<u>Present:</u> Scott Cummings, Gary Briers, Kim Dooley, Jack Elliot, Julie Harlin, James Lindner, Lori Moore, John Rayfield, Theresa Murphrey, Robert Strong, Jennifer Williams, Gary Wingenbach, Tim Murphy, Clarice Fulton

<u>Not Present:</u> Barry Boyd, Chanda Elbert, Deborah Dunsford, James Christiansen, Alvin Larke, Landry Lockett, Manual Pina, Tracy Rutherford, Jeff Ripley, Glen Shinn, Andy Vestal

<u>Guest:</u> We welcome, Sean Kalundu joining us rom Namibia. He will be co-teaching a course this fall and next spring with Dr. Theresa Murphrey and Dr. Wash Jones from Prairie View University as a scholar in resident with Fulbright.

Action/Discussion Items

1) Approval of Minutes from the June meeting.

Motion was made by John Rayfield, Seconded by Gary Biers to "Approve the June minutes as written." Motion passed unanimously.

- 2) Graduate Curriculum Committee Report Gary Briers
 - a. Faculty "Stewardship" of Course Rotation (Attachment A)
 - 1. International Ag Course Rotation Manuel Pina Dr. Pina not present. No report at this time.
 - 2. Graduate Curriculum Assessment Tim Murphy

Dr. Murphy informed all that Holly Jarvis has been hired as a graduate assistant to work with Dr. Barry Boyd. Dr. Boyd has been leading a review of the undergraduate curriculum. A review of the graduate curriculum will be included in this process. This assessment will help with the information for the Weave Online, outcomes, measurability of assessment.

3) Graduate Course Syllabi on ALEC Web Page - Tim Murphy

Open discussion. Look into possibly placing graduate course syllabi on the Howdy Portal similar to the undergraduate process. More discussion at next meeting. (Update since meeting – Clarice has contacted the Assistant Registrar, Andy Armstrong. It is in the works to gain approval and allow graduate course syllabi to be uploaded on the Howdy Portal. He indicated possible access by the end of May 2012 or before).

4) Spring 2012 Course Schedule (Attachment B) – Tim Murphy

Review and open discussion of current courses with no teaching assignment. Dr. Strong volunteered to teach ALEC 695 online section along with the campus section. Dr. Wingenbach volunteered to teach ALEC 641, however, switch the time. Dr. Harlin offered to teach the ALEC 681 Seminar, but the current time will not work with her schedule. It was mentioned that the ALEC 681 topics are rotated and Leadership was next in line. No faculty in Leadership emphasis agreed to teach at this time. This has not been resolved.

Dr. Scott Cummings requested the opportunity to teach the ALEC 625 as a face-to-face campus section. It was suggested to include Dr. Chanda Elbert in the conversation as she is steward for the course. Dr. Cummings will contact her.

Changes will be updated on the schedule and submitted to Registrar.

5) Possible course added to Course Research Sequence – James Lindner/Tim Murphy

STAT 641 Syllabus (Attachment C)

Open discussion. It was mentioned that several graduate students have asked about using STAT 641 and STAT 642 as part of the required ALEC research sequence. These courses are reserved for STAT majors, and normally difficult to access.

Motion was made by Scott Cummings, Seconded by Julie Harlin to "To add STAT 641 and STAT 642 to the approved research course list used for advising students." Motion passed unanimously. Research advising sheet will be updated.

6) Faculty Workload Committee Report (Attachment D) - Kim Dooley

This report has been moved to announce at the Departmental meetings, however, Dr. Kim Dooley wanted to provide a report one more time to Graduate Faculty before announcing at next Departmental meeting. Handout distributed. Dr. Kim Dooley has asked to provide feedback to her as soon as possible and she will prepare the report for the faculty meeting.

7) Graduate Faculty meeting dates, Fall semester – Tim Murphy

All agreed to change fall and spring semester Graduate Faculty meetings to the "last Monday of the month" with the exception of December. Faculty will revisit scheduling summer meetings in April.

Old Business

- 1) Five year course rotation (Attachment E) **No changes at this time.**
- 2) Departmental By-Laws Tim Murphy No report at this time.

New Business

- 1) Graduate Assistants in summer Discussion at next meeting.
- 2) Official GRE Scores received late in November

Open discussion in reference to the new GRE test. ETS has indicated that official GRE scores for individuals taking the test now up until November will not be received until after November 9, 2011. The current spring 2012 deadline for review is October 1. Applicants trying to meet this spring 2012 deadline would be affected. Dr. Julie Harlin suggested holding two separate admission meetings to allow those with delayed GRE score reports to be reviewed for spring 2012.

All agreed to delay the October 1 deadline until November 18, 2011, and conduct a separate admissions meeting for those with delayed scores, for spring 2012 applicants. Admission review meetings will be scheduled within two weeks after these deadlines (10/1 and 11/18).

