

ECON 5023-104: Statistics for Decision Making

Course Description:

The course is designed to give the student a working knowledge of the statistical techniques used to solve practical problems in economics and business. While the statistical theory will be covered, the practical application of this theory will be stressed by way of examples drawn from various fields in economics.

Class Dates, Location and Hours:

Dates: September 22 -24 & 29 – October 1, 2017
Location: OCCE, Norman, Oklahoma. Classes are held at the Thurman White Forum Building of OCCE, 1704 Asp Avenue.
Hours: Friday 5:30-9:30 p.m.; Saturday 8:30 a.m.-4:30 p.m.; Sunday 1:00-5:00 p.m.
Last day to enroll or drop without penalty: August 24, 2017

Site Director:

Email: apnorman@ou.edu. Phone: 405-325-3333.

Professor Contact Information:

Course Professor: Alexander B. Holmes, Ph.D.
Mailing Address: University of Oklahoma
Economics Department
308 Cate Center Drive
Room 158, CCD 1
Norman, OK 73019
Telephone Number: (405) 325-2861
Email Address: aholmes@ou.edu
Professor availability: The professor will be available via email to students before and after the class sessions. On-site office hours are half an hour before and after each class session, by appointment.

Textbook(s) and Instructional Materials:

1. OpenStax (2015). *Introductory Statistics Oklahoma Version*. The textbook is open access and is free. It can be downloaded as a PDF document from my web page at the economics department: <https://sites.google.com/site/alexanderholmesou/classes> (labeled ElementaryStatisticsTextOpenStax.pdf) or through Janux.ou.edu. Please read the material under Janux course on my web page for details of access of course videos, examples of exams and examples of statistics and probability problems as well as an alternative access to text.
2. This course will include the use of videos, please log on to <https://janux.ou.edu/app/> and sign in using your OUNetID and password. Once you are signed in, select Add Courses and then “enroll” in Elementary Business Statistics by Dr. Alexander Holmes. This is **not** your enrollment in the class for credit: that takes place with your regular enrollment procedure. Enrollment on the Janux website simply gives you access to the course material and textbook and is open access and free.
3. Homework assignments are provided with an answer key on Holmes web site listed above at #1. You are asked to read the text, review the Janux videos and then attempt the homework problems. You can then check your work with the answer key. These homework exercises are not to be turned in for credit.

Course Objectives:

Upon completion of the course, students should have a working knowledge of a variety of probability density functions including binomial and the normal. They will have developed the ability to create confidence intervals for estimating the mean and proportion of an unknown population distribution. Students will be able to formulate hypotheses concerning the mean and differences in variances. Students will understand the theory underlying linear regression techniques and be able to interpret the results of a linear regression analysis.

Course Outline:

- I. Descriptive Statistics, Basic Probability and Probability Distribution, Chapters 1-6
- II. Central Limit Theorem, Point and Interval Estimation, Chapters 7-8
- III. Hypothesis Testing, Chapter 9
- IV. More Hypothesis Testing, Chapter 10
- V. Even More Hypothesis Testing, Chapter 11
- VI. Simple and Multiple Regression and Correlation, Chapters 13

Assignments, Grading and Due Dates:

Non – Graded Problem Set:

Non-graded problem set due prior to 1st Session

Final Examination:

Last class session

Post Seminar Assignment:

Students will develop a test of hypothesis of any test of their choice. Options chosen by past students include tests on activities in their field of work. The assignment will be discussed at length at the first class session. The paper is to be sent by email to aholmes@ou.edu. Be sure to include a cover sheet with the date of this class and location.

Grading:

This is a letter-graded course: A, B, C, D, or F.

Assignment	Due Date	Percent of Grade
Problem Set	Prior to 1 st class session	Required
Final Examination	Last class session	85 %
Post Seminar Assignment	October 22, 2017	15 %

Notice: Failure to meet assignment due dates could result in a grade of I (Incomplete) and may adversely impact Tuition Assistance and/or Financial Aid.

POLICIES AND NOTICES

Attendance/Grade Policy

Attendance and participation in interaction, individual assignments, group exercises, simulations, role playing, etc. are valuable aspects of any course because much of the learning comes from discussions in class with other students. It is expected that you attend all classes and be on time except for excused emergencies.

Excused absences are given for professor mandated activities or legally required activities such as emergencies or military assignments. It is the policy of the University to excuse absences of students that result from religious observances and to provide without penalty for the rescheduling of examinations and additional required class work that may fall on religious holidays. Unavoidable personal emergencies, including (but not limited to) serious illness; delays in getting to class because of accidents, etc.; deaths and funerals, and hazardous road conditions will be excused.

