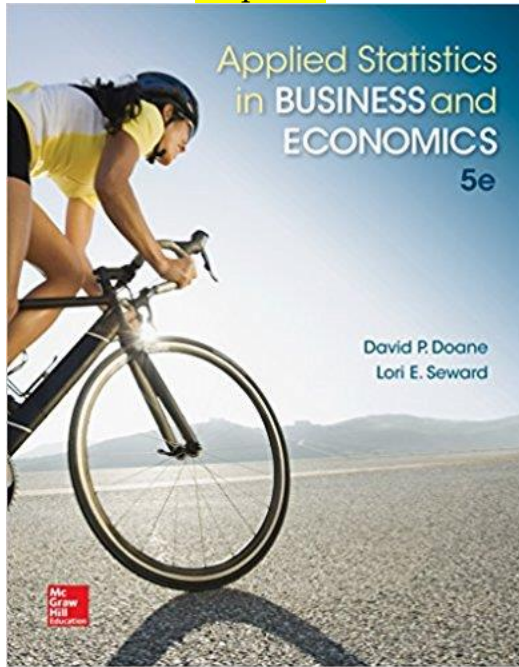


PREREQUISITE:

(MTH 122 or MTH 154) and (STA 225 or STA 226 or QMM 240) with a minimum grade of 2.0 in each course and Sophomore standing.

TEXTBOOK: Required



APPLIED STATISTICS in BUSINESS & ECONOMICS 5th EDITION. McGraw Hill. D. P. Doane & Lori E. Seward. ISBN # 978-0-07-783730-3.

ISBN-13: 978-0077837303

ISBN-10: 0077837304

The “Connect” option that the Publisher offers for purchase won’t be used for our class. If you plan to buy the e-book you may want to consider some other vendor options available outside of Connect.

MegaStat software for Excel is required as part of the materials needed during the semester. Please try the below link to download a free copy of the software with the U/N & PW provided.

http://highered.mheducation.com/sites/0071339604/student_view0/megastat_software.html

U/N: Compute

PW: Compute

Please note also that the classroom assigned is a laboratory type of classroom with available Megastat software installed.

COURSE OBJECTIVES:

Students have to apply their knowledge to make decisions at work and in life. Upon completion of this course, the student should be able to:

- 1) Do Hypothesis testing to compare different statistics and to interpret the analysis results
- 2) Use Statistical software to perform calculations and statistical analysis
- 3) Understand the Analysis of variance, use computer tools to calculate and interpret ANOVA results and understand the assumptions underlying ANOVA
- 4) Estimate a Simple or Multiple Regression and perform appropriate analysis including necessary Hypothesis Test.
- 5) Use regression terminology correctly, analyze bivariate data (scatter plots, correlation, simple regression) and know the assumptions of least squares regression.
- 6) Estimate a multiple regression, perform significant test and interpret the results. Understand the importance of data conditioning, know when a model may be over fitted and why that can be a problem and perform diagnostic test for model adequacy (multicollinearity, residual test, leverage).
- 7) Interpret common process control charts and apply simple pattern recognition rules to detect out of control processes.
- 8) Fit trends and make forecast from time series data using appropriate computer tools.
- 9) Recognize the purposes non-parametric test and perform a few common tests using the computer.
- 10) Use the software and write effective technical reports.
- 11) Develop written communication skills to articulate main concepts in written

CLASS SCHEDULE TOPIC

TENTATIVE
DATE

1 – 1/04	<i>Syllabus & One Sample Hypothesis Test</i> <i>Chapter Nine: 9-1; 9-2 & 9.3</i>
2 – 1/09	<i>One Sample Hypothesis Test.</i> <i>Chapter Nine: 9-4.</i>
3 – 1/11	<i>One Sample Hypothesis Test.</i> <i>Chapter Nine: 9-5</i>
4 – 1/16	<i>Two Sample Hypothesis Test.</i> <i>Chapter Nine: 9.6 & Ten: 10.1 & 10.2.</i>

- 5 – 1/18 **Two Sample Hypothesis Test.**
Chapter Ten: 10.3 & 10.4.
- 6 – 1/23 **Two Sample Hypothesis Test.**
Chapter Ten: 10.5; 10.6 & 10-7.
- 7 – 1/25 **Exam 1: CH 9 & CH 10. (Twenty Five Points)**
Turn in: HW set # 1 for Ch 9 & 10
- 8 – 1/30 **Analysis of Variance**
Chapter Eleven: 11.1 & 11.2.
- 9 – 2/01 **Analysis of Variance**
Chapter Eleven: 11.3 & 11.4.
- 10 – 2/06 **Analysis of Variance**
Chapter Eleven: 11.5 & 11.6.
- 11 – 2/08 **Simple Regression**
Chapter Twelve: 12.1 & 12.2.
- 12 – 2/13 **Simple Regression**
Chapter Twelve: 12.3 & 12.4.
- 13 – 2/15 **Simple Regression**
Chapter Twelve: 12.5 & 12.6.
- 14 – 2/20 **Winter Recess**
- 15 – 2/22 **Winter Recess**
- 16 – 2/27 **Simple Regression**
Chapter Twelve: 12.7; 12.8 & 12.9.
- 17 – 3/01 **Exam 2: Ch 11 & 12 (Twenty Points)**
Turn in HW set # 2 for Chapters 11 & 12
- 18 – 3/06 **Multiple Regression**
Chapter Thirteen: 13.1 & 13.2.
- 19 – 3/08 **Multiple Regression**
Chapter Thirteen: 13.3 & 13.4.

