

# Statistics - STAT2040

## Course Syllabus – Fall 2012

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Office Hours: 10:30 am – 12 noon am Monday thru Thursday; and by appointment

Class: Section 40 Online

Text: no required text - optional text: Elementary Statistics Using Excel, by Mario Triola (either 1<sup>st</sup> or 2<sup>nd</sup> edition is OK - the older 1<sup>st</sup> edition only costs \$10-\$20 if you buy it used online) ISBN 0-201-69942-7

**COURSE DESCRIPTION:** This course is designed for non-math majors and focuses on the basics of statistics that all students of business and nursing must understand in order to be an effective employee, practitioner and/or manager. The course covers those areas that are commonly encountered across all disciplines, but focuses on business and medical applications.

**PREREQUISITES:** CIS 1200 and MATH 1010

**LEARNING OUTCOMES (LO):** This course is intended to address selected Bachelor of Business program learning outcomes on the introductory and developmental levels:

1. Students will demonstrate a working level knowledge of the core functional areas of business:
  - A. Students will demonstrate a working level knowledge of core business functions of statistics.
  - B. Students will analyze a complex business situation, identify relevant functional statistical issues and suggest viable courses of action
2. Students will process a complex business situation and develop sound alternatives for action utilizing qualitative and quantitative analysis
3. Students will possess the interpersonal and communication skills necessary to succeed in business:
  - A. Students will deliver professional quality oral presentations
  - B. Student will prepare professional quality written presentations
  - C. Students will identify the essential elements of successful teamwork and will reflect upon their competency and experiences in applying them

**COURSE OBJECTIVE:** This course will provide students with knowledge of the fundamental purposes and uses of statistics in everyday and professional life. Students will develop their skills related to statistics as they carefully study course materials and complete / review assignments and prepare for examinations. The following objectives will be met:

1. Recognize, calculate and interpret descriptive statistics. [LO 1A]
2. Calculate basic probability events and develop intuition related to probability. [LO 2]
3. Perform statistical analyses in MS Excel®. [LO 1B, 2, 3B, & 3C]
4. Define and develop hypothesis tests and interpret results. [LO 2]
5. Define and develop correlation and regression tests and interpret output. [LO 1B & 2]

**GRADING:** Grades will be based on your performance on a syllabus quiz, eight examinations and a comprehensive final exam. **Section exams are taken in the DSC Testing Center. Practice exams are taken at any computer with and internet connection through the Canvas class website.** To take a section exam you must access the Canvas class website and logon using your personal username and password. After you enter the Canvas class website, click QUIZZES on the Canvas menu and then select the appropriate section exam you are taking. Next, you will be asked for a password. This is a special password that only the Testing Center can input. Violation of this procedure is cheating, unethical, and would clearly show a lack of integrity. You are only allowed to access the exam and to open Excel on the testing center computer. You are NOT ALLOWED to access any other websites, including the course website, during the exam. Also, no emailing or cell phone calls. However, you ARE ALLOWED TO HAVE one 8-1/2 x 11 inch sheet of paper, HANDWRITTEN (not printed or typed) front and back, of PERSONAL NOTES (no machine printed or copied notes, or notes from other students) during the exam. You can also have a sheet of scratch paper, provided by the testing center. When you complete an exam and submit it, the computer will give you your score for that exam. The score will also be posted on the website for your review (other students CANNOT see your score) and you can see statistics related to each

exam. The Personal Notes that you use for an exam MUST be turned into the testing center before you leave. YOU MUST NOT remove any material from the testing center that you used or created during the exam.

The key to doing well on the exams is to practice, practice, and practice. Statistics is more than knowledge; it is a skill that is only obtainable through consistent use and practice. Course materials and practice exams are designed to provide you experience in completing the types of problems you will encounter on the exam. Successful students in this course study the course materials thoroughly, take the practice exams, and review the practice exam key prior to sitting for the section exam.

**Course Schedule (Subject to Change)**

<b>Due Date</b>	<b>Subject</b>	<b>Assignment / Test Due</b>
Aug 24	Introduction to Statistics / Describing Data	Syllabus Quiz
Aug 31	Introduction to Statistics / Describing Data	Practice Exam #1 Section Exam #1
Sep 7	Probability	Practice Exam #2
Sep 14	Probability	Section Exam #2
Sep 21	Distributions	Practice Exam #3
Sep 28	Distributions	Section Exam #3
Oct 5	Confidence intervals and sample size	Practice Exam #4
Oct 10	Confidence intervals and sample size	Section Exam #4 Note: Wednesday due to Fall Break holiday
Oct 19	Hypothesis testing	Practice Exam #5
Oct 26	Hypothesis testing	Section Exam #5
Nov 2	Comparing samples of data	Practice Exam #6
Nov 9	Comparing samples of data	Section Exam #6
Nov 16	Correlation and regression	Practice Exam #7
Nov 27	Correlation and regression	Section Exam #7
Dec 7	Analysis of variance	Section Exam #8, No practice exam
Dec 14	Final Exam	Final Exam

## EXAM POLICY

The following conditions and rules apply to this course:

1. The exams open and close dates are posted on the home page for this course under "Course Tools / Assessments". **Late exams are not allowed.** Please see the instructor if you have any special circumstances. You must accept the consequences if you fall behind, including penalties and failure to complete the course.
2. The last day / time an exam may be taken is listed under "Course Tools / Assessments". Each exam is available for a period of at least one week.
3. You will have 2 hours to complete all exams, including the final exam. Your grade on the exam will be available immediately after you complete the exam.
4. **There are no 2<sup>nd</sup> chance exams or extra credit opportunities**, so be prepared when you take the exams. There are 8 section exams plus a final exam, for a total of 9 exams. You may drop your lowest section exam score so there is opportunity to make up for a poor score on one exam by doing well on the remaining exams. The final exam MAY NOT be dropped.

