

University of Maryland, College Park
Department of Criminology and Criminal Justice
CCJS612: Applied Data Analysis in Criminal Justice
Fall 2001, Wednesday 7:00pm to 9:45pm
Instructor: Dr. Rachel Boba

Books: Harries. *Mapping Crime: Principle and Practice*
<http://www.ojp.usdoj.gov/nij/maps>

CD: Police Foundation, Crime Mapping Laboratory CD Summer 2001.

Class Objective: The objective of this class is to help you understand how crime analysis and crime mapping are practiced in everyday law enforcement. We will focus on discussing issues in crime analysis and crime mapping, critiquing current practices, and learning some of the technology that is used, specifically geographic information systems. This class will rely heavily on class discussion. All students are expected to participate and add to class discussions using knowledge from their own experiences, class readings, and/or additional readings.

Assignments: There are four assignments that are due throughout the semester. In addition to completing the assignment, each student will be asked to make a short presentation on what he/she has found. The assignments and their due dates are as follows:

- 1) *Annotated Bibliography.* Complete an annotated bibliography of at least five sources on a crime analysis/crime mapping topic. Topic to be approved by instructor by September 12th. Assignment due September 26th.
- 2) *Media Critique.* Critique two magazine, newspaper, or Internet articles that include crime statistics. You are to critique the article thoroughly about the information included and NOT included. Discuss how the average reader may misinterpret and possibly “jump to conclusions” about the information or lack there of. Assignment due October 17th.
- 3) *Web Site Critique.* Critique two web sites that contain law enforcement crime analysis and/or crime mapping information. List both the positive and negative components and make recommendations for improvement. Assignment due October 31st.
- 4) *ArcView GIS Exercises.* You will be performing the exercises from the “Getting to Know ArcView” book, all of which will be collected and graded (turn in a print out of the final product of each exercise).

Chapter 7	September 12 th
Chapter 26	September 26 th
Chapter 8	October 3 rd
Chapters 9-12	October 10 th
Chapters 13-16	October 17 th
Chapters 17-20	November 14 th
Chapters 22-24	November 28 th

Project: A separate handout will be given detailing the requirements for the project, which will be due on December 17th at 5pm. Each student will make a presentation of his/her findings on the last day of class.

**No dates have been specified below because the time a topic takes to cover depends on the students and the fact that we may have to work around unforeseen circumstances. I will be sure to give you ample notice of assigned reading. Also, late papers and homework assignments will be accepted with a grade penalty. This syllabus is subject to change.*

The following are the topics that will be covered:

- 1) Introduction to Crime Analysis
- 2) Types of Crime Analysis
- 3) Introduction to Crime Mapping
- 4) Introduction to Problem Solving
- 5) ArcView 3.2
- 6) Data Used in Law Enforcement
- 7) Geocoding
- 8) Statistics Used in Law Enforcement
- 9) Spatial Statistics
- 10) Tactical Crime Analysis
- 11) Time Series Analysis
- 12) Forecasting
- 13) Internet and Crime Analysis

University of Maryland, College Park
Department of Criminology and Criminal Justice
CCJS699E Special Criminological Problems:
Applied Data Analysis-Continuation of CCJS612
Spring 2002, Tuesday 7:00pm to 9:45pm
Instructor: Dr. Rachel Boba

Books: *Getting to Know ArcView GIS:* <http://www.esri.com/library/esripress/gtkav.html>

CD: Police Foundation, Crime Mapping Laboratory CD Fall 2001.

Class Objective: The object of this class is for students to obtain knowledge of working with secondary databases, geographic information systems, and other analytical software, as well as conducting spatial analysis and completing an entire secondary data, applied research project. This will be achieved through readings, class discussion, computer lab exercises, and individual effort. The class will be centered on each student's development of an applied research project using secondary data that includes a spatial analytical component. The goal is for each student to produce a paper that can be submitted to the Crime Mapping Research Center's or ASC's annual student paper competition or to an academic journal. The instructor will provide knowledge of data

analysis, spatial analysis, and the appropriate computer software in addition to providing guidance and advice to the students in their individual work. Each student will share their topics, analysis, findings, and struggles throughout the class, as well as give and receive feedback from fellow students.

Readings: In addition to the book and CD of resources noted above, each student will be responsible for obtaining and reading material appropriate for their project, which may include theoretical, practical, technical, and/or analytical/statistical material.

Topics and software: The following are the topics that will be covered include, but are not limited to: Databases, data cleaning, geocoding, working with qualitative geographic data, creating geographic data, practical research methodology, and spatial analysis and statistics. Software potentially used in this course includes: ArcView 3.2 and extensions (e.g., Spatial Analyst, 3D Analyst, Network analyst, StreetMap, Movement extension), SPSS, Excel, Access, ArcGIS 8.1 (and accompanying extensions)

Due dates: The following are the due dates for the course: 1) Dataset selected AND obtained, February 26th; 2) Literature review and research questions, March 12th; 3) Outline of analytical techniques, April 2nd; 4) Preliminary data analysis, April 9th; 5) Final paper draft, April 30th; 6) Final paper, May 14th.

Grading: Each student will be graded on the content, quality, and timeliness (20% penalty for missing a due date) of each of the above products. Each product (except the last) can be revised and resubmitted to the instructor throughout the course for additional comments and guidance; however, only the first draft will be graded.

This syllabus is subject to change.