MATH 1040-10   **Fall 2017**

INTRODUCTION TO STATISTICS

CRN# 42120

MWF 12:00 – 12:50PM (SNOW151)

Jan. 9 2017 – May 5 2017 (3 credit hours)

Instructor:	McKay Sullivan	**Email address:**	mckay.sullivan@dixie.edu
Office Room #:	Snow126	**Office Hours:**	9-10AM Daily
Office Phone #:	(435) 652-7647		and by appointment
		eLab Hours:	T and Th 1-1:50PM

REQUIRED MATERIALS:
- MyStatLab access (approximately $105). Access codes for MyStatLab are available for purchase at the Dixie State University Bookstore (located on the second floor of the Gardner Center) or through Canvas (preferred method which I will demonstrate in class). We recommend that you initially sign into MML using the 14-day free trial. Once you feel certain that this is the right class for you, pay for the access.
- OPTIONAL: The textbook: *Statistics: Informed Decisions Using Data (5th edition)* by Michael Sullivan III is available electronically within your MyStatLab account. You may also purchase a loose leaf or hard cover text for reading if desired.
- Technology for this course will be provided in MyStatLab using Statcrunch. A TI 83 or 84 graphing calculator may be useful but **all homework and exams will rely on Statcrunch in MyStatLab.** You may use a calculator on exams.
- Access to the Internet for course homework using MyStatLab. (Computer facilities designated for student use are available throughout campus)
- Access to DMAIL for instructor correspondence.

COURSE PREREQUISITES:
MATH 1010 or MATH 1000 (Grade C or higher) within two years of enrollment in this course; OR ACT or equivalent placement score 23 or higher, or CPT placement score of 89 or higher within two years of enrollment in this course.

COURSE DESCRIPTION: Fulfills General Education Mathematics requirement for students majoring in Communications, Social & Behavioral Sciences, Fine Arts, or Liberal Arts. Introduction to basic concepts and methods used in statistical data analysis, includes descriptive statistics, sampling, and inferential methods while emphasizing problem solving and critical thinking. StatCrunch is used to perform statistical calculations, organize and analyze data, and construct graphs. Required for Utah Level 2 Math Endorsement. Students are cautioned to check degree and/or transfer requirements before taking this course. Course fee required.

Furthermore, Math 1040 is a lecture course with online homework, and tests—including a **comprehensive final exam.** The basic statistical principles learned in Math 1040 can greatly benefit everyone regardless of which future career a person chooses.

COURSE OBJECTIVES: To convey to students the beauty and utility of mathematics, to illustrate some of its applications in modern society as well as to foster reasoning and decision making skills for life.

All classes in mathematics at Dixie State University support the general education goals of the university. Each mathematics class will foster reasoning and decision making skills by
- Employing mathematical techniques in solving computational problems
- Interpreting mathematical models, tables, and graphs
- Construct quantitative and logical arguments
- Apply mathematical knowledge to solve real-world problems
- Communicate in mathematical language through the proper use of notation and terminology
- Explore and analyze mathematical concepts including the use of technology as appropriate

Upon successful completion of Math 1040, a student will demonstrate the ability to
- Compute and interpret descriptive statistics, including mean, median, mode, standard deviation, and interquartile range
- Employ and interpret graphical representations of data
- Construct confidence intervals for population parameters of interest
- Determine the lower-bound for the sample size required for a specified margin of error or to satisfy other pre-determined goals
- Test null hypotheses related to the mean, the proportion or the variance of a sample
- Test null hypotheses related to the difference in mean or the difference in proportion between two samples
- Interpret the results of null hypothesis tests, including the role of significance level α
- Describe both the strength and direction of correlation of bivariate data
- Apply various other statistical tests, including goodness-of-fit tests, and tests for independence of random variables.

ATTENDANCE:
Attendance and participation are essential aspects of the course to facilitate learning and understanding of concepts, terminology, and the use of technology. Students who fail to attend the first scheduled class meeting without notifying the instructor in advance may be administratively dropped by the instructor. Students who fail to attend any classes the first two weeks MUST be administratively dropped by the instructor.

Tardiness is strongly discouraged. Please be courteous in the class and keep your phone silent. It is essential that students attend class, and after the second week, roll will be taken on randomly selected days in order to ensure student attendance. Attendance records may be used in determining borderline grades. Absences due to university-sponsored activities are handled as stated in Dixie State University Policy #5-23. Please refer to

POLICY FOR ABSENCES RELATED TO UNIVERSITY FUNCTIONS:
http://www.dixie.edu/humanres/policy/sec5/523.html

DISRUPTIVE BEHAVIOR POLICY:
It is the responsibility of an instructor to manage the classroom environment to ensure a good learning climate for all students. This means not talking when the teacher is talking, following instructions, and speaking and acting respectfully to the professor and fellow students. If your behavior is disruptive, I will first let you know verbally that you are behaving inappropriately. If it continues, I will send you written notice that your behavior must change. As a last resort, I will drop you from the class.

DISABLITIY RESOURCE CENTER (DRC):
If you are a student with a medical, psychological, or learning disability or think you might have a disability and would like accommodations, contact the Disability Resource Center (652-7516) for further information. The Disability Resource Center (http://dixie.edu/drcenter/) will

determine eligibility of the student requesting accommodations and recommend appropriate and reasonable accommodations related to the disability.

TITLE IX STATEMENT:
DSU seeks to provide an environment that is free of bias, discrimination, and harassment. If you have been the victim of sexual harassment/misconduct/assault we encourage you to report this to the college's Title IX Director, Cindy Cole, (435) 652-7731, cindy.cole@dixie.edu. If you report to a faculty member, she or he must notify the Title IX Director about the basic facts of the incident.

