Moravian College
Department of Sociology
Sociology 390: Forensic Criminology

Instructor: Dr. Scott Hoke
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Course description:

The scientific study of crime, criminals, and criminal behavior with the goal of assisting in the prevention of crime or the investigative process. As both *behavioral* and *forensic* science, the topic integrates material from many sub-disciplines including forensic science, criminal investigation, criminalistics, forensic psychology, victimology, crime reconstruction, criminal event analysis, and criminal profiling. Students in his course will examine how scientific techniques can be applied and how geographical principles can be used to identify specific patterns of behavior.

Course objectives:

The purpose of this course is to expose the students to the methods and practices that are used to investigate, solve, and prevent crime. The course will examine the contributions from two major fields of study: the geography of crime and forensic science.

- Students will demonstrate an understanding of how the geography of crime can be used as an investigative and preventive tool.
- Students will develop an understanding of how geographic software is used to assist in the investigation of crime.
- Students will demonstrate an understanding of how a number of different forensic science concepts can be used completing criminal investigations.
- Students will be exposed to how fire scenes are managed and how it is possible to identify the point of origin of a fire.

Text:

Saferstein, R. (2015). Criminalistics: An introduction to forensic science. Boston:Pearson.

Required readings:

Brantingham, P.L., & Brantingham, P.J. (2008). Notes on the geography of crime. In Principles of Geographical Offender Profiling (D. Canter & D. Youngs, Eds.).

Brantingham, P.L., & Brantingham, P.J. (2010). Nodes, paths, and edges: Considerations on the complexity of crime and the physical environment. In Classics in Environmental Criminology (M. Andersen, P.J. Brantingham, & J.B. Kinney Eds.).

Canter, D., & Youngs, D. (2008). Geographic offender profiling: applications and opportunities. In Applications of Geographic Offender Profiling (D. Canter & D. Youngs, Eds.).

Rengert, G.F., & Wasilchick, J. (2010). The use of space in burglary. In Classics in Environmental Criminology (M. Andersen, P.J. brantingham, & J.B. Kinney Eds.).

Rhodes, W., & Conly, C. (2008). Crime and mobility. In Principles of Geographical Offender Profiling (D. Canter & D. Youngs, Eds.).

All required readings will either be posted for the students on the College's learning management system or will be placed on reserve at the library.

Attendance policy

College is designed to prepare the student to be effective professionals. part of that process is to develop a strong work ethic. As such, there are attendance requirements for this class. If a student is absent from class on more than 30% of the time (8 class periods) the overall course grade will be reduced by one letter grade. If the student misses more than 35% of the course (10 class periods) they will fail the course.

I fully support college your participation in college activities. If you have a college-sponsored event that requires you to miss class that absence will not be counted against you.

Course assignments:

- Quizzes: There will be an in-class quiz associated with each of the assigned readings. In total, there are 11 quizzes. The first is not counted toward your grade and is designed to make you familiar with the quiz style and process. As the classroom if a cooperative learning environment, the quizzes are small group exercises and are designed to allow the students to express an understanding of the readings with one another.

  If the student is absent because of a college-sponsored event, he or she may make up the quiz at a time that is negotiated with me. As a general rule, college-sponsored events are the only acceptable excuse. Medical excuses will be considered as appropriate but attending class on the date of the quizzes should be the goal of every student.

- Examinations: There are two examinations for this course, One after the completion of the unit on the geography of crime and one after the concepts of forensic science are explained.

- Labs: There are 8 lab assignments associated with this class. Each of the labs is assigned a point value. For the student to receive credit for participating in the lab they must be present. If the lab covers more than one class period, the student must be present for each of the lab periods to receive full credit. As an example, if the lab takes 2 class periods to complete the student will receive 100% credit for attending both classes, 50% for attending one of the two, and 0% for attending none of the classes.

- I do recognize that absence from class is unavoidable on some occasions. As a result, one of the quiz grades will be dropped before the course grade is calculated. In addition, one of the lab grades will also be dropped. It is not possible to drop one of the two examinations.

