STAT C1000E — LOS RIOS/CRC
INTRODUCTION TO PROBABILITY AND STATISTICS — SPRING 2026
4 UNIT(S) — SECTION # 14213

THIS SYLLABUS WAS UPDATED ON FEBRUARY 19, 2026

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Canvas messaging and email are the most reliable ways to get in touch with the instructor. When emailing, please always specify your real name (the same one as in the roster) and which class you are inquiring about. Emails omitting this information may fail to be processed.

Office: LRC 150, (916) 691-7086, TueThu 9:00 am - 10:15 am, and Fri 9:00 am - 11:30 am. Please let the instructor know if these hours do not work for you, and we can try to set up an appointment (allow 2 business days for reply).

Class Meetings: Library (LIB) 313, MoWe 12:00 pm – 2:50 pm.

Required Text: *Introductory Statistics*, current edition, by OpenSTAX. The students are responsible for accessing the text and reading every section covered in class and/or assigned for homework.

Required Materials/Tech: A computer with R software.

Catalog Description: This course is an introduction to probability and statistics. Topics include: elementary principles and applications of descriptive statistics, elementary probability principles, probability distributions, estimation of parameters, hypothesis testing, linear regression and correlation, and ANOVA. Scientific calculators with two-variable statistics capabilities may be required.

Methods of Instruction: Class meetings will feature a mix of lecture, discussion, quizzes/labs, and group assignments. The instructor may assign students into teams for group assignments, and reassign teams at any time during the semester. Several in-class tests will be given.

Attendance: To succeed in this course, it is crucial that you attend every class session, alert and prepared to learn. Roll will be taken for each class session, usually at the beginning of the class. If you arrive after the class has started, please enter the room quietly and get on the roster at the end of the class. If you miss more than a half of a class session for any reason, you will be considered absent for that whole session. **If you miss total of 6% of class time or more, you may be dropped from the class** (missing one whole week will put you over 6% in most cases). These absences need not be consecutive, and **any** class time you miss may be added to the total. If you ever have to miss class, just keep the instructor in the loop. Communication goes a long way, and will help the instructor to provide you with appropriate support.

By default, only the students enrolled in this class can attend the class sessions. If you are planning on bringing a visitor, you should try to notify the instructor in advance. Exceptions will be made at the instructor's discretion on a case-by-case basis.

https://crc.losrios.edu/admissions/enroll-in-classes/grading-policies-and-academic-regulations

Written Assignments: All written assignments, including but not limited to the homework, tests, labs, and the final, should be done in **dark pencil or pen**; black, **dark gray**, **dark blue**, and **deep purple** are preferred. Fancy colors such as **green**, **red**, or **pink** can only be used to augment graphs and illustrations.

Once assignments are graded, the instructor will bring them to class and distribute them back to students. If you are not present on that day, then you can pick up your graded assignments during the

office hours. All written assignments except for the final exam will be securely destroyed after your class grades are submitted to the district.

Homework: Homework serves as practice and will prepare you to do your best on labs and tests. Homework is crucial for learning the material as well as for succeeding in this class. Doing all homework is probably the most effective way to raise your test grades. You are welcome to work in groups while solving the homework, but you must submit your own work.

Homework in this class is not intended as the primary means of feedback. Students are expected to check and judge their own work by using the answer key (whenever available), verifying answers with technology, and/or discussing the homework with the instructor during office hours. At most, the instructor will only check a very small portion of the homework for accuracy.

Late homework will be accepted with a fixed 5% penalty per day past due. **If submitted in-person, late homework** must be clearly marked as late, and show at the top the date it was originally due, as well as the date it was actually submitted. Without that information, late homework will not be processed.

Labs/Worksheets: In-class assignments will be given out during some class sessions, typically without any advance warning. **There will be no make-ups for labs/worksheets,** but at least 4 lowest scores for these assignments will be dropped before your grade is computed.

Tests: There will be several tests. If you are not present for the test, zero will be entered as your grade for that test. At the instructor's discretion, the following options may be available for making up a test you've missed:

- Using your comprehensive final grade to replace one of your missing test grades.
- Taking a make-up test during the finals week.

Final: The 2 hour comprehensive final exam will be given on the date determined by the official final exam schedule:

`https://crc.losrios.edu/admissions/academic-calendar-and-deadlines/final-exam-schedule`

The final date and time are determined by the College District before the semester starts. You should plan to be present at the final. If your schedule precludes you from being present at the final, you should inform the instructor in writing during the first two weeks of instruction. If you are not present at the final, "F" will be entered as your grade for the class.

Grading:

Grades versus %	
A	90 – 100%
B	80 – 89%
C	70 – 79%
D	60 – 69%
F	0 – 59%

Grade Breakdown	
Homework	10%
Labs/Worksheets	10%
Tests	50%
Project	10%
Final	20%

Extra Credit: One way to get extra credit in this class is to be first to point out a typo or an error in any of the printed materials created by your instructor. The other one is in-class participation.

Getting more than 1% of the total class grade from extra credit is rare. The instructor reserves the right to set or change the maximum allowed amount of extra credit per student, and can do so at any time during the semester.