Informational Items

- 1) Deborah Dunsford approval to Graduate Faculty
- 2) Graduate Student Funding

Dr. Tim Murphy discussed the current graduate student funding available. The University, OGS, no longer provides funding for Masters Student Tuition. The College and ALEC will provide tuition support for fall 2011; and almost certainly spring 2012. It is quite possible ALEC will need to find funding for Masters students in fall 2012. All new Master's Students on Departmental funds will be on 9-month contracts Summer teaching opportunities may be possible. Funding for all doctoral student tuition continues to be provided by OGS. There are rumors that may change. Assistantship offers may need to be adjusted.

- 3) Dr. Elliot offered some informational items
 - a. Faculty teaching ³/₄ of faculty will have 11 months funded. He compliments Dr. Kim Dooley on the work she did on the faculty teaching load report. Is there a summer compliance report? Yes however, it does not count.
 - b. The work that Holly Jarvis is doing assessing curriculum is very critical. We need to know what our core courses are.
 - c. Contract letters He is not be given permission to give letters out yet. Should be soon. If you have concerns, please make an appointment with Dr. Elliot.
 - d. Summer 2012 Teaching Department Heads have asked for a plan. No answer yet.
 - e. Dr. Elliot is open to recording additional measures, along with Departmental averages, on annual review letters. The Dean requests Departmental averages. If concerned, make an appointment with Dr. Elliot.

Upcoming Events

September 8, 2011 September 16, 2011 September 23, 2011 October 29, 2011 January 4-6, 2012 – TAMU host AGSS BBQ, Dr. Elliot home, 7:01 pm Prospective Graduate Student Day Grand Opening Celebration Centennial Tailgate NCAC-24 Meeting

Future Graduate Faculty Meetings

September 26, 2011, 2:00 pm, AGLS 129 October 31, 2:00 pm, AGLS 129 November 28, 2011, 2:00 pm, AGLS 129 No December meeting - Happy Holidays! January 30, 2012, 2:00 pm, AGLS 129 February 27, 2012, 2:00 pm, AGLS 129 March 26, 2012, 2:00 pm AGLS 129 April 30, 2012, 2:00 pm, AGLS 129

Grad Course Sequencing ATTA Department of Agricultural Leadership, Education, & Communications

o = odd years; $e = e$	even years	
Fall Course and T	itle	Steward
ALEC 602 (o, e)	Advanced Instructional Design in Agricultural Science	Harlin
ALEC 605 (o, e)	Facilitating Complete Secondary Agricultural Science Programs	Rayfield
ALEC 606 (o, e)	Leadership Education Theory	Elbert
ALEC 610 (o, e)	Principles of Adult Education (Web-based)	Lindner
ALEC 611 (0, e)	Advanced Methods in Distance Education (Web-based)	Dooley
ALEC 615 (0, e)	Philosophy of Agricultural Education (Web-Enhanced)	Murphy
ALEC 618 (0, e)	(Proposed course) Cross Cultural Perspectives on Leadership	Elbert
ALEC 621 (0)	Methods of Online Survey Research in Agricultural Science	Wingenbach
ALEC 623 (o, e)	Survey of Evaluation Strategies for Agriculture (Web-based)	Murphrey
ALEC 624 (0, e)	Developing Funded Research Projects	Pina
ALEC 640 (o, e)	Methods of Technological Change (Web-based)	Murphrey
ALEC 644 (0)	The Agricultural Advisor in Developing Nations	Shinn
ALEC 646 (e)	Institutions Serving Agriculture in Developing Nations	??
ALEC 681 (0, e)	Seminar (topics change by semester; can be taken more than once)	
ALEC 690 (o, e)	Theory of Agricultural Education Research (Basic Quant)	Briers
ALEC 691 (0, e)	Research for MS/PhD	
ALEC 692 (0, e)	Research for EdD	
ALEC 693 (0, e)	Professional Study for MAg	
ALEC 695 (0, e)	Frontiers in Research (Campus & Web-based)	??

Spring Course and	Title	Steward
ALEC 601 (0, e)	Advanced Methods in Agricultural Education	Murphy
ALEC 602 (o, e)	Advanced Instructional Design in Agricultural Science	Harlin
ALEC 604 (o, e)	Writing for Professional Publication	Rutherford
ALEC 605 (o, e)	Facilitating Complete Secondary Agricultural Science Programs	Rayfield
ALEC 608 (o, e)	Leadership of Volunteers	Lockett
ALEC 609 (o, e)	Learning Organizations	Moore
ALEC 612 (0, e)	Advanced Instructional Design for Online Learning (Web-based)	Murphrey
ALEC 613 (0, e)	Techniques in eLearning Development & Delivery (Web-based)	Strong
ALEC 620 (e)	Instrumentation and Survey Research Methods	Lindner
ALEC 622 (0, e)	Data Analysis, Collection, and Interpretation	Briers
ALEC 625 (o, e)	Program Evaluation & Organizational Accountability (Web-based)	Elbert
ALEC 630 (o, e)	Guidance and Counseling for Rural Youth	Larke
ALEC 640 (o, e)	Methods of Technological Change	Murphrey
ALEC 641 (0, e)	The Transfer of Technology by Institutions	Wingenbach
ALEC 645 (0)	Initiating, Managing & Monitoring Projects of International ADEV	Shinn
ALEC 652 (0)	Images of Agriculture: Visual Communication Research	Rutherford
ALEC 681 (0, e)	Seminar (topics change by semester; can be taken more than once)	
ALEC 691 (0, e)	Research for MS/PhD	
ALEC 692 (o, e)	Research for EdD	

