# NORTH CAROLINA AGRICULTURAL & TECHNICAL STATE UNIVERSITY DEPARTMENT OF POLITICAL SCIENCE & CRIMINAL JUSTICE

<u>Course Title:</u> Geographic Information Science (GIS) for the Social

Sciences

Course Number: CRJS 440-01 Spring 2006

MW 6:00 p.m. to 7:15 p.m. 214 Gibbs Hall

<u>Instructors:</u> James P. Mayes, M.A., J.D. and Dr. Claude W. Barnes

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<u>Course Description:</u> This course is an introductory level course. The course will examine the basic principles and concepts of mapping and geographic information science (GIS). It will review quantitative analysis and the use of data in graphic presentations. Students will learn how to conceptualize GIS studies, how to analyze data and how to use software programs designed for GIS. Students will also examine the relationship between statistical spatial reports and public policy initiatives.

#### Course Objectives:

- 1. To familiarize the student with the principles and concepts of mapping.
- 2. To review quantitative analysis and the use of data in graphic presentations.
- 3. To instruct students in the use of ArcGIS software and how to design, construct and interpret statistical maps.
- 4. To examine the applications of GIS in the field of criminal justice and how these applications lead to public policy initiatives.
- To further prepare the student to apply interdisciplinary research and analysis to academic and public policy discourse thereby augmenting critical thinking skills.

#### **Course Materials:**

Getting to Know ArcGIS Desktop, Second Edition, Timothy Ormsby, Ellen Napoleon, Robert Burke, Laura Feaster and Carolyn Groessi, ESRI Press (2004)

Mapping Crime: Principle and Practice, Keith Harries, National Institute of Justice, NIJ# 178919 (December 1999)

The Texts will be supplemented by reading materials provided by the instructor.

#### **Course Requirements:**

Attendance 15% of grade

Class Participation 15% of grade

Midterm Exam 30% of grade

Final Project 40% of grade

Class attendance is mandatory for all classes unless an absence is excused for illness or an urgent /compelling matter. Attendance will be taken at the beginning of each class session. Arrival after the roll is taken is considered an absence. It is expected that all reading assignments will be completed. Students should expect to be called on in class without prior notice.

No late assignments will be accepted nor will any make-up exams be given. All assignments or projects submitted must be type written and conform to academic rules of style and content unless otherwise instructed.

All work in this class is subject to the University Policy on Academic Dishonesty. Cheating or knowingly assisting another student to do so, plagiarism, and unauthorized help on an individual assignment constitutes academic dishonesty. Any act of academic dishonesty will result in a failing grade and a referral to the Dean of Students for disciplinary action.

# Geographic Information Science (GIS) for the Social Sciences

### CRJS 440-01

## **ASSIGNMENTS**

1/9	Introduction
1/11	Harries, Chapter 1, Context of Concepts
1/16	Harries, Chapter 1, continued
1/18	Review: Data and Tools of Analysis
1/23	Review: Data and Tools of Analysis
1/25	Harries, Chapter 2, What crime Maps Do
1/30	Harries, Chapter 3, Maps and Issues
2/1	Harries, Chapter 3, continued
2/6	Harries, Chapter 4, Mapping crimes and GIS Systems
2/8	Harries, Chapter 4, continued
2/13	Harries, Chapter 5, Synthesis and Applications
2/15	Harries, Chapter 5, continued
2/20	Harries, Chapter 6, Crime Mapping Future
2/22	Ormsby, Chapters 1 and 2
2/27	Ormsby, Chapter 3
3/1	Midterm
3/6	Spring Break
3/8	Spring Break

3/13	Ormsby, Chapter 4
3/15	Ormsby, Chapter 5
3/20	Ormsby, Chapter 6
3/ 22	Ormsby, Chapter 7
3/27	Ormsby, Chapter 8
3/29	Ormsby, Chapter 9
4/3	Ormsby, Chapter 10
4/5	Ormsby, Chapter 11
4/10	Ormsby, Chapter 12
4/12	Ormsby, Chapter 13
4/17	Ormsby, Chapters 14 and 15
4/19	Ormsby, Chapters 16 and 17
4/24	Chapter, 18

Chapter, 19

Projects Due

4/26

5/1