Assignment value:

• 9 quizzes (1 is dropped and one is not graded)	50 points each	450 points
• 2 examinations	100 points each	200 points
• 7 labs (one will be dropped)	50 points each	350 points
• Total		1000 points

Grading schedule: Your grade will be based on the following matrix:

- 94-100 = A
- 90-93 = A-
- 87-89 = B+
- 84-86 = B
- 80-83 = B-
- 77-79 = C+
- 74-76 = C
- 70-73 = C-
- 67-69 = D+
- 64-66 = D
- 60-63 = D-

Student disabilities:

Students who wish to request accommodations in this class for a disability should contact Elaine Mara, assistant director of learning services for academic disability support in the lower level of Monocacy Hall, or by calling 610-861-1401. Accommodations cannot be provided until authorization is received from the Academic Support Center.

Course Outline

Please keep in mind that a syllabus is an estimate of student learning. I reserve the right to make changes to the schedule based on an understanding of the pace to student learning. Any changes to the syllabus will be discussed in class.

Week 1 January 19th

Class 1

- Introduction to course
- Explanation of course format
    - lecture/lab format
        - lectures precede lab experience
    - lab projects
        - group lab assignments
    - quiz format
        - the start of every class

Week 1 January 21st

Class 2 Eyewitness testimony

Objective: to understand the need for forensics evidence and techniques

- Video: Eyewitness memory

Week 2 January 26th

Class 1

Eyewitness testimony

Objective: to understand the need for forensics evidence and techniques

Week 2 January 28th

Class 2 Forensic geography

Objective: to understand how geography can be used as a tool to understand crime

- Understanding the basics of geography
    - How can geography be used to solve or prevent crime?
- Canter, D., & Youngs, D. (2008). Geographic offender profiling: applications and opportunities. In Applications of Geographic Offender Profiling (D. Canter & D. Youngs, Eds.).
- Quiz on reading (#1)

Week 3 February 2nd

Class 1 Lab #1

Objective: Develop a familiarity with the ArcGIS software

- Explanation of software
- Build shapefile of Northampton County
    - We will be using two data from 2 police departments: one rural on suburban

Week 3
Class 2 February 4th
Objective: Understanding the basics of crime pattern theory (offender movement)

- Offender movement: Nodes, paths, edges, etc.
- Brantingham, P.L., & Brantingham, P.J. (2008). Notes on the geography of crime. In Principles of Geographical Offender Profiling (D. Canter & D. Youngs, Eds.).
- Brantingham, P.L., & Brantingham, P.J. (2010). Nodes, paths, and edges: Considerations on the complexity of crime and the physical environment. In Classics in Environmental Criminology (M. Andersen, P.J. Brantingham, & J.B. Kinney Eds.).
- Quiz on readings (#2)

Week 4 February 9th
Class 1 Lab #2
Objective: Becoming familiar with address mapping

- Students will map residential burglary
    - Two maps: Easton, PA & Pocono Mountain Regional Police Department

Week 4 February 11th
Class 2
Objective: Understand the application of a concept

- How can offender mobility be understood and applied?
- Rhodes, W., & Conly, C. (2008). Crime and mobility. In Principles of Geographical Offender Profiling (D. Canter & D. Youngs, Eds.).
- Rengert, G.F., & Wasilchick, J. (2010). The use of space in burglary. In Classics in Environmental Criminology (M. Andersen, P.J. brantingham, & J.B. Kinney Eds.).
- Quiz on readings (#3)

Week 5 February 16th
Class 1 Lab #3
Objective: Determine distance and area to identify potential suspects

- Using buffers to determine at-risk targets and developing an idea of where offender might live or travel
    - Buffer maps: 250/500 & 500/750

Week 5 February 18th
Class 2 Lab #4
Objective: Determine temporal relationships to identify clustering

- Using buffers to determine at-risk targets and developing an idea of where offender might live or travel
    - categorical mapping in 10-day intervals

Week 6 February 23rd
Class 1
Objective: Demonstrate an understanding of geographic concepts

- Examination #1

Week 6 February 25th
Class 2
Objective: Understand how to investigate the crime scene

- Chapter 2 The Crime Scene
- Quiz on chapter 2 (#4)
- Lecture: How to process a crime scene

Week 7 March 2nd
Class 1 Lab #5
Objective: Processing a crime scene

- In this exercise students will be broken into teams and they must process a crime scene according to the standards that were presented in the text and explained in the lecture. Each of the teams must work as a group to create a presentation that details their findings based on the evaluation of the crime scene.
- This is not a classroom experience. Students will not report to the classroom. They must report directly to the location of the crime scenes and process it accordingly.