ALEC 693 (o, e)	Professional Study for MAg	
ALEC 695 (o, e)	Frontiers of Research	
ALEC 696 (o, e)	Qualitative Research Methods (Campus & Web-based)	Dooley

Summer Course ar	nd Title	Steward
ALEC 603 (o, e)	Experiential Learning	Rayfield
ALEC 607 (o, e)	Youth Leadership Programs (Web-based)	Boyd
ALEC 617 (o, e)	Leadership in Organizational Culture & Ethics	Williams
ALEC 616 (o, e)	Facilitation of Leadership Programs	Moore
ALEC 625 (e)	Program Evaluation & Organizational Accountability (Web-based)	Elbert
ALEC 631 (o, e)	Development and Planning of Community Education Programs	Cummings
ALEC 646 (0)	Institutions Serving Agriculture in Developing Nations	??

This document is intended for planning purposes. Course offerings are subject to change and it is recommended that students visit with their advisors and course instructors to determine exact offerings for specific semesters.

Last Updated, June 2011

	Spring 2012 Class Schedule ATTACHEMENT B								
Name	Prog.	Course #	Sect. #	Hrs.	Days	Time	Seats	Room	Notes
Murphy	ALEC	601	600	3	W	4:10-7:10	12	AGLS 117	
Harlin	ALEC	602	600	3	MW; F	9:10-10:00 am; F 10-11:50 am	12	AGLS 117 AGLS 132	
Rutherford	ALEC	604	600	3	W	3-6	12	AGLS 132 AGLS 113	
Rayfield	ALEC	605	600	3	MW; F	8:00-8:50 am; 8:00-9:50 am	12	AGLS 132	
Moore	ALEC	606	600,700,720	3	N/A	online	10	A010 132	D@D cohort 5
Locke	ALEC	608	600	3	M	1:50-4:50	10	AGLS 109	
Moore	ALEC	609	600	3	Т	2:20-5:20	12	AGLS 109	
Murphrey	ALEC	612	600,700,720	3	N/A	Online	10,7,3		
Strong	ALEC	613	600,700,720	3	N/A	Online	10,7,3		
Lindner	ALEC	620	600	3	W	4:10-7:10	12	AGLS 109	
Briers	ALEC	622	600	3	M	4:10-7:10	12	AGLS 117	
Elbert	ALEC	625	600,700,720	3	N/A	Online	12		
Cummings	ALEC	625	601	3	Т	3:55-6:66 pm	12	AGLS 113	
Larke	ALEC	630	600	3	Т	6-9 pm	12	AGLS 109	
Lindner	ALEC	640	650	3	N/A	Study Abroad-Costa Rica	10		Mini-mester (Jan)
Lindner	ALEC	640	651	3	N/A	Study Abroad-Trinidad-Tobago	10		Spring Break
Murphrey	ALEC	640	600,700,720	3	N/A	Online	10,7,3		
Wingenbach	ALEC	641	600	3	М	3:30-6:30	12	AGLS 113	
STAFF	ALEC	681	600	1	F	10:20-11:10	25	AGLS 115	
Williams	ALEC	689	600	3	R	2:20-5:20	12	AGLS 109	
Murphrey	ALEC	689/489	601/506	3	MW	12:40-2:40	15	AGLS 117	
Strong	ALEC	695	600,700,720	3	N/A	Online	10,7,3		
Strong	ALEC	695	601	3	R	3:55-6:55 pm	15	AGLS 113	
Dooley	ALEC	696	600,700,720	3	N/A	Online	6,6,1		

STATISTICS 641 Methods of Statistics, I Fall 2010

Time and Place: MWF 9:10 a.m. - 10:00 p.m., BLOCKER 457 or Dostat

Instructor: Dr. Michael Longnecker

Office: 404C Blocker Building

Phone: 979-845-3141 (Office) and 979-690-0553 (Home-Before 9 p.m.)

Email: longneck@stat.tamu.edu

Office Hours: MTWRF: 10:30-11:30 or by appointment.

Prerequisites: 610 or 630 or Concurrent enrollment in STAT 610 or STAT 630.

Focus of Course: STAT 641 is intended for statistics graduate students who are planning a career as an applied statistician. The course will provide an introduction to data analysis and a wide-variety of statistical inference techniques. There will be a demonstration of the interplay between probability models and statistical inference.

Grader for Course: Ming Lu, email address - alicia@stat.tamu.edu

Handouts: Lecture notes will be provided at the class DoStat website under Files.

Text: Statistics and Data Analysis from Elementary to Intermediate by Tamhane & Dunlop - Errata: www.prenhall.com/tamhane.

