

MATH 119: ELEMENTARY STATISTICS

SPRING SEMESTER, 2012; SYLLABUS DATE: 1/10/12
COURSE REFERENCE NUMBER (CRN): 62160
3.0 Units; Tues. and Thurs., 3:55-5:20pm in Room K-301 (Mesa)

INSTRUCTOR: Ken Kuniyuki

Email Address: kkuniyuk@yahoo.com; there is no “i” before the “@.”
My official address is: kkuniyuk@sdccd.edu (esp. for things like applications).

- I usually check my email at least twice a day and my voice mail MTWTh.
- When asking about HW, please let me know what you are thinking about the problem, so I know where to start addressing your question. Please go beyond: “How do you do this problem?” If you do that, I may just give a hint!

Office Voice Mail: (619) 388-2396, checked MTWTh.
Warning: Long messages might get cut off or deleted from the system!

Office Hours: M 4:50-5:50pm, T 6-7pm, W 3:50-5:50pm, Th 6-7pm (see poster online)
in Room H-212, Office F. You are encouraged to discuss any concerns with me.

Mailbox: H-207 (or H-212, which leads to the same room). There is a wooden cabinet consisting of cubbyholes; mine still has my name labels. Technically, K-108B is my “official” mailroom, but it is locked, and students leave messages at K-203.

GET YOUR K-301 COMPUTER LOGIN AND PASSWORD!

By the end of Week 2, you **must** get a **login** and **password** from Room K-401.
Hours: 7:30am-7pm MTWThF. **I do not expect to allow computer use during the exams.**

MY WEB SITE AT <http://www.kkuniyuk.com> (or google my name)

Ready access to the Internet and a printer will be assumed (and will prove very helpful), but the maximum number of course points can be earned without them. Computers and printers are available at the LRC (the Library), especially on the 4th floor. Let me know if you do not have access, or if you encounter errors. We can make hard (i.e., printed) copies of some items.

I expect to post homework assignments (hard copies will be provided in class); **class notes** (mostly typed at first, then mostly handwritten later); **old and current exams and solutions**; class announcements; **tentative schedules**; **tips on test taking and reducing test anxiety**; campus events; and extra links, notes, info, and resources for interested students.

I will try to help you form study groups.

TEXTBOOKS (SEE MY WEB SITE FOR MORE)

- Essentials of Statistics, 4th Edition by Mario F. Triola; Publisher: Addison-Wesley / Pearson Education, 2011. ISBN-10: 0321641493; ISBN-13: 978-0321641496.
Loose-leaf version: 0-321-64167-1. The CD-ROM is **not** required.

This is a blue-white **paperback** with **windmills** on the cover. Make sure you don't get Elementary Statistics, which is the hardcover version of Triola. Make sure you don't get the dark-blue/gold 3rd edition with the dandelion on the cover; the problems are very different. Different statistics classes use different textbooks!

Optional:

- The accompanying Student's Solutions Manual by Milton Loyer. If you want this, make sure you get the one for Essentials of Statistics, 4th Edition. ISBN-10: 0-321-64151-5; ISBN-13: 978-0-321-64151-9. Some students think the back of the textbook is just as good as the manual.

WARNING: THE SOLUTIONS MANUAL HAS MANY ERRORS!

Optional but readable and cheap (available at www.amazon.com and on ebay):

- The Cartoon Guide to Statistics by Larry Gonick; Publisher: HarperResource, 1994. ISBN-10: 0062731025; ISBN-13: 978-0062731029

PREREQUISITE

MATH 096 (Intermediate Algebra and Geometry), with a grade of "C" or better, or equivalent, or Assessment Skill Level M50.

COURSE DESCRIPTION (FROM COLLEGE CATALOG)

This course covers descriptive and inferential statistics. The descriptive portion analyzes data through graphs, measures of central tendency and spread. Other statistical practices utilize basic probability, binomial and normal distributions, estimation of population parameters, hypothesis testing, linear regression and correlation. Analytical reading and problem solving are required for success in this course. This course meets district G.E. requirements. (FT). UC Transfer Course List. Associate Degree Credit & transfer to CSU and/or private colleges and universities. UC Transfer Limitation: MATH 119, BIOL 200 and PSYC 258 combined: maximum credit, one course. CAN STAT 2 = MATH 119 (City, Mesa, Miramar).