ACADEMIC INTEGRITY:
Please refer to Section 4, Article XI of Dixie State University Policy #5-33.
Policy for student rights and responsibilities:
http://catalog.dixie.edu/codeofstudentrightsresponsibilities/

HOMEWORK:
All homework assignments are to be completed online through MyStatLab. Some homework exercises require students to use StatCrunch (an online data analysis tool located at http://www.statcrunch.com/).

- Homework assignments are due **each week**. Due dates are posted in MyStatLab. (Please also refer to the tentative schedule included in this syllabus for due dates) There will be 15% penalty for late assignments.
- You must score a minimum of 70% on your homework sets in order to access the test associated with those sections.
- You get three attempts to get a problem correct. If after the third attempt you still have not gotten the problem correct, you may request a similar problem to be generated and graded by clicking on the "Similar Exercise" button at the bottom of the homework window. You are encouraged to repeat homework problems and obtain a perfect score before the due date.
- If you do not know how to solve a problem, you may select the "Help Me Solve This", "View an Example", or other help features in the right hand menu in the MML homework window.
- It is very important that you keep current on the assignments.

EXAMS:
- Students are required to achieve a score of 70% or higher on all of the homework sets associated to any given exam prior to taking that exam. *Students who fail to achieve a score of 70% or higher on all of the homework sets associated to a particular exam will receive no credit for that exam.* Please refer to the tentative schedule for tests schedule.
- All exams (including the final exam) are administered in the Dixie State University Testing Center via MyStatLab. There will be four chapter exams and one (comprehensive) final exam.
- Problems on the exams are NOT guaranteed to be like the problems on the homework or review. Expect the exam problems to test the same concepts that the homework problems or review do, but in various settings.
- Make-up exams are given only in extenuating circumstances, and only if prior arrangements are made. The instructor reserves the right to make evaluations on a case-by-case basis.

GRADING:
Homework 20%; Chapter tests 15% each, Final exam 20%

A (94-100%), **A-** (90-93%), **B+** (87-89%), **B** (83-86%), **B-**(80-82%), **C+**(75-79%), **C** (70-74%), **C-**(65-69%), **D+**(60-64%), **D**(55-59%), **D-**(50-54%), **F**(O-49%)

ASSIGNMENTS AND TENTATIVE SCHEDULE:

Course schedules, assignments, and exam dates are subject to change as circumstances dictate. It is the responsibility of each student to attend the class and get the updated info.

	Dates	**Monday**	**Tuesday**	**Wednesday**	**Thursday**	**Friday**
Week 1	Aug 21,23,25	Intro. 1.1		2.1		2.2
Week 2	Aug 28,30, Sep 1	3.1		3.2 HW 1.1, 2.1, 2.2 due		3.2 cont., 3.3
Week 3	Sep 6,8	Labor day		3.4, 3.5 HW 3.1,3.2, 3.3 due	Test 1 open	3.5 cont., 4.1
Week 4	Sep 11,13,15	4.2		Test 1 Review HW 3.4, 3.5, 4.1, 4.2 due		5.1
Week 5	Sep 18,20,22	5.2 Test 1 Review due Test 1 due		5.3 HW 5.1 due		5.4
Week 6	Sep 25,27,29	5.5		5.5 cont., 6.1 HW 5.1, 5.2, 5.3, 5.4 due		6.1 cont.
Week 7	Oct 2,4,6	6.2		6.2 cont. HW 5.5, 6.1 due		7.1
Week 8	Oct 9,11	7.2	Test 2 open	7.2 cont. HW 6.2, 7.1due	Fall Break	Fall Break
Week 9	Oct 16,18,20	Test 2 Review		8.1 HW 7.2 due		8.1 cont.
Week 10	Oct 23,25,27	8.2 Test 2 Review due Test 2 Due		9.1 HW 8.1 due		9.1 cont.
Week 11	Oct 30, Nov 1,3	9.2	Test 3 open	Test 3 Review HW 8.2,9.1 due		9.3
Week 12	Nov 6,8,10	10.1		10.2 HW 9.2,9.3 due Test3 review due Test 3 due		10.3
Week 13	Nov 13,15,17	11.1		11.2 HW 10.1, 10.2, 10.3 due	Test 4 open	11.3
Week 14	Nov 20	Test 4 Review		Thanksgiving break	Thanksgiving break	Thanksgiving break
Week 15	Nov 27,29 Dec 1	12.1		13.1 HW 11.1, 11.2, 11.3 due Test 4 review due Test 4 due	Final exam open	13.1 cont.
Week 16	Dec 4,6,8	Final Review		Final Review HW 12.1, 13.1 due		Final Review
	Dec 12		Final Exam close			

IMPORTANT DATES AND DEADLINES:

https://academics.dixie.edu/academic-calendars/

DMAIL:
You are required to frequently check your Dmail account. Important class and university information will be sent to your Dmail account, including DSU bills, financial aid/scholarship notices, notices of cancelled classes, reminders of important dates and deadlines, and other information critical to your success at DSU and in your courses. To access your Dmail account, visit https://go.dixie.edu/dmail. Your Dmail username is your DixieID (e.g. D00111111) If you have forgotten your PIN, visit https://go.dixie.edu/mydixie and click the Forgot Pin button.

LINKS TO IMPORTANT CAMPUS RESOURCES:
- Disability Resource Center – https://www.dixie.edu/drcenter
- IT Help Desk – https://www.dixie.edu/helpdesk
- Library – https://library.dixie.edu
- Testing Center – https://www.dixie.edu/testing
- Academic Performance and Tutoring Center – https://www.dixie.edu/tutoring
- Writing Center – https://www.dixiewritingcenter.com