References:

- 1. Bootstrap Methods and Their Applications, by A. Davison and D. Hinkley
- 2. Nonparametric Statistical Methods, 2nd Ed., by M. Hollander and D. Wolfe
- 3. Categorical Data Analysis, 2nd Ed., by Alan Agresti
- 4. Statistics for Experimenters, 2nd Ed., by G. Box, W. Hunter, and S. Hunter
- 5. SAS and R by Ken Kleinman and Nicholas Horton
- 6. The R Book by Michael Crawley

Computing: Data sets will be analyzed using SAS and R software packages. These software packages are available on the department's computer network.

- 1. Information for obtaining a copy of SAS is provided on Dostat under "Links".
- 2. For free copy of R go to http://www.r-project.org
- 3. Contact Kim at kritchie@stat.tamu.edu if you have problems obtaining software.

Homework:

Homework will be regularly assigned and collected. I will select a subset of the assigned problems for detailed grading. In this course, the methods of solving a problem are as important as the final solutions. Homework should therefore be detailed enough to adequately demonstrate your method of solution. You may discuss the homework problems with other students, but you should write up your solutions independently. **Do not copy other students' solutions or submit solutions copied from other books/sources.**

Exams:

There will be two mid-term exams and a comprehensive final exam. The mid-term exams are (tentatively) scheduled for Wednesday, October 6 and November 10. The final exam will be given on Monday, December 13 from 8 am to 10 am. Students enrolled in Sections 700 and 720 will take the exams on these dates under the supervision of a proctor. Information concerning proctors will be posted on Dostat.

Course Grade:

The course average will be determined from homework assignments: 20%; the two mid-term exams: 25% each; and the final exam: 30%. Your course grade will have the following minimal standards (PP is your overall Percentage Performance)

$90\% \le PP \le 100\% \Rightarrow A;$	$80\% \le PP < 90\% \Rightarrow B;$	$70\% \le PP < 80\% \Rightarrow C;$
$60\% \le PP < 70\% \Rightarrow D;$	$0\% \le PP < 60\% \Rightarrow F;$	

A course average from 90 to 100 will be an A, from 80 to 89.9 will be a B, from 70 to 79.9 will be a C, from 60 to 69.9 will be a D, and 59.9 and below will be an F. In past semesters, there has been a curve which may lower the boundaries for A and B. The lowering of the boundaries may not be uniform for each of the letter grades. There will be a *fuzzy area* between each letter grade in the final grade distribution. Thus, two students having the same average overall course score may receive different letter grades. Whether or not a student receives the higher grade depends on three factors: (1) Consistency in submitting homework assignments, (2) Level of participation in class activities, and (3) An improving performance on examination scores across the semester.

Make-up Policy:

Make-up of missed homework and/or exams will be allowed only for university approved reasons. The **Course Instructor** must be notified of the absence as soon as possible. If the absence is approved, then the average score on the submitted homework will be used for the missed homework and the final exam grade will be used as the grade for the missed exam, that is, the final exam will be worth 55% of the course grade.

Incomplete Grade:

A temporary grade of I (Incomplete) at the end of a semester indicates that the student has completed the course with the exception of a major quiz, final exam, or other work. The instructor shall give this grade only when the deficiency is due to an authorized absence or other cause beyond the control of the student.

Discussion Board:

There will be a discussion board available at the DoStat website for posting questions. Be sure to make use of this resource for posting your questions and reviewing other students questions. I will not reply to individual email questions about homework or exams. It is much more efficient to post these questions at the discussion board. I will reply to email involving a personal issue. The degree of your participation on the Discussion Board will be a part of your class grade.

Q/A Session:

There will be a question and answer session every Tuesday night at 6 pm online and in Room 411. The session will continue until all questions have been answered or 7:30 pm at the latest. We will have both on campus students and DL students involved in these sessions by using centra. This is a volunteer session in which you can ask questions about lecture topics, homework, and exams. These sessions will be recorded so you will be able to view them if you are unable to attend. However, without a strong attendance at the Q/A sessions there may not be many Questions for me to Answer.

Access to Dostat:

All of the information for the course will be accessible on the course website. This will include streaming videos of each of the lectures. To access the website, you will need to register according to the following instructions:

- 1. Go to http://dostat.tamu.edu/dostat and click on the REGISTER HERE link if you have not previously registered. If you have previously registered, continue with step 3.
- 2. Fill in all of the information and click on SUBMIT .
- 3. Log into http://dostat.tamu.edu/dostat using the information entered in step 2.
- 4. Click on the Add Course link to the left.
- 5. Fill in the Course Reference "DS-74" and Registration Code "stat641fall2010" and press Register . The codes are the characters within the quotes, but do not include the quotes.
- 6. Click on the course name to access the materials.

After you have registered, take a look at the resources. The recorded lectures will be found under "Videos". Under "Files" you will find the lecture notes, homework assignments, R/SAS code and examples that are used in the class.

STATEMENT ON DISABILITIES: The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation for their disabilities. If you believe you have a disability requiring an accommodation, please contact the Office of Disabilities Services in Room B118 in Cain Hall. Their phone number is 845-1637. For additional information visit http://disability.tamu.edu.

