; Nonparametric Tests
   - Measures of Association
   - Correlation and Regression Analysis
   - Multiple Regression Analysis

I will make class sessions as interactive as possible. It is essential that you come to the class prepared. You should read assigned chapters in the textbooks and practice with as many of the exercises in the textbooks as you can before coming to class. I will use selected exercises to illustrate the concepts covered in class sessions. It is essential that you ask your questions about topics covered in the class and class procedures.

Please be aware that basic knowledge of and skills in data management and statistical analysis are required for a successful completion of this course. I will use SPSS (Statistical Package for Social Scientists) for data management and analysis during the course and I expect that students have the SPSS knowledge and skills necessary to follow the instructions in the class and complete their assignments. The Applied Statistics Workshop (HADM/PADM 8486) is designed for those students who do not have the knowledge and skills. Those students who think that they have the necessary SPSS knowledge and skills may take the proficiency test on the date that will be announced. If they pass the test, they will not be required to take HADM/PADM 8486.
TEXTBOOKS, SOFTWARE, AND OTHER SOURCES

Required


Recommended


SPSS statistical software (version 18.0 or 19.0):

You may use the full version of SPSS installed on the computers in computer labs on the campus. You may also purchase:

- The full version (see the information at http://www.spss.com/spss/index.htm),
- The graduate student version (“SPPS Graduate Pack,” see the information at http://www.spss.com/gradpack), or
- The student version (look for it at http://www.pearsonhighered.com/ or at http://www.spss.com/vertical_markets/education/online.htm.)

The student version has some limitations, but it is sufficient for this course. The student version will be available at the Penn State Harrisburg bookstore. If you think that you will take more advanced courses on statistics, then I recommend purchasing either the graduate pack or the full version.

The following link may be useful if you wish to take advanced online courses on SPSS: http://www.spss.com/training/wbt/
Recommended Style Manual


You can find quick answers to your questions when using the APA style at the following links:

- Psychology with Style—A Hypertext Writing Guide: [http://www.uwsp.edu/psych/apa4b.htm](http://www.uwsp.edu/psych/apa4b.htm)
- The University of Illinois at Urbana Champaign, The Center for Writing Studies, APA Style Resources: [http://www.cws.illinois.edu/workshop/writers/citation/apa/](http://www.cws.illinois.edu/workshop/writers/citation/apa/)

Other Recommended Texts


ASSIGNMENTS, EVALUATION & OTHER COURSE POLICIES

Midterm Assignments

I will give two midterm assignments during the semester. I will post the specific questions and instructions for the assignments at the ANGEL website on the dates indicated in the schedule. Although my methods will depend on the specifics of each assignment, my general expectation in all assignments is that the knowledge content of the paper should be accurate, appropriate analyses should be conducted, and their results should be presented properly. Papers should be written clearly and coherently.

Class Project

You will also conduct a project and write a paper on a topic of your choice. These projects will include statistical analyses. You may use one of the statistical data sets listed under the section “Sources of Statistical Data” in this syllabus or conduct your own research. (See the options below.) It is essential that you develop thoughtful research questions, follow the research procedures you have learned in the class, and use data that are suitable for your research. You should also cite appropriate academic literature in your paper.

You should consult with me about your topic and the data sets and research methods you want to use in your project during the semester. I encourage you to submit an outline of your research project to me as early in the semester as possible and keep me informed about the progress you are making in your project.

I will evaluate class project papers on the quality and clarity of the research questions you asked, appropriateness and effectiveness of the research methods you used, and the accuracy and presentational style of the analyses you conducted. Papers should be written coherently and clearly. Class project papers will count for 50% of the total grade.

Options for the Class Project:

Option 1: Write an individual paper using secondary data

Under this option you will formulate a research question (or questions), a model, and hypotheses; conduct a literature search; use available secondary data for your analyses; and write a paper reporting the results. You may use the data sets available at the sources listed under “Sources of Statistical Data” below or any other source.

I encourage you to obtain my approval the appropriateness of your research questions, models, and data sources before you write your paper. If you do not consult with me during the semester, I cannot give you feedback, which might be helpful when writing your paper.
The length of your paper should be between 9 and 10 pages (double spaced, list of references and appendices not included). If you choose this option, you should cite at least five academic sources (refereed journal articles, books, or book chapters) in your paper.