Week 7 March 4th
Class 2 Lab #5 presentations
Objective: Demonstrate an understanding of how to break down and process a crime scene

- In this exercise students must present their findings of the crime scene. Each group must use some presentation medium (PowerPoint, as an example) to explain their particular crime scene. The group must be clear in identifying and visualizing how each of the steps in the processing was managed.

Spring Break March 7-15

Week 8 March 16th
Class 1
Objective: Understand the basics of fingerprinting

- Chapter 3 Physical Evidence
- Chapter 6 Fingerprints
- Quiz on readings (#5)
- Lecture: How to take and examine fingerprints
- https://www.youtube.com/watch?v=w7wUuRiMCuM
- https://www.youtube.com/watch?v=IrpTqKkgygA
- https://www.youtube.com/watch?v=d7N-4UNAzsw

Week 8 March 18th
Class 2
Objective: Demonstrate the ability to take fingerprints

- In this class, students will be given the opportunity to practice fingerprinting one another and identifying the types of prints that are taken. This exercise is necessary to complete the lab exercise that will follow with some level of skill.

Week 9 March 23rd
Class 1 Lab #6
Objective: Demonstrate the ability to take fingerprints

- In this class, students will report to the classroom and will be given the identity of people on campus that they must visit and fingerprint. Each group will be given a fingerprint kit and must return with the fingerprint of the people they have been assigned.

Week 9 March 25th
Class 2
Objective: Demonstrate the ability to successfully match fingerprints

- Working in the same groups that students were assigned for lab #6, each group must successfully match the unidentified fingerprints given to them to those posted as examples in the classroom. One answer key must be submitted by the end of the class for each of the student groups.

Week 10 March 30th
Class 1
Objective: Understand how tools, impressions, and marks are viable resources

- Chapter 8 Firearms, Tool Marks, and Other Impressions
- Quiz on reading (#6)
- Lecture: Understanding how these concepts can be used in developing evidence and determining culpability

Week 10 April 1st
Class 2 Lab #7
Objective: Understand how tools, impressions, and marks are viable resources

- In this exercise students will be asked to develop footprint casts. Each of the groups will be given the materials to create the cast and must complete the task by the end of the class period. Casts must be turned in by each group at the start of class 1 for week 11.

Week 11 April 6th
Class 1
Objective: Understand how tools, impressions, and marks are viable resources

- Students will be asked to identify the shoe is associated with the various prints that have been taken. Each group must bring their cast to class. These are the casts that will used to identify those found in the sample box. Each group must hand in one answer key by the end of the class period.

Week 11 April 8th
Class 2
Objective: Understand how evidence such as hair and fiber can be used to understand the crime scene

- Chapter 10 Hairs and Fibers
- Quiz on reading (#7)
- Lecture: How can hairs or fibers collected at the scene be used to understand the criminal event

Week 12 April13th
Class 1
Objective: Develop and understanding of how toxicology can be used to understand the criminal event

- Chapter 12 Forensic toxicology
- Quiz on reading (#8)
- Lecture: What is toxicology and how can it be used to identify what occurred at the crime scene.

Week 12 April 15th
Class 2
Objective: Develop an understanding of the basics of blood analysis

- Chapter 14 Forensic Serology
- Quiz on reading (#9)
- Lecture: How are bloodstains used to evaluate the crime scene

Week 13 April 20th
Class 1
Objective: Develop an understand of what DNA is and how it can be used

- Chapter 15 DNA: The Indispensable Forensic Science Tool
- Quiz on reading (#10)
- Lecture: The myths behind the use of DNA

Week 13 April 22nd
Class 2
Objective: Understand the basics of fire investigation

- Chapter 16 Forensic Aspects of Fire and Explosion Investigation
- Quiz on reading (#11)
- Lecture: How is a fire scene investigated

Week 14 April 27th
Class 1 Lab #8
Objective: Understand the basics of fire investigation

- In this lab we will be traveling to the Allentown Fire Academy to view a demonstration on how to determine the point of origin in fire investigations. Because a class is only 90 minutes, it will be necessary to try and start class earlier than normal so we can make it to the Academy and participate in the exercise. I would like to leave at 7:30 and realize that it might be necessary for some of you to make arrangements to attend. If students have conflicts I will try to make accommodations. In the end, however, the travel time involved in this lab will require that we leave as early as possible.

Week 14 April 29th
Class 2
Objective: Demonstrate an understanding of the basic concepts of forensic science

- Examination #2