COPYRIGHT NOTICE: The handouts used in this course are copyrighted. By "handouts," I mean all materials generated for this class, which include but are not limited to syllabi, quizzes, exams, lab problems, in-class materials, review sheets, and additional problem sets. Because these materials are copyrighted, you do not have the right to copy the handouts, unless I expressly grant permission.

STATEMENT ON PLAGIARISM: As commonly defined, plagiarism consists of passing off as one's own ideas, words, writing, etc., which belong to another. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it in as your own, even if you should have the permission of that person. Plagiarism is one of the worst academic sins, for the plagiarist destroys the trust among colleagues without which research cannot be safely communicated. If you have any questions regarding plagiarism, please consult the latest issue of the Texas A&M University Student Rules, under the section "Scholastic Dishonesty."

Academic Integrity Statement: "An Aggie does not lie, cheat, or steal or tolerate those who do."

The Aggie Honor Council Rules and Procedures are available at the web site: http://aggiehonor.tamu.edu.

TOPICS COVERED

I. Introduction to Statistics - Handout 1 and Ch. 1 in Textbook

- a. Role of statistics in scientific investigations
- b. Research Process Scientific Method
- c. Applications of Statistics in Real World Problems
- d. Communication Key to Effective Consulting
- e. Preparation of Data/Writting Final Report

II. Types of Statistical Studies - Handout 2 and Ch. 3 in Textbook

- a. Experimental vs observational study
- b. Retrospective vs Prospective Studies
- c. Case Control Studies
- d. Types of sampling schemes
- e. Probability: Population to Samples
- f. Statistics: Samples to Population
- g. Design of Experiments Basic Principles

III. Functions Associated with Population Distributions - Handout 3 and Chapter 2 in Textbook

- a. Discrete and Continuous Distributions:
- b. Functions used to describe distributions: pmf, pdf, cdf, quantiles
- c. Location/Scale Families of Distributions
- d. Interrelationships between distributions
- e. Simulation of data
- f. Reliability Functions

IV. Sample Estimators of Pdf, Cdf, and Quantile Function - Handout 4

- a. Raw and Smoothed Estimators of Cdf
- b. Raw and Smoothed Estimators of Quantile Function
- c. Histogram and Kernel Density Estimators of Pdf

V. Parametric Summaries of Distributions - Handout 5 and Section 2.4 in Textbook

- a. measures of location: mean, median, mode, percentiles, trimmed means, m-estimator
- b. measures of dispersion: range, IQR, standard deviation, SIQR, coefficient of variation, MAD
- c. measures of Higher Order Properties: skewness, kurtosis
- d. measures of dependency: correlation, partial correlation

VI. Numerical Summaries of Distributions and Parametric Estimators: - Handout 6 and Sections 4.1-4.3 in Textbook

- a. Graphical estimators of Location/Scale parameters
- b. MOM and MLE
- c. Pdf based estimators of parameters
- d. Distribution-free estimators of distribution summaries

VII. Censored Data - Handout 7 - Pages 166, 235, 236, 660 in Textbook

- a. Type I, Type II, and Random Censoring
- b. Parametric estimation under censoring
- c. Distribution-free estimation under censoring

VIII. Graphical Summaries/Comparisons - Handout 8 and Sections 4.3-4.5, pages 271-272 in Textbook

- a. Reference distribution probability plot
- b. Box plots
- c. Quantile-Quantile plots
- d. Reference distribution plots for location-scale family of distributions
- e. normal and Weibull reference distribution plots
- f. Time Series Plots
- g. Matrix and Draftsman Plots
- h. Stacked Bar Plots
- i. Scatter Plots

IX. Goodness of Fit Tests - Handout 9 and Section 9.3.2 in Textbook

- a. Chi-squared test for discrete data
- b. Shapiro-Wilk test for normality
- c. Kolmogorov-Smirnov, Cramer-von-Mises, Anderson-Darling tests
- d. Box-Cox transformation to Normality

X. Sampling Distributions and Their Application - Handout 10 and Ch. 5 in Textbook

- a. Relationship between samples and populations
- b. Central limit theorem for sample mean, sample quantiles, median, sample standard deviations
- c. Extreme order statistics properly standardized converge in distribution to an extremely value distribution, not the normal distribution
- d. Bootstrap methods for estimating sampling distribution

XI. Interval Estimators of population parameters - Handout 11 and Sections 6.2, 7.4 in Textbook

- a. Confidence intervals for population parameters
- b. Determine sample sizes for estimating μ and π to a certain level of precision.
- c. Tolerance interval for processes and populations
- d. Prediction intervals
- e. Transformations and Bootstrapping Techniques

XII. Basics of Hypotheses Testing - Handout 12 and Sections 6.3, 7.1-7.3, 9.1 in Textbook

- a. Null and Alternative Hypotheses,
- b. Type I and Type II errors,
- c. Rejection Regions,
- d. Power-curves for z-tests, t-tests, F-tests
- e. Sample Size Determination for achieving specified power or P(Type II error),
- f. P-values
- g. Test Statistics for Hypotheses about Population Parameters: $\mu,\sigma,$ p, failure rate, λ in Poisson model
- h. Distribution-free tests of hypotheses