STUDENT LEARNING OUTCOMES

Student Learning Outcomes for the math dept.:

“Students who complete the Mathematics program will be able to.....”

- 1) Apply appropriate mathematical definitions, properties, and techniques in a variety of problem solving situations and recognize an appropriate solution as opposed to an unreasonable or extraneous one.
- 2) Demonstrate knowledge of the interrelatedness of the concepts within a particular course and/or among different courses.
- 3) Demonstrate the ability to communicate mathematical reasoning in the context of solving a problem with clarity and detail.
- 4) Choose and apply appropriate mathematical tools to various problems.

Student Learning Objectives from the District’s Course Outline
(I may modify this; I may stress interpretation in #11 and #12.)

Upon successful completion of the course the student will be able to:

1. Organize qualitative and quantitative data into meaningful charts and graphs.
2. Analyze data by comparing and contrasting graphs.
3. Evaluate measures of location, central tendency and variation for grouped and individual samples.
4. Evaluate probabilities using a variety of computational methods including standard counting arguments.
5. Evaluate probabilities using a variety of distributions.
6. Apply the Central Limit Theorem to sampling distributions.
7. Construct confidence intervals for population parameters.
8. Use estimation techniques to determine point estimates, confidence interval and sample size.
9. Perform and analyze hypothesis tests of means, proportions, and variances using both one-and two-sample data sets. [I may only briefly discuss two-sample data sets.]
10. Apply the appropriate Chi-Squared test for independence and goodness of fit.
11. Evaluate correlation to determine the appropriateness of regression models.
12. Compute suitable regression models.

ACCOMMODATIONS; DSPS

Students with disabilities or medical concerns who may need academic accommodations should notify their professors immediately. Check out the DSPS web site at <http://www.sdmesa.edu/dsps> ... or visit the DSPS Office in I3-101, on the first floor of the I-300 building (it is expected to move to the Student Services Building in 2012 when it is completed); it could raise your GPA dramatically!! Phone: (619) 388-2780; for the hearing/speech impaired: (619) 388-2974. Hours: Check their web site and their office; tentatively, M-Th 8-4:30 and F 8-12.

DSPS students should give me test proctoring forms **at least one week** before they take the corresponding exams. I may need to take them home or fill them out in my office.

If you expect to be involved in professional or college activities (e.g., military duty or athletics) that may, for example, hinder your ability to attend class, submit homework, and/or take exams, let me know **as soon as possible** so that accommodations may be made.

ADDITIONAL HELP

Your fellow students! My web site may provide some help.

Students have found tutoring services to be a critical resource!

- **Math and Science Center** (Room I-207(M)). Walk-in tutoring. Hours to be determined. Hours from Fall 2011 were: MTWTh 10am-6pm. Phone: (619) 388-2898. <http://www.sdmesa.edu/math-science-center>
- **STAR Tutoring** (I3-201, on the second floor of the I-300 building; this may change). One-on-one weekly tutoring for eligible students (low income, first generation college, or disabled). Tentative Hours: MTWTh 8am-5pm and F 8am-12 noon. Phone: (619) 388-2706. <http://www.sdmesa.edu/star>

Center for Independent Learning (Learning Resource Center, LRC - "The Library"; 4th floor). Videotapes and DVDs may be available. Library Hours: MTWTh 7am-10pm, F 7am-5pm. Closed: Sat., Sun., holidays. Phone: (619) 388-2769. <http://www.sdmesa.edu/cil>. Library: (619) 388-2695.

Web sites! My web site has links that may prove helpful.

DEADLINES (SEE THE "VERY TENTATIVE SCHEDULE")

Dropping without a "W"; add codes (*)	Fri.	Feb. 3	Week 2
Refund eligibility for dropped classes	Mon.	Feb. 6	Week 3
Pass / No Pass petition	Mon.	Feb. 27	Week 6
Withdrawal deadline (**)	Fri.	Mar. 30	Week 10

Grades available online: Starting **Tues., May 29, 2012**; (<http://studentweb.sdccd.edu>)

(*) Tuition and fees must be paid within two (?) days of adding a course, or by Feb. 3, whichever comes first.

