

Statistics for Science, Spring 2020
CRN 10005
SECTION 100
Tuesday, 5:55 p.m. – 10:00 p.m.
Room: 204

SYLLABUS

Catalog Description Algebra-based statistics for science. Statistical topics include descriptive measures, graphical methods, discrete and continuous probability distributions, estimation, one- and two-tailed hypothesis testing and categorical data.

Prerequisite: [MATH 118](#) or [FNMT 118](#) with a grade of "C" or better or [MATH 161](#) (or higher) placement.

Book: Elementary Statistics by Mario F. Triola, Third custom edition for CCP, Pearson, 2014, ISBN 13: 978-1-269-91518-2

Instructor: Dr. Arkady K. Kitover

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Web Page: <http://faculty.ccp.edu/FACULTY/akitover> ; the web page contains in particular the syllabus and the reviews with detailed solutions for all tests for this course.

ATTENDANCE: According to college rules the students must attend all classes. Moreover, good attendance strongly correlates with the success in this class. It is especially important for classes meeting once a week. By these reasons I will call the roll twice: 20 min. after the class starts and at the end of the class. For each missed roll I will subtract 5 points from your total. If you need to be excused from class send me an email **BEFORE** the class starts. Of course, I will make an exception in the case of an emergency. Students who do not miss any roll or have **DOCUMENTED** excuse for each case of missing the roll will receive 50 extra points added to their total at the end of semester.

Class Rules:

No food is allowed in the classroom. You may bring beverages.

You may not use electronic devices in the classroom for activities not connected with the class work (texting, web browsing, et cetera). I will subtract 10 points from your total sum for each violation of this rule.

The cell phones must be in vibration mode.

During a test you may use your cell phone only as a calculator.

Homework: Homework will consist of six assignments collected at the day of each test. Each assignment is 20 points; the total weight of homework is 120 points.

Examinations: There will be five one-hour examinations, worth 50 points each, and one two-hour final examination, worth 100 points.

Grades: Your grade will be determined by your total score out of 470 (120 for the homework and 350 for the examinations).

A 423 - 470

B 375 - 422

C 374 - 327

D 326 - 279

F less than 279.

COURSE OUTLINE

Summarizing and Graphing Data: Sections 2.2, 2.3

Statistics for Describing, Exploring, and Comparing Data: Sections 3.2 – 3.4

Review 1

Test 1 (50 points)

Probability: sections 4.2 – 4.5 and 4.7

Probability Distributions: Sections 5:2 – 5.5

Review 2

Test 2 (50 points)

Normal Probability Distributions: Sections 6.2 – 6.6

Review 3

Test 3 (50 points)

Estimates and Sample Sizes: Sections 7.2 – 7.5

Review 4

Test 4 (50 points)

Hypothesis Testing: Sections 8.2 – 8.6

Review 5

Test 5 (50 points)

Inferences from two samples: Sections 9.2 – 9.5

Correlation and Regression: Sections 10.2 – 10.4

Test 6 (100 points)

HOMEWORK

Assignment #1

Pages 51 – 52, ## 5, 11, 17

Page 59, ## 5, 7, 9

Pages 90 – 95, ## 9, 13, 17

Pages 107 - 109, ## 9, 13, 25

Pages 124 - 126, ## 9, 17, 21

Assignment #2

Pages 144 – 149, ## 9, 31

Pages 153 – 156, ## 11, 23

Pages 164 – 167, ## 7, 15, 23

Pages 172 – 174, ## 5, 13, 21, 25

Pages 180 – 183, ## 17, 23

Pages 206 – 209, ## 5, 19, 21

Pages 217 – 224, ## 31, 35

Pages 226 – 228, ## 15, 19

Pages 233, ## 9, 11

Assignment 3

Pages 256 – 258, ## 17, 25, 39

Pages 267 – 269, ## 17, 25

Pages 281 – 283, ## 7, 11

Pages 292 – 295, ## 13, 15, 19

Page 304, # 19

Pages 312 – 313, # 13

Assignment 4

Pages 338 – 341, ## 21, 37, 43

Pages 357 – 359, ## 13, 19, 35

Pages 369 – 371, ## 9, 19

Pages 373 – 375, #9

Assignment 5

Pages 397 – 398, ## 9, 17, 25, 29,

Pages 409 – 411, ## 7, 21

Pages 420 – 423, ## 13, 17

Pages 429 – 431, ## 7, 9

Assignment 6

Pages 449 – 451, ## 15, 17

Pages 463 – 465, ## 11, 17

Pages 474 – 476, ## 11, 19

Pages 483 – 487, ## 11, 15

Pages 510 – 515, ## 9, 25

Pages 528 – 530, ## 15, 25

Pages 537 – 538, ## 13, 17