XIII. Test Statistics for Comparing Several Populations - Handout 13 and Ch.8, Sections 9.2-9.4, 14.2 in Textbook

- a. Population Means $\mu_1, \mu_2, \ldots, \mu_k$;
- b. Population Standard Deviations: $\sigma_1, \sigma_2, \ldots, \sigma_k$;
- c. Population Proportions: $\pi_1, \pi_2, \ldots, \pi_k$
- d. Small sample tests for Binomial
- e. Distribution-free procedures and their relative performance vs parametric procedures
- f. Evaluation of required conditions in inference procedures

XIV. Introduction to Regression Analysis - Handout 14 and Ch. 10 in Textbook

- a. strategy of regression analysis
- b. general linear model in matrix form
- c. LSE and relationship to MLE
- d. AOV for regression
- e. properties of LSE of parameters
- f. model specification
- g. regression diagnostics
- h. discussion of detection of violation of assumptions
- i. variable selection

Proposed Teaching Load for ALEC

Subcommittee for the Graduate Faculty

Kim Dooley, Gary Briers, Chanda Elbert, Lori Moore

- Policy 12.03: Faculty Academic Workload and Reporting Requirements
 Reason for the Policy: It is essential that the public and stakeholders understand the
 variety and complexity of academic workloads, while being assured that such workloads
 represent a positive value for the state.
- 2. Teaching Load
 - (a) Each *full-time* person employed for instructional purposes is expected to teach classes and assume a reasonable workload of related activities that constitute a fulltime instructional load. Persons employed on a part-time basis from instructional funds are expected to assume a workload proportional to the percentage of employment on these funds. For ALEC faculty members who have 25% research appointments, the teaching equivalent is 75% of the full load requirement. For faculty who will assume a 10 month appointment, the teaching expectation is 80% of the full time load equivalent.

	Workload 100% teaching funds	Workload 75% teaching funds	Summer teaching required
12 month contract	21	15.75	yes
10 month contract	18	13.50	no

The Department Head will provide each faculty with % teaching funds allocated to them. This will include grant responsibilities, research appointments, extension appointments, or special appointment.

Note. Teaching credits are calculated on a yearly basis. Three hours of overload in the previous or following semester should be calculated for yearly load.

Minimum teaching load standards:

- (b) For undergraduate courses-nine semester credit hours of normal classroom teaching; graduate courses-six semester credit hours of normal classroom teaching. Direct instructional activities receive an appointment code 01.
- (c) Adjustments of these amounts of normal classroom teaching may be made to account for large class sizes; duplicate sections taught, field-type courses, and overload from the previous long semester. (See Faculty Workload Policy Statement-Texas A&M University, p. 5). There are 2 main categories for adjustments:
 - <u>Graduate Supervision</u>: Symbol A1 for 2-6 students as chair, master's thesis committee 2 credits (3 credits if greater than 6); Symbol A2 for greater than 4 memberships on master's thesis committees 1 credit; Symbol A3 for Chair of PhD dissertation committee 1 credit for each dissertation student,

 b. Special Teaching Situations: A5 for large lecture classes (multiply lecture contact hours by .5 not to exceed 3 credits); A6 for teaching overlaged for new course preparation; A8* for event development of teaching methods and classroom materials; D1 new faculty instructional development**; P1-2 for professional development activities; R1 faculty engaged in research; C1-3 student advising; C4-5 for major university or college committees; B1-2 for administration.

*Faculty should qualify for course revision credit at least once every 5 years.

**The ALEC department supports the development of a research agenda and line of inquiry for tenure-track assistant professors. Therefore, these faculty should automatically receive D1 (instructional development) for 3 credits for each semester during their first 3 years at TAMU.

3. Each faculty member should calculate their teaching load to confirm that reports are accurate. Any adjustments of teaching load should be discussed in the previous year and approved by the department head during the annual performance appraisal period for the upcoming year. (See ALEC Teaching Load Worksheet as a guide to calculate your teaching workload). Undergraduate courses are calculated credit hours x 1; graduate courses are calculated credit hours x 1.5; variable credit courses are calculated per student credit hours / 3 and cannot exceed 6.0.

Example:

Spring 2011

ALEC 681-600 (1 credit hour graduate level course that was team-taught) TOTAL 1 X 1.5/2 = .75ALEC 691-608 (Jarvis-2/3 hours = .67, Nguyen-5/3 hours = 1.67) TOTAL = 2.34 ALEC 693-658 (Ortega 2/3 hours = .67) TOTAL = .67 ALEC 696-600 (F@F course - 3 credit hours x 1.5) TOTAL = 4.5 ALEC 696-601, 700, 720 (online courses – 3 credit hours x 1.5) TOTAL = 4.5 ALED 440-950 (3 credit hours undergraduate level) TOTAL - 3.0