(**) If you do not withdraw from the class by this deadline, I must give you an evaluative grade (e.g., A-F, Pass / No Pass).

GRADES / EXAMS

Bring a **scientific calculator** to all exams on which calculators are allowed. **Graphing calculators will be forbidden**; grade reductions may result from their use. (See **COME TO CLASS WITH / CALCULATOR INFO.**)

There are no guarantees regarding makeup exams. Even if one is allowed, the time allowed to take the exam might be reduced, the exam may be difficult, and the exam might not be returned. If you end up being a “borderline” grade case, makeups may hurt. Testing conditions may be very poor. A student must inform the instructor **as soon as possible** if accommodations need to be made. **Promptly inform the instructor if there is a problem taking an exam; do not expect do-overs of exams to be allowed.**

Points may be deducted for messy work, lateness, failure to adhere to “good form and procedure” as presented in class, and the like!

Your course score will be out of 600 points (600 points = "100%"), divided as follows:

QUIZZES: 400 points (which is about 67% of 600 points)

-- 4 quizzes given, each worth 100 points (about 17% of 600 points)

QUIZ	TENTATIVE MATERIAL
Quiz 1	Up through Section 4-5
Quiz 2	Section 4-6, Chapter 5
Quiz 3	Chapter 6
Quiz 4	Chapter 7
	(The Final covers Chapters 8, 9, 10, and 11.)

The quizzes are “closed book” and “closed notes,” but a **scientific** calculator may be allowed. (See **COME TO CLASS WITH / CALCULATOR INFO.**) Distribution tables will be provided as appropriate.

HOMEWORK (“HW”): 50 points (about 8%)

-- 10 points for each of 5 submissions (corresponding to the 4 quizzes and the Final)

Although you are **strongly** encouraged to do problems as soon as you can, homework will typically be **collected on the day of the corresponding exam**, unless the due date is explicitly postponed.

Turn in HW on time. Expect late HW to be penalized; the last HW must be turned in on time. Expect late HW to lose about two points for being one session late, four points for two sessions, and all points after that.

Make sure you clearly separate sections on your homework! Write your first name, last name, and “Math 119, 3:55pm” on either a title page or on the upper right corner of the first page. Contact me if you want to encode your name for privacy purposes.

Do not turn in a thick, bulky binder. I collect many HWs, and the HW might not be returned to you for a while.

Answers to odd-numbered problems are in the back of the textbook; I will provide answers to even-numbered problems in class. Many “worked-out” solutions are in the Student Solutions Manual, though some say it is no better than the back of the book. It contains many errors. Use it wisely.

On your homework, **show work where appropriate.** Points may be deducted from homework assignments that are turned in late, that are incomplete or illegible or messy, that are plagiarized, or that have insufficient work.

The HW is meant to help you learn and study for exams. For grading purposes, it will be scanned for completeness and overall integrity.

Failure to do homework in a timely manner can wreck your grade in this class - in terms of both points and exam preparation!

CLASS PARTICIPATION and ATTENDANCE: 30 points (5%)

This involves class attendance and promptness, disruptive behavior, and/or participation in office hours (and other forms of communication) and in-class activities and exercises (including R tutorials). **Inform me of any reasons for any absences.**

The final grade in this class will be affected by active participation, including attendance, as follows: **Students who engage in idle talking and other disruptive behaviors can lose up to 10 points here. Everyone else will get the full 30 points,** but this is a reminder that I use class participation as a **key factor in determining grade “borderline” cases.** Many students have their grades influenced by their participation records. Good attendance can be rewarded.

It is VERY important for you to be in class throughout the entirety of the scheduled time. I consider tardiness and premature departures as forms of absences, particularly if habitual; many students are distracted by such behavior. Your attendance and tardiness record may also affect your grade. You must inform me of reasons for absences (including medical priorities and the like) as soon as possible.

Students who miss the first two weeks of class will be dropped.

