**Syllabus for CJFS 3710 Social Statistics** Fall Semester 2014 8/20/2014 Handout (HO) #1, page 1 of 2

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***CRN/catalog #***: 44267/3710 (3 credit hours) ***Phone #***: 330 941-1789—my office or 330 941-3279—Dept of CJFS

***Class location:*** Rm 2230 Cushwa Hall ***Office hours***: MWF 9-10am, Tuesday 9-11am, and by appointment

***Class time***: Mon and Wed 8:05-9:20pm ***Office***: Rm 2167 Cushwa Hall

***Course Description and Learning Objectives***: The purpose of this course is to help students become better users and consumers of statistics relevant to the criminal justice system. In doing so, students will pursue these four learning objectives: 1) appreciate, interpret, and evaluate stats; 2) select appropriate stats; 3) calculate/produce and analyze stats; and 4) share/present stats. The course is framed around the four functions of stats, to: 1) describe/summarize; 2) compare; 3) connect; and 4) predict/explain. Throughout this course, students will have opportunities to use computers to manipulate and understand stats. No prior computer experience is necessary. Overall, stats will be covered in its three forms: 1) as pieces of organized info (data); 2) as tools used to organize info; and 3) as a process/strategy for numeric problem-solving.

***Helpful Things***: 1) textbook-Fox, James A., Jack Levin, and David R. Forde, 2014, Elementary Statistics in Criminal Justice Research, 4th edition , Columbus, OH: Pearson, and URLs for two other textbook websites are <http://www.sagepub.com/gau> and <http://www.wadsworth.com/cgi-wadsworth/course_products_wp.pl?fid=M20b&flag=student&product_isbn_issn=9780495096559&disciplinenumber=14>); 2) calculator that can do the basics (add, subtract, multiply, divide, and square root); 3) ability to read, write, and communicate effectively; 4) willingness to learn which includes quality study time outside class (anywhere from 3 to 12 or more hours each week) and 5) **Prerequisite**: Criminal Justice 1500 (Intro to Criminal Justice).

***Format and Responsibilities***: Students are to read the assigned course material before class, visit regularly the course website <http://statistics3710.weebly.com>, ask questions, and discuss issues relevant to criminal justice statistics. In addition, students are to:

1. turn in 10 sets of **Points of Interest** (POI—see HO#2), due the first 10 Mondays we have class; POI are made up of 3 things—*syllabus Q & A* which is a quote and your own 2-sentence response to one of the questions of the week from the syllabus*, your Q & A* about the assigned material relative to your chosen career (***A*** must be 3-sentences), and a *Show and Tell* where you display a graph, figure, chart, or table from you, a newspaper, journal, text, or website and provide a 3-sentence interpretation of the “Show”~visual statistic—these three things make up one set of POI and do not have to relate to one another, only to one or more things about the agenda for the week (make sure to cite, APA style-see <http://citationmachine.net> , any info that is not your own);
2. turn in 5 **Critical Reviews** (CR—see HO#3), due on dates specified on the “Schedule” found on syllabus page 2; CR are made up of at least 9 sentences and follow the background-3-2-1 rule where “background” is 2 sentences about 1 or more of the authors of the CR article, “3” are 3 core findings of the article of based on its tables/charts1, “2” are 2 aspects of the stats portion of the article that are hazy or interesting, and “1” is 1 application/policy/use/ of the article for future efforts; CRs are based on published *research* articles whose authors use stats as tools; the 5 CR articles will be given in class or via the course website;
3. present material individually and within a group context (see HO#4);
4. assess criminal justice statistics, research, and literature periodically;
5. utilize library and computer resources (i.e. use Excel and tap into web info); and
6. perform assignments from taking part in computer lab sessions to producing an original dataset stats project--see HO#5 and HO#6).

***Attendance***: Attendance is crucial and expected. Because of the enlightening class coverage and because exams cover both inside (lecture, discussion) and outside material (readings from the handouts or postings on the course website), I strongly suggest students attend class. Also, videos and invited speakers may be used in class. When students miss class, they must submit a 1-page overview of the assigned material (see HO#7 for details). If students miss a class and fail to turn in a completed “missed class summary” they lose 3 points for each absence and a max of 10 points throughout the semester.

***Grades***: Grades are based on: class participation (see parts 1-6 of *Format and Responsibilities* above), presentation, two exams (including one cumulative Final), and one dataset project with two parts. Presentations tap into the student's mastery of the material and often take the form of evidence gathering, data entry, analysis, interpretation, and calculations with short explanations to questions. The exams include: multiple choice questions, true and false statements, short essays or word problems (i.e. describe concepts, give definitions, solve calculations, interpret findings), and more thorough essays (i.e. explain ideas, provide detailed examples, set-up complicated solutions and comment on findings). The grading scale and the worth of the various components of the student's grade are:

A = 90 to 100 (exceptional work) Participation (POI 10 pts, CR 15 pts, & class participation 5 pts) = 30

B = 80 to 89 (very good work) Presentations (Last Lecture 5 pts and Group Project 10 pts) = 15

C = 70 to 79 (average to good work) Exam One = 20

D = 60 to 69 (fair to quasi-coherent work) Individual Dataset Project, iProject (Part1 5 pts and Part2 20 pts) = 25

F = Below 60 (< minimum grasp of the essentials) Final (take home) = 10

***Note 1, Make-up Exams***: Make-up exams are given only when students obtain permission from me prior to the exam and/or sufficient documentation of serious illness or emergency is provided. Make-ups are different from original exams. If a make-up is necessary it is the student’s responsibility to make arrangements to take the make-up in a timely fashion.