Grand TOTAL = 15.76

2011-12	2012-13	2013-14	2014-15	2015-16
ALEC 602 Adv Instructional Design in AGSC (Harlin)	ALEC 602 Adv Instructional Design in AGSC (Harlin)	ALEC 602 Adv Instructional Design in AGSC (Harlin)	ALEC 602 Adv Instructional Design in AGSC	ALEC 602 Adv Instructional Design in AGSC
ALEC 605 Facilitating Comp Secondary AGSC Programs (Rayfield)	ALEC 605 Facilitating Comp Secondary AGSC Programs (Rayfield)	ALEC 605 Facilitating Comp Secondary AGSC Programs (Rayfield)	ALEC 605 Facilitating Comp Secondary AGSC Programs	ALEC 605 Facilitating Comp Secondary AGSC Programs
ALEC 606 Leadership Education Theory (Elbert)	ALEC 606 Leadership Education Theory (Elbert)	ALEC 606 Leadership Education Theory (Elbert)	ALEC 606 Leadership Education Theory ALEC 610 Principles of Adult Education	ALEC 606 Leadership Education Theory ALEC 610 Principles of Adult Education 1
 (Elbert) ALEC 610 Principles of Adult Education (Lindner)¹ ALEC 611 Adv Methods in Distance Ed¹ Dooley¹ ALEC 615 Philosophy of AGED (Murphy) ALEC 615 Philosophy of AGED (Murphy) ALEC 621 Methods of Online Survey Research in AGSC (Wingenbach) ALEC 623 Survey of Evaluation Strategies for Agriculture (Murphrey)¹ ALEC 624 Developing Funded Research Projects (Pina) ALEC 640 Methods of Technological Change (Murphrey)¹ ALEC 644 The Agricultural Advisor in Developing Nations (Pina) ALEC 681 Seminar (Murphy) ALEC 690 Theory of AGED Research-Basic Quant (Briers) 	 (Elbert) ALEC 610 Principles of Adult Education (Lindner)¹ ALEC 611 Adv Methods in Distance Ed (Dooley)¹ ALEC 615 Philosophy of AGED (Murphy)² ALEC 623 Survey of Evaluation Strategies for Agriculture (Murphrey)¹ ALEC 624 Developing Funded Research Projects (Pina) ALEC 640 Methods of Technological Change (Murphrey)¹ ALEC 646 Institutions Serving AG in Developing Nations ALEC 681 Seminar (Staff) ALEC 690 Theory of AGED Research-Basic Quant (Briers) ALEC 695 Frontiers in Research ALEC 695 Frontiers of Research ALEC 695 Frontiers of Research 	 ALEC 610 Principles of Adult Education (Lindner)¹ ALEC 611 Adv Methods in Distance Ed (Dooley)¹ ALEC 615 Philosophy of AGED (Murphy)¹ ALEC 621 Methods of Online Survey Research in AGSC (Wingenbach) ALEC 623 Survey of Evaluation Strategies for Agriculture (Murphrey)¹ ALEC 624 Developing Funded Research Projects (Pina) ALEC 640 Methods of Technological Change (Murphrey)¹ ALEC 644 The Agricultural Advisor in Developing Nations (STAFF) ALEC 681 Seminar (STAFF) ALEC 690 Theory of AGED Research- 	ALEC 610 Principles of Adult Education 1 ALEC 611 Adv Methods in Distance Ed ¹ ALEC 615 Philosophy of AGED ² ALEC 623 Survey of Evaluation Strategies for Agriculture ALEC 624 Developing Funded Research Projects ALEC 640 Methods of Technological Change ¹ ALEC 646 Institutions Serving AG in Developing Nations ALEC 681 Seminar ALEC 690 Theory of AGED Research- Basic Quant ALEC 695 Frontiers in Research	 ALEC 610 Principles of Adult Education ¹ ALEC 611 Adv Methods in Distance Ed ¹ ALEC 615 Philosophy of AGED ¹ ALEC 621 Methods of Online Survey Research in AGSC ALEC 623 Survey of Evaluation Strategies for Agriculture ¹ ALEC 624 Developing Funded Research Projects ALEC 640 Methods of Technological Change ¹ ALEC 644 The Agricultural Advisor in Developing Nations (STAFF) ALEC 681 Seminar ALEC 690 Theory of AGED Research- Basic Quant ALEC 695 Frontiers in Research
ALEC 695 Frontiers in Research (Rayfield)	ALEC 695 Frontiers of Research	Basic Quant (Briers) ALEC 695 Frontiers in Research		
ALEC 695 Frontiers in Research (Strong) ¹³		ALEC 695 Frontiers in Research ¹		