FINAL: 120 points (20%)

The Final will cover Chapters 8, 9, 10, and 11. It will be given **during the last class session, on Thurs., May 17, in our regular room.**

The Final is “closed book” and “closed notes,” but a scientific calculator may be allowed. (See COME TO CLASS WITH / CALCULATOR INFO.) Distribution tables will be provided as appropriate.

The following are guarantees:

<u>Course score out of 600</u>	<u>Grade guarantee</u>
At least 540 (90%)	A
At least 480 (80%)	B or better
At least 420 (70%)	C or better
At least 360 (60%)	D or better

In other words, I do not reverse curve. The grade cutoffs may be lowered. Percents might not be rounded up! **Class participation will be critical here.**

The course may be taken on a Pass / No Pass basis, but check your program requirements, first. The petition deadline is Mon., Feb. 27 (Week 6).

An “Incomplete” may be given under special circumstances, provided that the student is otherwise passing the course.

ZERO TOLERANCE FOR CHEATING!!

- **I have given ‘0’s on tests due to cheating – it can devastate your grade and your ability to enroll as a student!**
- **Cheating is easier to detect than students think!**
- Possible penalties include assigned scores of “0” and action by the school dean. Refer to Policy 3100 in the Mesa College catalog.
- Collaboration outside of class is encouraged, but **copying is forbidden**, and any attempts to compromise exam security will not be tolerated.

ZERO TOLERANCE FOR IDLE TALKING AND OTHER DISRUPTIONS!!

- Students can **lose up to ten class participation points** in their total course score. Deductions may be determined at the end of the semester.
- ‘Borderline’ grade cases **might not be moved up.**
- **Quick**, appropriate assistance to a neighbor is permitted, **BUT MAKE SURE IT’S QUICK!!**
- Many students are distracted by **WHISPERING!** The holes in the ceiling carry noise very effectively.
- **REMEMBER TO TURN OFF YOUR CELL PHONE!!!**

CLASSROOM BEHAVIOR AND STUDENT CODE OF CONDUCT:

Students are expected to respect and obey standards of student conduct while in class and on the campus. The student Code of Conduct, disciplinary procedure, and student due process (Policy 3100, 3100.1 and 3100.2) can be found in the current college catalog in the section Academic Information and Regulations, and at the office of the Dean of Student Affairs (H-500). Charges of misconduct and disciplinary sanctions may be imposed upon students who violate these standards of conduct or provisions of college regulations.

Disruptive behavior will not be tolerated; disruptive students may be removed from the class and are especially likely to be dropped from the course. Disruptive behavior includes, among other things, inappropriate talking, eating or drinking in class, tardiness, and premature departures. Your grade may be affected. Discuss personal scheduling issues with the instructor. Refer to Policy 3100 in the Mesa College catalog.

COME TO CLASS WITH / CALCULATOR INFO:

- Your K-301 login and password.
- You may want to print out the course notes either before or after a given lecture.
Pdf files can be printed in various ways, including two-pages-to-a-side, double-sided (sometimes, something like 110% scaling for larger typed print can help; other times, text gets cut off, though).
- The appropriate textbook(s), especially the distribution tables, and especially on days when I will answer your HW questions
- **A scientific (not graphing) calculator - you will need one for the course.**
Graphing calculators will be forbidden on exams.

Some sections at City, Mesa, and Miramar (and at Cuyamaca and Grossmont) are more graphing calculator-based; check the online schedule.

Many modern scientific calculator models operate like graphing calculators as far as WYSIWYG (What You See Is What You Get) entry goes. For example, the Sharp EL733A is a good business calculator; the HP 30S has a large display; and the TI-30X IIS (which I have and which I can help you with) can also be good, though it relies on menus.

- Some paper and a pencil or pen: for note taking and in-class exercises
- Homework
We will discuss the homework during part of the session preceding the exam.
The homework is due on exam dates; keep checking our schedule online.