If you conduct the research and write your paper individually, I will evaluate your paper for 50% of the total grade.

**Option 2: Conduct an empirical study in a group and write a paper individually**

Under this option you will form a group with other students to conduct an empirical study together and write papers individually. You will formulate a research question (or questions), a model, and hypotheses; conduct a literature search; design a research project; and collect data as a group. After collecting the data, each student will write his/her paper individually.

I encourage you to obtain my approval the appropriateness of your research questions, models, and data sources before you write your paper. If you do not consult with me during the semester, I cannot give you feedback, which might be helpful when writing your paper.

If you choose this option, each member of your group should cite at least eight academic sources (refereed journal articles, books, or book chapters) in his/her paper and the length of the paper should be between 13 and 15 pages (double spaced, list of references and appendices not included).

If you conduct your empirical study in a group, you will evaluate the other members of your group for their contributions to the project (literature search, Internet search, and empirical or archival studies). These evaluations will count toward 5% of each group member’s final grade; I will evaluate the individual papers of group members for a 45% of the final grade. (See the grade distribution below.)

You will be responsible for turning in you grades for other group members by the deadline for class projects. (See the schedule below). I will deduct 3% (3 points) from your total points for the final grade if you do not turn in your grades for other group members by this deadline.
A Checklist for Class Papers (Both Options)
(These are what I look for when I read your class paper.)

✓ Is relevant scholarly (academic, peer-reviewed) literature cited in the paper?

✓ Is the literature cited directly relevant to the topic? Are sources cited related to the (dependent and independent) variables used in the study?

✓ Are the variables named properly (e.g., “income” vs. “opinions on income distribution”)?

✓ Are hypotheses formulated properly (levels of measurement, etc.)?

✓ Are the analyses conducted consistent with the hypotheses (levels of measurement, categories of variables that are analyzed)?

✓ Are proper statistical analyses conducted (tests appropriate for levels of measurement; specific options like Pearson’s chi-square, linear-by-linear, etc.)

✓ Are the results of the tests used interpreted correctly (significance level, measures of association, etc.)?

✓ Are the tables interpreted correctly (percentages, etc.)?

✓ Are the results presented in the results section, without discussion or speculation?

✓ Are the results interpreted properly and their relevance are discussed in the discussion section?

✓ General/Stylistic Issues:

  ▪ Is the paper written clearly and coherently?
    
    o Are sentences clear? Are there any awkward, grammatically incorrect, or semantically problematic sentences?
    
    o Are paragraphs constructed properly?

  ▪ Are the materials used described, summarized, or discussed in their proper sections (introduction, methods, results, and discussion)?

  ▪ Are there any unnecessary or irrelevant sentences or paragraphs in the paper?

  ▪ Is a citation style (APA, Chicago, or MLA) used and used properly and consistently?
Are the references listed properly (according to the style guidelines adopted by the author: APA, Chicago, or MLA)?

Does the paper exceed the page limit?

✓ Note that plagiarism is also a problem. If you plagiarize, I will enforce Penn State’s academic integrity rules. Please see the section on “Academic Integrity” below.

**Information Sources for Class Project**

**Penn State Databases**

You may use the links at Penn State Library System’s web site (http://www.libraries.psu.edu/psul.html) to search for academic literature in your areas of interest and suitable secondary data for analyses. I recommend particularly the following links under “Find Databases” at this web site. However, please note that Penn State’s databases are revised and updated frequently; when you conduct your research some of the following may not be available and/or other relevant ones may have been added.

- Congress Collection (CQ)
- Congressional Research Service Reports (Gallerywatch)
- Congressional Universe Lexis/Nexis
- CQ Electronic Library
- CQ Researcher (contemporary issues)
- Data Sets for Research
- Ebsco Host Databases
- ERIC Databases (Educational Research Information Center)
- Gallerywatch (Federal Budget and Bill Tracking)
- Gallup Brain
- ICPSR (Interuniversity Consortium for Political and Social Research)
- Lexis Nexis Academic Universe
- Lexis Nexis Congressional Universe
- Lexis Nexis Statistical
- NewsBank Full Text Newspapers (America’s Newspapers)
- PolicyFile (Public Policy Research and Analysis)
- **ProQuest Direct**
- Social Science Abstracts
- Sociometrics Social Science Electronic Data Library (SSEDL)
- SourceOECD (Economic Policy)
- The Nation Digital Archive (1865- )
TRIS (Transportation Research Information Services)  
World Bank e-Library  
World Development Indicators  
World News Collection  
Worldwide Political Science Abstracts

