Department of Mathematics & Statistics

INTRODUCTION TO PROBABILITY AND STATISTICS

MAT 135 – CRN 50491

Course Section: 2 – Credit Hours: 4

SUMMER 2011 – Course Syllabus

Meeting: M T Th F 10:15 AM – 12:55 PM; FH 309

and Wednesday June 1 and Wednesday June 29

Instructor: Dr. Donald Adongo, FH 6A-7

Contact: donald.adongo@murraystate.edu, 809-2490

Office Hours: M T Th F 8:30 – 10:00 AM (FH 6A-7) and by appointment

Web site: http://campus.murraystate.edu/academic/faculty/donald.adongo

I Title

Introduction to Probability and Statistics

II Catalog Description

Elementary probability, the binomial, normal, student's and chi-square distributions, random sampling, regression and correlation. Prerequisite: ACT math standard score of at least 20 or MAT 105.

III Purpose

Many diverse fields of study rely on the methods of probability and statistics to summarize and analyze data generated by experimental studies. The purpose of this course is to introduce students to basic ideas in probability theory and underlying concepts in statistical inference procedures. The course includes

1. Understanding the concept of *variance* and its importance in statistical analysis.
2. The ability to perform basic statistical calculations, using appropriate technology.
3. The ability to understand the concepts of statistical reasoning and to judge the quality of statistical information presented by others.
4. The ability to clearly describe the meaning of statistical results, by writing clear sentences.

IV Course Objectives

Successful students should have a good understanding of

1) descriptive statistics, methods of gathering data and the graphical display of numerical data.
2) probability rules for independent and dependent cases.
3) normal and binomial distributions.
(4) sampling distributions
(5) hypothesis testing

V Content Outline

This course will address the content of chapters 1-26 of the text. Some sections may be only lightly covered or skipped.

VI Instructional Activities

Classroom lectures, discussions, and daily homework. There will also be occasional group work or activities.

VII Calculator

A graphing calculator is **required**. The preferred calculator is one in either the TI-83 or TI-84 family of calculators. Cellphone calculators are prohibited whereas others may be used with the permission of the instructor.

VIII Electronic Communication Policy

It is the default policy of the Department of Mathematics and Statistics that, without the prior consent of the course instructor, no device may be used for electronic communication in class. This shall include cell phones, smart-phones, computers, laptops, and tablets. In addition, this includes verbal calling, incoming calls, email, text messaging, the use of cell phone calculators on tests and quizzes, and the use of the wireless capabilities of calculators or other electronic devices. Unless given special permission in advance from the course instructor for potential cases of emergency or critical family situations, cell phones must be kept on silent and out of sight (i.e. secured to a person's belt or kept in a bag or purse away from desks). Should a student's cell phone be visible, ring, or should the student be engaged in some other form of unauthorized usage that the course instructor finds to be disruptive to the class, the student may be asked to leave class and not return for that class period, and be counted absent for that day. Similar restrictions and penalties apply to use of other electronic devices, unless permitted by the instructor for that class period.

IX Resources

Textbook, instructor, graphing calculator. Occasionally handouts will be given to aid in the understanding and organization of the material. If you miss a class period, it is your responsibility to get a copy of any item handed out that day.

X Grading Procedures

Your grade will be based on EXAM grades, HOMEWORK grades, and GROUP WORK/PROJECT grades. Seventy two percent of the course grade will come from 3 major exams (each exam counts 24 percent of the course grade). The homework grade will contribute 18 percent, while the group work/project grade is worth 10 percent of the course grade. The grading scale will be:

% Points (x)	90 - 100	$80 \leq x < 90$	$70 \leq x < 80$	$60 \leq x < 70$	$0 \leq x < 60$
Grade	A	B	C	D	E

Exams: The Exams will test your comprehension of concepts and skills not covered on a previous exam. Exams may contain both problem-solving questions and essay questions. Exams occur for everyone (to be fair to everyone) on the scheduled date. Sometimes, however, extenuating circumstances do exist. If you absolutely must miss an exam, you are to stop by or call me (or leave a message with the office if I am not in when you call) before the exam to tell me why you cannot be at the exam. In addition, you must complete the "missed exam form" (see the course website) within one day. If you do not, you will get a zero on that exam with no opportunity to make it up. An excused missed exam will be made up in my office within two days (an extension may be granted in rare cases), with the grade to be determined as explained at that time. Our three semester exams will be **June 9, June 17,** and **June 30**.