Getting Help: If you have a question or a concern not addressed in this syllabus, please contact your instructor via email (allow 2 business days for reply). Moreover, the campus provides some resources to help you study:

`https://crc.losrios.edu/student-resources`

Tutoring: Math tutors are available at the Math Center, which helps students to develop confidence and proficiency in their math skills.

`https://crc.losrios.edu/student-resources/tutoring/math-center-at-crc`

Even more support is available at MESA, a program designed to aid underrepresented students in obtaining a calculus-based four-year degree in a STEM field.

`https://crc.losrios.edu/student-resources/mesa`

The CRC Tutoring Center provides academic support services to CRC students for all non-math disciplines.

`https://crc.losrios.edu/student-resources/tutoring`

Computers: The use of computers and tablets during regular class meetings is OK as long as they are used for class work and are completely silent. While taking tests and the final, only the approved non-networked calculators and/or computers running approved software will be allowed. If in doubt, you should consult with the instructor and get your devices pre-approved prior to the test date. **Using tablets or computers for anything but the current assignment in this class may result in you being removed from the classroom until the end of the session, which will count as an unexcused absence.**

Forbidden Tech: Smartphone use is prohibited while the class is in session, unless a specific assignment requires it. In particular, they can never be used as calculators. Computerized watches can be used for showing current time only, and may have to be stowed away during tests. **Using the tech listed above in violation of this syllabus may result in you being removed from the classroom until the end of the session, which will count as an unexcused absence.**

Accommodations: Disability Support Programs & Services (DSP&S) provides equal educational opportunity for students with physical, psychological, or learning disabilities. Counseling, support services, and academic accommodations are provided to students who are eligible for the program.

The Cosumnes River College Learning Disabilities Program can provide support services and academic accommodations to students who have documentation of a specific learning disability from another school or professional. In addition, Diagnostic Assessment may be available for appropriately referred students who come to the DSP&S program for an orientation appointment.

If you have a learning disability, a physical disability, or other special needs, please let the instructor know as soon as possible if you need special accommodations.

Students have the right to request reasonable modifications to college requirements, services, facilities or programs if their documented disability imposes a functional educational limitation or impedes access to such requirements, services, facilities, or programs. A student with a disability who will be requesting modification, accommodation, or access to an auxiliary aid is required and responsible for identifying himself/herself to the instructor and, if desired, to the Disabled Students Programs and Services (DSP&S office). In either event, **the student is responsible for providing appropriate documentation of**

his/her disability before we can accommodate. Students who consult or request assistance from the DSP&S office regarding specific modifications, accommodations or use of auxiliary aid will be required to meet timelines and procedural requirements established by the DSP&S office.

`https://crc.losrios.edu/student-resources/support-services/disability-support-programs-and-services`

Academic Honesty: Any instance of plagiarism and/or cheating will result in the score of zero for that homework, quiz, or test, and will be reported to the Vice President's office.

`https://crc.losrios.edu/about-us/our-values/student-rights-and-responsibilities/plagiarism-and-cheating`

Meta: The instructor reserves the right to make changes to this syllabus throughout the semester. All relevant changes will be announced in class, and an updated version of the syllabus will be published online. Students are responsible for keeping up with these changes.

Student Learning Outcomes: This section is here for reference only. Upon successful completion of this course, the student will be able to

- ORGANIZE, DISPLAY, DESCRIBE AND COMPARE REAL DATA SETS.
  - Recognize data types and data sources: develop basic statistical terminology including population parameters & sample statistics; identify common sampling methods used for obtaining data and identify advantages & disadvantages of each; recognize bias in sampling; compare principles of good experimental design.
  - Organize and display data appropriately by preparing tables and graphs.
  - Analyze data by computing measures of central tendency, measures of dispersion, and measures of position.
  - Analyze bivariate data for linear trends using the least-squares regression model and the correlation coefficient.
- DISTINGUISH BETWEEN PROBABILITY MODELS APPROPRIATE TO DIFFERENT CHANCE EVENTS AND CALCULATE PROBABILITY ACCORDING TO THESE METHODS.
  - Compute probabilities using sample spaces, the addition & multiplication rules, conditional probability, and complements.
  - Develop and apply probability distributions for discrete random variables; compute probabilities and expected value.
  - Analyze both discrete and continuous probability distributions by considering areas under the graph of a function or a histogram.
  - Use the normal and binomial probability distributions to compute probabilities.
- APPLY INFERENTIAL STATISTICAL METHODS TO MAKE PREDICTIONS, DRAW CONCLUSIONS ABOUT HYPOTHESES AND COMPARE POPULATIONS.
  - Create and interpret confidence interval estimates for population mean and population proportion based on appropriate probability models.
  - Select the appropriate hypothesis test, perform the necessary computations and comparisons to test hypotheses about on one population mean or one population proportion and explain the conclusion of the test.
  - Create and interpret confidence interval estimates for the difference in two population means (independent and dependent sampling) or two population proportions.
  - Select the appropriate hypothesis test, perform the necessary computations and comparisons to test hypotheses about two-population means (independent & dependent sampling), more than two population means, and two or more population proportions and explain the conclusion of the test.
  - Test significance of correlation and make predictions based on linear trends using the least-squares regression model.
- USE APPROPRIATE STATISTICAL TECHNIQUES TO ANALYZE AND INTERPRET APPLICATIONS OF DATA including all of the following: business, economics, social sciences, psychology, life science, health science and education.