Sources of Statistical Data

Penn State’s library web site at http://www.libraries.psu.edu/psul.html has links to data bases you may use for your class project. I recommend the following links under “Find Articles and Databases” and “Find Databases”:

- Data Sets for Research
- Lexis Nexis Statistical
- Sociometrics Social Science Electronic Data Library (SSEDL)
- SodaPop (Simple Online Data Archive for Population Studies) (http://sodapop.pop.psu.edu)

Other Data Sources

- Gateway to the Statistics of 100 Federal Agencies (http://www.fedstats.gov)
- U. S. Bureau of the Census (http://www.census.gov)
- The University of Michigan’s Statistical Resources on the Web (http://www.lib.umich.edu/govdocs/stcomp.html)
- The University of California at Berkeley’s Survey Documentation and Analysis Databases (http://csa.berkeley.edu).

Important Note about Submitting Assignment and Class Project Papers

You will submit your assignment and class project papers electronically through www.turnitin.com. I will not accept hard copy submissions of class project papers. The instructions for submitting papers through turnitin will be available at the course web site. I also will describe the details of electronic paper submissions through this web site in the class.
Policies Regarding the Protection of Human Subjects

If you are planning to conduct an empirical study that involves “human subjects” (interviews, surveys, or even secondary data analysis), you must read the policies and guidelines of the Penn State Office of the Vice President for Research (OVPR) at http://www.research.psu.edu/orp/areas/humans/policies/index.asp. Normally class projects are exempt from Institutional Review Board (IRB) reviews (see the policies on this at http://www.research.psu.edu/policies/research-protections/irb/irb-policy-1). However, you must keep in mind that you should not present or publish the findings/results of your class project outside the class any time in the future. If there is a possibility that you may use your results outside the class any time in the future, you should submit a proposal for IRB approval BEFORE YOU BEGIN THE EMPIRICAL PART OF YOUR PROJECT. If there is any need for clarification regarding the procedures you should follow in your project, you should consult with me and/or the experts at the University Park (814-865-1775).

Writing Style

In midterm assignments and class project, you must use an appropriate writing style consistently (APA, Turabian, or MLA). I will discuss style issues in the class. I expect that you are familiar with the basic style guidelines. If you have any questions about style, you should ask me. Note that I will not deduct points for mistakes you make when you use style guidelines (I will help to correct them), but I will deduct points if you do not give any citations or if you do not demonstrate that you at least tried to use a style systematically.

All assignment and project papers should be written clearly, coherently, and concisely. All papers must be paginated properly. Class project papers must be divided into appropriate sections, with clear section headings. (See the APA, Turabian, or MLA style guidelines for appropriate use of section headings.) Appendices must be used sparingly. When used, appendices must include only the material (tables, figures, lists, etc.) that cannot fit into the main body of the text and that are necessary to explain or illustrate one or more points made in the main text. The length of an appendix must be kept to a necessary minimum. The material in an appendix must be referred to and discussed in the main text. If the requirements mentioned in this paragraph are not met in a paper, I will deduct points from your grade.

Learning Center

You may seek help to improve your writing and math skills from the Penn State Harrisburg Learning Center. Here is the information provided by the Learning Center:

The Learning Center provides tutoring to support your writing in this class in either a face-to-face or virtual meeting. The writing tutors can help you develop your thesis and ideas, offer
objective feedback during the drafting process or on completed drafts, and explain MLA or APA documentation formats. Many of our writing handouts can be viewed on our ANGEL site, “Harrisburg Learning Center Resources,” and print copies are available in W-117. For more information on our services, visit the LC Web site at www.hbg.psu.edu/LearningCenter/. To make an appointment for tutoring in W-117, go to the online scheduling system at http://www.rich15.com/psuh. To inquire about a virtual appointment, email onlinewriting@psu.edu. You can also call 948-6475 or drop in to Olmsted W-117. These services are provided by the University to currently enrolled students. Please contact Kathy Brode (writing and learning support specialist), kbb3@psu.edu, or Janice Smith (LC coordinator), jes57@psu.edu, if you have any questions.