### Final grade computation will be as follows:

Syllabus Quiz (1 X 30 points) =	30 points
Practice Exams (7 X 10 points) =	70 points (Take practice exams by deadline = full credit, regardless of score)
Section Exams (7 X 100 points) =	700 points (drop the lowest of the eight exams)
Final Exam =	200 points
<b>TOTAL =</b>	<b>1000 points</b>

Grades will be assigned according to the following scale:

A = 93.0 - 100%
A- = 90.0 - 92.9%
B+ = 87.0 - 89.9%
B = 83.0 - 86.9%
B- = 80.0 - 82.9%
C+ = 77.0 - 79.9%
C = 73.0 - 76.9%
C- = 70.0 - 72.9%
D+ = 67.0 - 69.9%
D = 63.0 - 66.9%
D- = 60.0 - 62.9%

The instructor reserves the right to modify the grading scale to the benefit of the student(s).

***A good working knowledge of Excel is essential in order to succeed in this Statistics course. If you are unfamiliar or uncomfortable using Excel, I strongly suggest that you take a course in Excel BEFORE taking this course.***

***PRACTICE: Anyone can learn about statistics, no special math skills are required, but it requires diligent study and practice. The more you study, review and practice the better you will do in this class. If you do not study and practice you will NOT do well in this class. Further, taking practice exams on or before the posted practice exam deadline will provide you with full credit (10 points) regardless of your score.***

**ASSISTANCE: I want to make myself available to help you in this course. I am available by email at [lindseys@dixie.edu](mailto:lindseys@dixie.edu) or you can call my office. I will respond to questions submitted via email Monday - Friday within 24 hours and by Monday at 5pm for questions submitted Saturday and Sunday. You can stop by my office (UHB 343) during my office hours or make an appointment and I will be happy to meet with you. You are encouraged to form study groups. I would also be available to meet with your study group on occasion.**

**I also suggest that you utilize the "Discussions" link on the classes' Canvas site. It is divided into:**

- **General course questions**
- **Interested in joining a study group?**
- **Trouble understanding a statistics problem**

**Use proper discussion forum etiquette. Ask and answer questions respectfully. I encourage you to answer each other's questions. I will monitor the discussion forums and provide whatever input seems helpful**

### **Important Course Information**

DSC Academic Calendar: Please refer to <http://www.dixie.edu/reg/?page=calendar> for the Dixie State College 2012-13 Academic Calendar.

Prerequisites: If you have not completed the prerequisites for the class, please drop this course as soon as possible. If you have questions concerning the prerequisites, please contact the Business Advising Office.

CHEATING: Cheating will not be tolerated. Cheating includes all forms of academic dishonesty **including telling others about questions on an exam**. Cheaters will be disciplined according to school policy, and must accept with the consequences.

Student Responsibilities: All students are expected to maintain professional behavior, according to the Student Rights and Responsibilities Code (<http://www.dixie.edu/humanres/policy/sec5/533.html#behave>). Students have specific rights as detailed in Section 1 of the Code. The Code also specifies proscribed conduct (Section 2) that involves cheating on tests, plagiarism, and/or collusion, as well as fraud, theft, etc. Students should read the Code carefully and know they are responsible for the content.

Faculty Responsibility: It is the faculty responsibility to enforce responsible behaviors, and I will do so, beginning with verbal warning and progressing to dismissal from class and a failing grade. Students have the right to appeal such action per the Student Rights and Responsibilities Code

Dmail: You are required to frequently check your dmail account. Important class and college information will be sent to your dmail account. This information includes your DSC bill, financial aid/scholarship notices, notification of cancelled classes, reminders of important dates and events, and other information critical to your success in this class and at DSC. All DSC students are automatically assigned a dmail account. If you don't know how to access your dmail account, go to [www.dixie.edu](http://www.dixie.edu) and select "Dmail" from the left column. To locate your dmail username and password, go to [www.dixie.edu](http://www.dixie.edu), and click on "Log in to student services" or the "My Dixie" button.

Disability: Students with medical, psychological, learning or other disabilities desiring reasonable academic adjustment, accommodations, or auxiliary aids to be successful in this class will need to contact the DISABILITY RESOURCE CENTER Coordinator (Baako Wahabu) for eligibility determination. Proper documentation of impairment is required in order to receive services or accommodations. DRC is located at the ground floor of the Financial Aid Office. Visit or call 652-7516 to schedule appointment to discuss the process. DRC Coordinator determines eligibility for and authorizes the provision of services.

General Disclaimer: Information contained in this syllabus may be subject to change with advance notice, during class time, as deemed appropriate by the instructor.

#### DSC Policy Links:

- Reference to "Policy for Absences Related to College Functions":  
<http://www.dixie.edu/humanres/policy/sec5/523.html>
- Disruptive behavior policy / classroom expectations, academic dishonesty / academic integrity policy:  
<http://www.dixie.edu/humanres/policy/sec3/334.html>

#### DSC Resources:

- Available resources: Library, computer lab, writing center, testing center, tutoring center links
  - Library: <http://library.dixie.edu>
  - Computer labs: Located in the basement of the library, Smith Computer Center, and Udvar-Hazy Building room 200
  - Writing Center: [http://dixie.edu/english/dsc\\_writing\\_center.php](http://dixie.edu/english/dsc_writing_center.php)
  - Testing Center: <http://dixie.edu/testing>
  - Tutoring Center: <http://dsc.dixie.edu/tutoring>