Ø KIDS IN THE CLASSROOM

Children are forbidden in the classroom. Check with the Child Development Center in Building R. Phone: (619) 388-2812. Hours: MTWTh 7:30am-5:00pm, F 7:30am-2:00pm.
Web site: <http://www.sdmesa.edu/cdc>

RESPONSIBILITY TO ADD, DROP, OR WITHDRAW

It is the student's responsibility to drop all classes in which he/she is no longer attending. Students who remain enrolled in a class beyond the published withdrawal deadline, as stated in the class schedule, will receive an evaluative letter grade in this class. If you decide to withdraw from this course, you are reminded to do so by Fri., Mar. 30. It is the instructor's discretion to withdraw a student after the add/drop deadline (Fri., Feb. 3) due to excessive absences (four or more in this class). Keep me informed of your status if you miss several roll calls in a row!

Petitions to add, drop, or withdraw after the deadline will not be approved without proof of circumstances beyond the student's control which made him/her unable to meet the deadline. Lack of money to pay fees is not considered an extenuating circumstance. Students anticipating difficulty in paying fees before the add deadline should check with the Financial Aid Office about sources of funds or other alternatives for which they may be eligible. **Expect "late" adds, drops, and withdrawals to no longer be accepted.**

Please discuss your plans to withdraw from class with your instructors. They may have other options for you that may allow you to continue in class.

INSTRUCTOR ABSENCE (DISTRICT POLICY)

If neither the instructor nor a substitute appears at the beginning of the scheduled class time, students shall wait 15 minutes; if neither the instructor nor a substitute appears within those 15 minutes, students may leave the classroom.

NOTES / CLASS CONTACTS (SEE MY WEB SITE, ALSO)

VERY TENTATIVE SCHEDULE (VERSION 1)

(May be changed arbitrarily; keep checking my web site!)

HW = Homework (and other) questions. I may take questions for a few minutes before a quiz.
(See me in my office hours, email me, or maybe call me whenever you have questions.)

Week (Holidays / Deadlines)	TUESDAY	THURSDAY
1	1/24 (Day 1) Hello / 1-1 to 2-3	1/26 (Day 2) 2-4 / start 3-2
2 Avoid W; Add codes (Fri., 2/3)	1/31 (Day 3) finish 3-2 / start 3-3	2/2 (Day 4) finish 3-3
3 Refund deadline (Mon., 2/6)	2/7 (Day 5) 3-4 / start 4-2	2/9 (Day 6) finish 4-2 / 4-3 / 4-4
4 Holiday (Fri., 2/17 to Mon., 2/20)	2/14 (Day 7) 4-5 / Games	2/16 (Day 8) more Ch.4 / Games / HW
5 Holiday (Fri., 2/17 to Mon., 2/20)	2/21 (Day 9) QUIZ 1	2/23 (Day 10) 4-6
6 Pass / No Pass petition (Mon., 2/27)	2/28 (Day 11) 5-2 / start 5-3	3/1 (Day 12) more 5-3
7	3/6 (Day 13) finish 5-3 / 5-4 / more Ch.5	3/8 (Day 14) start 6-2 / HW
8	3/13 (Day 15) QUIZ 2	3/15 (Day 16) finish 6-2 / 6-3 / start 6-5 (absorbs 6-4)
9	3/20 (Day 17) more 6-5 (absorbs 6-4)	3/22 (Day 18) finish 6-5 / 6-6 / more Ch.6
10 W deadline (Fri., 3/30)	3/27 (Day 19) Start 7-2 (part) and 7-3 / HW	3/29 (Day 20) QUIZ 3
(11 if counted) No classes this week!	4/3 NO CLASS	4/5 NO CLASS
11 (or 12)	4/10 (Day 21) 7-2 (part) and 7-3	4/12 (Day 22) 7-4 / 7-2 (finish)
12 (or 13)	4/17 (Day 23) 7-5 / Polls!	4/19 (Day 24) start 8-2 / HW
13 (or 14)	4/24 (Day 25) QUIZ 4	4/26 (Day 26) finish 8-2 / 8-4
14 (or 15)	5/1 (Day 27) 8-5 / 8-3	5/3 (Day 28) 8-6 / Ch.9, especially 9-4
15 (or 16)	5/8 (Day 29) 11-2 / 11-3	5/10 (Day 30) Ch.10
16 (or 17) Semester ends Sat., 5/19	5/15 (Day 31) Wrap-up / HW	5/17 (Day 32) FINAL

Grades available online: Starting **Tues., May 29, 2012**; (<http://studentweb.sdccd.edu>)