Grade Distribution

First midterm assignment 25%
Second midterm assignment 25%
Class project 50%
(If this is a group project (Option 2), a 5% of your grade will come from the arithmetic average of group members’ evaluations.)

I will use the following point–grade conversion table to assign your grades in the assignments and the paper and the final grade.

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Academic Integrity

I will enforce the academic integrity policies of the Pennsylvania State University. These policies can be found at the following website: http://php.scripts.psu.edu/dept/iit/hbg/academics/Policies/g8.php. The following items are particularly important. You should understand the meanings of these terms and avoid committing the defined acts:

**Plagiarism:** The fabrication of information and citations; submitting others’ work from professional journals, books, articles, papers, electronic sources of any kind, or the submission of any products from commercial research paper providers regardless of what rationales a vendor uses; submission of other students' papers or lab results or project reports and representing the work as one's own; fabricating, in part or total, submissions and citing them falsely. Note: Copying and pasting any materials from the World Wide Web is plagiarism.

**Acts of Aiding and Abetting:** Facilitating acts by others; unauthorized collaboration of work; permitting another to copy from an exam; permitting another to copy from a computer program; writing a paper for another; inappropriately collaborating on home assignment or exam without permission or when prohibited, etc.

**Submitting Previous Work:** Submitting a paper, case study, lab report or any assignment that had been submitted for credit in a prior, or concurrent, class without the knowledge and permission of the instructor(s).

**Failure to Cite Electronic Resources Regardless of the Source:** All electronic resources must be cited in every report, paper, project, portfolio, or any other document submitted for evaluation by an instructor.

**Email and ANGEL as Communication Media**

I will use email and ANGEL (Penn State’s course management system) to communicate with students and post announcements about the class. I expect that you have full access to email and ANGEL. Penn State makes email accounts available to all students and allows them automatic access to ANGEL once they sign up for a class. It is your responsibility to activate your Penn State email account and link it to your personal accounts (if you use separate personal accounts). I also expect that your accounts are set up properly to receive class-related email messages. For ANGEL related questions, you may contact Carol A. McQuiggan, Instructional Designer and e-Learning Support Specialist, Penn State Harrisburg, at (717)948-6542 or cam240@psu.edu.

When you send email messages to me, please be as specific as possible in the subject lines and main texts of your messages. Because I am concerned about computer viruses, I may not respond to messages that are not properly labeled in their subject lines or are not specific enough in their main texts.
Attendance Policy

Class attendance is crucial for a successful completion this course. If you have a legitimate excuse not to attend a class session, please inform me via email or telephone, preferably before the class session, or as soon as possible.

Inclement Weather and Class Cancellations

Penn State cancels classes when the weather conditions are not suitable for conducting classes as scheduled. You can check the Penn State Harrisburg website (http://www.hbg.psu.edu/) or call 717-948-6000 or 717-948-6029 to learn if one of our classes is cancelled. Occasionally, the college administration leaves the decision to conduct or not to conduct classes to the instructors. If that is the case, I may decide to conduct the class online via the ANGEL chat room. I will inform you of my decision via email. Please check your email messages frequently about class-related information.

Deferred Grades

You may request a deferment of your final grade for the course, only if you have a legitimate reason (e.g., personal or family emergencies, unusual personal hardships, or job-related obligations). I will determine if the reason is acceptable. See the Penn State deferred grade policies at http://www.psu.edu/dept/oue/aappm/G-3.html.

Students with Disabilities

The official Penn State policy is as follows:

The Pennsylvania State University encourages qualified people with disabilities to participate in its programs and activities and is committed to the policy that all people shall have equal access to programs, facilities, and admissions without regard to personal characteristics not related to ability, performance, or qualifications as determined by University policy or by state or federal authorities. If you anticipate needing any type of accommodation in this course or have questions about physical access, you may contact your instructor or Lynne Davies at (717) 948-6025 (Student Activities, Room: W117).
I. SCHEDULE, TOPICS, AND READING ASSIGNMENTS

[I may make changes in the following schedule to accommodate students’ needs or in the cases of emergencies and school closings. I will notify you of the changes as soon as it becomes feasible.]