If you are obtaining financial assistance (TA, STAP, FA, VA, Scholarship, etc.) to pay all or part of your tuition cost, you must follow your funding agency/institution's policy regarding "I" (Incomplete) grades unless the timeline is longer than what the University policy allows then you must adhere to the University policy. Students who receive Financial Aid must resolve/complete any "I" (Incomplete) grades by the end of the term or he/she may be placed on "financial aid probation." If the "I" grade is not resolved/completed by the end of the following term, the student's Financial Aid may be suspended making the student ineligible for further Financial Aid.

Students are responsible for meeting the guidelines of Tuition Assistance and Veterans Assistance. See the education counselor at your local education center for a complete description of your TA or VA requirements.

Academic Integrity and Student Conduct

Academic integrity means honesty and responsibility in scholarship. Academic assignments exist to help students learn; grades exist to show how fully this goal is attained. Therefore all work and all grades should result from the student's own understanding and effort.

Academic misconduct is any act which improperly affects the evaluation of a student's academic performance or achievement. Misconduct occurs when the student either knows or reasonably should know that the act constitutes misconduct. Academic misconduct includes: cheating and using unauthorized materials on examinations and other assignments; improper collaboration, submitting the same assignment for different classes (self-plagiarism); fabrication, forgery, alteration of documents, lying, etc...in order to obtain an academic advantage; assisting others in academic misconduct; attempting to commit academic misconduct; destruction of property, hacking, etc...; intimidation and interference with integrity process; and plagiarism. All students should review the Student's Guide to Academic Integrity at http://integrity.ou.edu/students_guide.html

Students and faculty each have responsibility for maintaining an appropriate learning environment. All students should review policies regarding student conduct at <http://studentconduct.ou.edu/>

Accommodation Statement

The University of Oklahoma is committed to making its activities as accessible as possible. For accommodations on the basis of disability, please contact your local OU Site Director.

Adjustment for Pregnancy/Childbirth-Related Issues

Should you need modifications or adjustments to your course requirements because of documented pregnancy-related or childbirth-related issues, please contact me as soon as possible to discuss. Generally, modifications will be made where medically necessary and similar in scope to accommodations based on temporary disability. Please see <http://www.ou.edu/content/eoo/faqs/pregnancy-faqs.html>.

Title IX Resources

For any concerns regarding gender-based discrimination, sexual harassment, sexual misconduct, stalking, or intimate partner violence, the University offers a variety of resources, including advocates on-call 24/7, counseling services, mutual no-contact orders, scheduling adjustments, and disciplinary sanctions against the perpetrator. Please contact the Sexual Misconduct Office at smo@ou.edu or (405) 325-2215 (8-5), or the Sexual Assault Response Team at (405) 615 -0013 (24/7) to report an incident. To learn more about Title IX, please visit the Institutional Equity Office's website at <http://www.ou.edu/content/eoo.html>

Course Policies

Advanced Programs policy is to order books in paperback if available. Courses, dates, and professors are subject to change. Please check with your OU Site Director. Students should retain a copy of any assignments that are mailed to the professor for the course. Advanced Programs does not provide duplicating services or office supplies.

Any and all course materials, syllabus, lessons, lectures, etc. are the property of professor teaching the course and the Board of Regents of the University of Oklahoma and are protected under applicable copyright.

For more information about Advanced Programs, visit our website at: <http://www.goou.ou.edu/>

INSTRUCTOR VITA

Alexander Holmes, Ph.D.

Education

1970 Ph.D. in Economics, SUNY/Binghamton

Current Positions

- Advanced Programs Professor since 1974
- Regents Professor of Economics, University of Oklahoma

Frequently Taught Advanced Programs Courses

- ECON 5453 Urban Economics
- ECON 5023 Statistics for Decision-Making

Major Areas of Teaching and Research Interest

- Microeconomic Principles
- Statistics
- Applied Public Policy Research

Representative Publications and Presentations

- “An analysis of the presumptions of circuit breaker statutes,” (with Thomas J. Parliment), *The Appraisal Journal*, Vol. XLVI, No. 4, (October 1978), pp. 499-508
- “Union activity and teacher salary structure,” *Industrial Relations*, 18, No. 1, (February, 1979), pp. 79-85.
- “The Oklahoma Ethics Commission: Toward greater confidence in the public sector,” and “Tort reform and insurance rates,” *State Policy and Economic Development in Oklahoma: 1986*, Oklahoma 2000, Inc., December 1986.
- “State government finance in Oklahoma after SQ-640,” *State Policy and Economic Development in Oklahoma: 1994*, with Donald Murry, Kent Olson, and Larkin Warner, Oklahoma 2000, Inc.
- *Ethics in higher education: Case studies for regents*, University of Oklahoma Press, 1996.
- *The search for limited government: lessons from Oklahoma public finance*, with Donald Murry, Kent Olson, and Larkin Warner, Oklahoma 2000, Inc., 1997.

Representative Honors and Awards Received

UOSA Professor of the Year, 1997