Homework: Homework will be assigned at the beginning of each section and will also be listed on the course web site. Homework will be collected twice a week (Monday & Thursday). **(No Late Homework)**. Homework must be completed in pencil, separate from your notes, and on loose-leaf paper or paper without rough edges. **Staple** your papers together if you have used more than one sheet other wise your homework **will not be accepted**. Your name and class meeting time should be written on the top right part of the first page.

Group Work/Projects: Group work/projects will usually be carried out in class with each person turning in report.

Important Grade-dates: The last day to drop a course without receiving a grade (or a W) is Wednesday, June 1. The last day to drop individual courses and receive a grade of "W" (no penalty) is Friday, June 24.

Auditing: To Audit the course you need my permission. You will be expected to participate in all tests and assignments with a course average of at least 40%, and you will be expected to attend with no more than 1 absence for the whole semester. If you switch to 'Audit' in mid-semester, you must meet all of the requirements of an ordinary auditor (mentioned above). Thus, if you have already missed 2 or more class periods, you may not change to 'Audit.' Failure to meet any of these after being granted an Audit will result in the grade 'Au' being changed to an 'E.'

XI Attendance Policy

Class attendance will be taken daily. If you miss class you are responsible for obtaining the day's notes and assignments. You are expected to attend every class period and your grade will suffer if you do not attend. For every class missed you will loose $\frac{3}{4}$ percentage points from your course grade. To level the playing field between those who must miss classes because of MSU and those who do not, the only kind of absence which will not be counted in this regard is a university-required absence. Thus, anything else (for instance, being sick, going on a job interview, taking care of a sick relative, etc.) will count as one of these absences. See the MSU policy on attendance in the current Catalog: (online at http://www.murraystate.edu/provost/catalogs/010507.html#Policies) Note the following provisions on arriving late to class or leaving early:

(a) Every two tardies (arriving late) will count as an absence.

(b) Leaving class early will count as an absence unless you provide me with a reason in advance.

Holidays: None.

XII Academic Honesty

Cheating and plagiarism (submitting another person's material a is one's own, or doing work for another person which will receive academic credit) are all impermissible. This includes

1) the use of unauthorized notes on an exam,
2) looking at the exam of another or allowing another to look at your exam,
3) taking an exam for another or having another take an exam for you,
4) telling others the contents of an exam they have not yet taken or soliciting from others the contents of an exam which you have not taken, and
5) copying the contents of another's take-home assignment or allowing another to copy the contents of your take-home assignment (this does not include working together, with mutual understanding, on a take-home assignment).

The result of non-premeditated cheating (i.e. (2) or (5)) will be a zero for that assignment. The result of premeditated cheating (i.e. plagiarism or (1), (3), or (4)) will result in a grade of 'E' for the course. See the MSU policy on Academic Honesy in the current Catalog:

(online at http://www.murraystate.edu/provost/catalogs/010507.html#Policies)

XIII Texts and references

Intro Stats, 3rd ed., by De Veaux, Velleman, and Bock. Pearson – Addison Wesley

XIV Prerequisites

ACT math standard score of at least 20 or MAT 105.

XV Statement of Affirmative Action and Equal Opportunity

Murray State University endorses the intent of all federal and state laws created to prohibit discrimintation. Murray State University does not discriminate on the basis of race, color, national origin, gender, sexual orientation, religion, age, veteran status, or disability in employment, admissions, or the provision of services and provides, upon request, reasonable accommodation including auxiliary aids and services necessary to afford individuals with disabilities equal access to participate in all programs and activities. For more information, contact Sabrina Y. Dial, Director Equal Opportunity, Murray State University, 103 Wells Hall, Murray KY 42071-3318. Telephone 270-809-3155 (voice), 270-809-3361 (TDD).

****

Please fill out this portion, detach it and return to the instructor by **Wednesday June 1, 2011**.

By my signature below, I certify that I have received a copy of the course syllabus for MAT 135 taught by Dr. Donald Adongo during the Summer Semester of 2011. Furthermore, I certify that I have read and understand the contents of the course syllabus.

Printed Name .....

Signature .....

Date .....