**Schedule** (subject to change) CJFS 3710 **Social Statistics**, Fall 2014 page 2 of 2

(HO=handout)

**Week # Wed Date Agenda Description Readings (**Ch=Text Chapter**)**

# Area 1: Describe/Profile/Summarize

1 8/20 Instructor, syllabus, expectations, and relevance of stats Ch1 & HO# 1-8

1)what will we cover, how will we cover it, and why is this class and stats important

2 8/27 Science, research, theory, and descriptive statistics; **CR1 due Wednesday 8/27** Ch2

2)how do you pick a problem, what are descriptive stats, what is the context of stats

3 9/3 The use of visuals in statistics; Ch2

3)what is some graphic advice; how do you interpret certain stats visuals Handout

4 9/10 Measures of central tendency & computer work; **iProject 1 due Wed 9/10** Ch3

4)what is the appropriate summary stat for each level of measurement, what does skew mean

5 9/17 Measures of dispersion & computer work Ch4

5)what is the appropriate stat measuring variation for each LOM, why are these stats important

6 9/24 Probability and the normal curve; **CR 2 due Wednesday 9/24** Ch5,6

6)what is probability, how is it a foundation of science, what are essential normal curve ideas

7 10/1 Computer work and review; **Exam One Wednesday 10/1** Handout

7)what software helps you with these types of stats, how do you interpret their various output

# Area 2: Compare, Sample, Estimate (hypothesis test)

8 10/8 Sampling, distributions, power, and inferences; **CR 3 due Wednesday 10/8** Ch6; Handout

8)how does selecting evidence to address problems work, how many cases are needed to generalize

9 10/15 One-sample hypothesis testing Ch7; Handout

9)how you compare a sample to its population, what does statistically significant mean

10 10/22 Two-sample hyp testing & computer work; **Group Project Wednesday 10/22** Ch7,9; Handout

10)how you compare 2 samples, what 5 step process works well with hypothesis testing

11 10/29 Analysis of Variance (ANOVA); **CR 4 due Wednesday 10/29** Ch8; Handout

12)how do you compare more than 2 groups, what’s the danger of too many comparisons

12 11/5 Chi-square analysis; **CR 5 due Wednesday 11/5** Ch9; Handout

12)how do you look for a relationship when you have nominal data, what’s a cross-tab

# Area 3: Connect/Relate

13 11/12 Measures of association at the nominal level; Ch12

13)what is an association, how is it different from a relationship via chi square

14 11/19Measures of assoc at the ordinal/interval levels; **iProject 2 due Wed 11/19** Ch10,12

14)what measures of association are appropriate at the ordinal and interval levels

***Area 4: Explain/Predict***

15 11/26 OLS and logistic regression Ch11; Handout

15)what stats are used to predict and explain, how do you interpret regression info

16 12/3 Statistics, mapping, and statistics in your career, **Last Lecture due Mon 12/3** Ch2,13; Handouts

16)how does mapping use and influence stats, of what use is stats in CJ-related careers

17 **Final Exam Monday December 8, 2014 8:00-10:00pm**

***Note 2, Grace Policy***: Assignments/projects can NOT be handed in late without penalty of 25% off for each class they are late. If you are absent from class and have a valid excuse (medical emergency, death in the family, etc.), you have the number of days you are absent in order to turn in past due work. However, this "grace period" is the first day back for unexcused absences and does NOT exceed Monday, December 8, 2014 at 8:00pm.

***Note 3, Student Norms***: In addition to the reading assignments listed above to be read before class, students are responsible for material covered in class. Written assignments and/or in-class quizzes are given as well. The dates for the assignments are announced in class. Quizzes are NOT announced. If you are absent, it is up to you to find out what has been covered and/or assigned. If you miss a quiz, you must contact me to receive an assignment due the next class meeting after your return. You should make use of a computer to facilitate and enhance your work for class. A failing grade and/or other appropriate action will be given to you if you participate in academic dishonesty as described in the YSU Undergraduate Bulletin.

***Note 4, Resources:*** YSU support services are available for students in need (Writing Ctr 330-941-3055, Math Assistance Ctr 330-941-3274, Reading & Study Skills Lab 330-941-3099, and Meshel Hall 330-941-3036). Students who have a documented disability and require accommodations to obtain equal access in this course, should contact the instructor privately to discuss their specific needs. Students must be registered with the Center for Student Progress (CSP) Disability Services, located at 275 Fifth Ave, and provide a letter of accommodation to verify eligibility (Disability Services 330-941-1372).