20 – 3/13	Multiple Regression Chapter Thirteen: 13.5 & 13.6.
21 – 3/15	Multiple Regression Chapter Thirteen: 13.7 & 13.8.
22 – 3/20	Time Series Analysis Chapter Fourteen: 14.1 & 14.2.
23 – 3/22	Time Series Analysis Chapter Fourteen: 14.3 & 14.4.
24 – 3/27	Time Series Analysis Chapter Fourteen: 14.5; 14.6 & 14.7.
25 – 3/29	Exam 3: CH 13 & 14 (Twenty Points) Turn in HW set # 3 for Chapters 13 & 14
26 – 4/03	Chi – Square Test Chapter Fifteen: 15.1 & 15.2.
27 – 4/05	Chi – Square Test Chapter Fifteen: 15.3 & 15.4
28 – 4/10	Chi – Square Test & Quality Management Chapter Fifteen: 15.5. Seventeen: 17.2 & 17.3
29 – 4/12	Finish Ch 17.3 & Start Study Guide Review for F.E.
30 – 4-17	Finish Study Guide Review for Final Exam. Note: F.E. will include the sections covered in Ch. 17 (if any).
31 – 4/19	Thursday Scheduled Final Exam. 8 AM to 11 AM

GRADING COMPONENT: Is a simple 100 points scale. It has NO CURVE, nothing else.

Exam scores & grade status and Attendance record, will be kept on an excel file and would be displayed individually to students regularly or upon request.

FINAL EXAM	25%	(25 Points)
THREE EXAMS (25% first, second 20% third 20%)	65%	(65 Points)
SELECTED RANDOM HW (3 HW sets, 2 Points each)	6%	(6 Points)
100% Attendance as recorded on Attendance List signed	4%	(4 Points)

Total **100%** **(100 Points)**

Due to time restrictions, no make-up test will be given.

A	4.0	99 – 100
A	3.9	97 – 98
A	3.8	95 – 96
A	3.7	93 – 94
A	3.6	91 – 92

B	3.5	89 – 90
B	3.4	87 – 88
B	3.3	85 – 86
B	3.2	83 – 84
B	3.1	81 – 82
B	3.0	80

C	2.9	79
C	2.8	78
C	2.7	77
C	2.6	76
C	2.5	75
C	2.4	74
C	2.3	73
C	2.2	72
C	2.1	71
C	2.0	70
F(E)	0.9 AND BELOW	59

D	1.9	69
D	1.8	68
D	1.7	67
D	1.6	66
D	1.5	65
D	1.4	64
D	1.3	63
D	1.2	62
D	1.1	61
D	1.0	60

ATTENDANCE:

Signed attendance on the Attendance list, will be taken and recorded every class. Unexcused absences will have to be justified officially by the University.

MISSED EXAMS:

No make-up test will be given. Emergencies will need to be justified by the *University*. **A score of zero on any missed exam may be recorded on the student's record in the event of failure to produce an official justification of absence during the scheduled days of exams.**

MOODLE

All material relative to the class including HW and communications on topics relative to the class will occur, using Moodle via your OU e-mail account.

LECTURE:

Example problems will be solved & demonstrated using Excel add-in software and some other utilities such as the TI-84 scientific calculator.

HOMEWORK:

HW will be timely posted in Moodle prior to class. HW turn in requirements:

- a) HE should be typed in, preferable or at least neatly/clearly written
- b) The hard copy being turned in must be properly stapled.
- c) HW must contain the name of the student to receive credit.
- d) Every problem in the HW must have & all necessary work and computations needed to reach the answer. HW containing only answers or incomplete work will receive no credit.
- e) No late HW will be accepted.
- f) Students turning in dubious HW may be required to explain the solving procedure verbally.

PARTICIPATION IN CLASS:

Participation in class is encouraged. If a student participates solving a problem, the student will get one additional point.

CLASSROOM CONDUCT:

If you have to take or make a cell phone call, please leave the classroom. No texting during class is allowed. Being on time and not disrespectful in class, is encouraged.

Coming late to class or leaving class earlier may be noted and the student may be required to explain the reason why.

GRADES:

Final grades will be reviewed on the last day of class on an individual basis (one on one). After the one on one review, each student will know exactly his/her final grade. It is in the best interest of the student not to leave the classroom on the last session before knowing final grades.

DISCLAIMER

The instructor reserves the right to make changes to the syllabus as needed or required. The School & University policies regarding Weather, etc., are in full force and will be observed.