Section I: Introductory Concepts and Procedures

August 24: Organizational Meeting: Introduction and Protection of Human Subjects and Other Ethical Issues
Required Reading: The Course Syllabus (ANGEL course website)
Guidelines for Writing Class Papers (ANGEL course website)

August 31: Beginning a Research Project; Protection of Human Subjects and Other Ethical Issues
Required Readings: O’Sullivan et al., Chapters 1 & 8
Course Notes: Beginning a Research Project (ANGEL course website)
Course Notes: Protection of Human Subjects (ANGEL course website)
Course Notes: Guidelines for Consent Form (ANGEL course website)
Course Notes: Template for Consent Form (ANGEL course website)
PSU ORP Notes: Ethics in Science (Vrana) (ANGEL course website)
PSU ORP Notes: Ethics of Human Participant Research (ANGEL course website)

Source for Additional Human Subjects Protection Readings: Penn State Senior Vice President for Research web site (http://www.research.psu.edu/orp/sari/)

September 7: Communicating Research Findings; Secondary Data Analysis
Required Readings: O’Sullivan et al., Chapters 9 & 15
Course Notes: Secondary Data Analysis (ANGEL course website)
Course Notes: Communicating Findings (ANGEL course website)
Course Notes: Outline for Research Papers (ANGEL course website)
The sample student paper at the ANGEL course website
### Section II: Designs, Modes of Observation, and Measurement

#### September 14:
**Required Readings:**
O’Sullivan et al., Chapters 2 & 3
Course Notes: Designs for Explanation and Description (ANGEL course website)

#### September 21:
**Required Readings:**
O’Sullivan et al., Chapters 4 & 10
Course Notes: Hypothesis Formulation Guidelines
Course Notes: Conceptualizing and Measuring variables (ANGEL course website)
Course Notes: Combining Indicators, Index Construction (ANGEL course website)

#### September 28:
**Required Readings:**
O’Sullivan et al., Chapters 6 & 7
Course Notes: Surveys—Contacting and Talking to Subjects (ANGEL course website)
Course Notes: Surveys—Questions and Questionnaires (ANGEL course website)

#### October 5:
**Required Readings:**
O’Sullivan et al., Chapters 6 & 7
Course Notes: Surveys—Contacting and Talking to Subjects (ANGEL course website)
Course Notes: Surveys—Questions and Questionnaires (ANGEL course website)

**FIRST MIDTERM ASSIGNMENT WILL BE POSTED AT THE ANGEL WEB SITE.**

#### October 12:
**Required Readings:**
O’Sullivan et al., Chapter 5
Sampling (ANGEL course website; download the document and bring it to class.)

### Section III: Statistical Analyses

#### October 19:
**Required Readings:**
O’Sullivan et al., Chapter 11
Course Notes: Univariate Analyses and Group Comparisons (ANGEL course website)

**FIRST MIDTERM ASSIGNMENT IS DUE.**
October 26: Significance Tests: t-Tests
Required Readings: O’Sullivan et al., Chapter 12
Course Notes: Statistical Tests (ANGEL course website)

November 2: Significance Tests: ANOVA
Required Readings: O’Sullivan et al., Chapter 13 (pp. 413-418 only)
Course Notes: Statistical Tests (ANGEL course website)

November 9: Contingency Tables; Nonparametric Tests
Required Readings: O’Sullivan et al., Chapters 12 (pp. 376-378 only) & 13 (pp. 396-401 only)
Course Notes: Statistical Tests (ANGEL course website)
SECOND MIDTERM ASSIGNMENT WILL BE POSTED AT THE ANGEL WEB SITE.

November 16: Measures of Association
Required Readings: O’Sullivan et al., Chapter 13 (pp. 401-413 only)
Course Notes: Statistical Tests (ANGEL course website)

November 23: THANKS GIVING BREAK. NO CLASS

November 30: Correlation and Regression Analysis
Required Readings: O’Sullivan et al., Chapter 14 (pp. 430-438 only)
Course Notes: Statistical Tests (ANGEL course website)
SECOND MIDTERM ASSIGNMENT IS DUE.

December 7: Multiple Regression Analysis
Required Readings: O’Sullivan et al., Chapter 14 (pp. 439-455 only)
Course Notes: Statistical Tests (ANGEL course website)

December 14:
CLASS PROJECT PAPER AND GRADES FOR GROUP MEMBERS (IF APPLICABLE) ARE DUE.