2011-12	2012-13	2013-14	2014-15	2015-16
ALEC 601 Adv Methods in AGED (Murphy)	ALEC 601 Adv Methods in AGED	ALEC 601 Adv Methods in AGED	ALEC 601 Adv Methods in AGED	ALEC 601 Adv Methods in AGED
ALEC 602 Adv Instructional Design in AGSC (Harlin)	(Murphy) ³ ALEC 602 Adv Instructional Design in	ALEC 602 Adv Instructional Design in AGSC (Harlin)	ALEC 602 Adv Instructional Design in AGSC (Harlin)	ALEC 602 Adv Instructional Design in AGSC (Harlin)
ALEC 604 Writing for Professional Publication (Rutherford)	AGSC (Harlin) ALEC 605 Facilitating Comp Secondary AGSC Programs (Rayfield)	ALEC 605 Facilitating Comp Secondary AGSC Programs (Rayfield)	ALEC 605 Facilitating Comp Secondary AGSC Programs (Rayfield)	ALEC 605 Facilitating Comp Secondary AGSC Programs (Rayfield)
ALEC 605 Facilitating Comp Secondary AGSC Programs (Rayfield) ALEC 606 Leadership Education Theory	ALEC 604 Writing for Professional Publication	ALEC 604 Writing for Professional Publication	ALEC 604 Writing for Professional Publication	ALEC 604 Writing for Professional Publication
(Moore) ³	ALEC 608 Leadership of Volunteers (Lockett)	ALEC 608 Leadership of Volunteers	ALEC 608 Leadership of Volunteers	ALEC 608 Leadership of Volunteers ALEC 609 Learning Organizations
ALEC 608 Leadership of Volunteers (Lockett)	ALEC 609 Learning Organizations (Moore)	ALEC 609 Learning Organizations ALEC 612 Adv Instructional Design for	ALEC 612 Adv Instructional Design for Online Learning ¹	ALEC 612 Adv Instructional Design for Online Learning ¹
ALEC 609 Learning Organizations (Moore) ALEC 612 Adv Instructional Design for Online Learning (Murphrey) ¹	ALEC 612 Adv Instructional Design for Online Learning (Murphrey) ¹ ALEC 613 Techniques in eLearning Dev &	Online Learning ¹ ALEC 613 Techniques in eLearning Dev & Delivery ¹	ALEC 613 Techniques in eLearning Dev & Delivery ¹	ALEC 613 Techniques in eLearning Dev & Delivery ¹
ALEC 613 Techniques in eLearning Dev & Delivery (Strong) ¹	Delivery (Strong) ¹ ALEC 622 Data Analysis, Collection, &	ALEC 620 Instrumentation & Survey Research Methods (Lindner)	ALEC 622 Data Analysis, Collection, & Interpretation ALEC 625 Program Evaluation &	ALEC 620 Instrumentation & Survey Research Methods (Lindner)
ALEC 620 Instrumentation & Survey Research Methods (Lindner)	Interpretation (Briers) ALEC 625 Program Evaluation & Organizational Accountability	ALEC 622 Data Analysis, Collection, & Interpretation	Organizational Accountability ¹ ALEC 630 Guidance & Counseling for Rural Youth	ALEC 622 Data Analysis, Collection, & Interpretation
ALEC 622 Data Analysis, Collection, & Interpretation (Briers)	(Elbert) ¹ ALEC 630 Guidance & Counseling for	ALEC 625 Program Evaluation & Organizational Accountability ¹	ALEC 641 The Transfer of Technology by Institutions	ALEC 625 Program Evaluation & Organizational Accountability ¹
ALEC 625 Program Evaluation & Organizational Accountability (Elbert) ¹	Rural Youth (Larke) ALEC 640 Methods of Technological Change (Murphrey) ¹	ALEC 630 Guidance & Counseling for Rural Youth ALEC 640 Methods of Technological	ALEC 645 Initiating, Managing & Monitoring Projects of	ALEC 630 Guidance & Counseling for Rural Youth ALEC 640 Methods of Technological
ALEC 630 Guidance & Counseling for Rural Youth (Larke)	ALEC 641 The Transfer of Technology by Institutions	Change ¹ ALEC 641 The Transfer of Technology	International ADEV ALEC 652 Images of Agriculture: Visual Communication Research	Change ¹ ALEC 641 The Transfer of Technology by Institutions
ALEC 640 Methods of Technological Change (Murphrey) ¹	ALEC 645 Initiating, Managing & Monitoring Projects of International	by Institutions ALEC 681 Seminar ³	ALEC 681 Seminar	ALEC 681 Seminar
ALEC 640 Methods of Technological Change (Dooley/Lindner)-Study	ADEV (Pina)	ALEC 695 Frontiers of Research	ALEC 681 Seminar ³	ALEC 695 Frontiers of Research ALEC 696 Qualitative Research
Abroad-Trinidad ⁵ ALEC 641 The Transfer of Technology by Institutions (Wingenbach)	ALEC 652 Images of Agriculture: Visual Communication Research (Rutherford)	ALEC 696 Qualitative Research Methods ¹	ALEC 695 Frontiers of Research ALEC 696 Qualitative Research	Methods ¹
ALEC 681 Seminar (Murphy)	ALEC 681 Seminar		Methods ¹	
ALEC 681 Seminar (Murphrey) ¹	ALEC 695 Frontiers of Research			
ALEC 689 Advanced Leadership Theory (Williams)	ALEC 695 Frontiers of Research ¹			
ALEC 695 Frontiers of Research (Strong)	ALEC 696 Qualitative Research Methods ¹			
ALEC 695 Frontiers of Research (Strong) ¹				
ALEC 696 Qualitative Research Methods (Dooley) ¹				

SPRING REGULAR SEMESTER

	2011-12	2012-13	2013-14	2014-15	2015-16
Spring Winter Mini-mester	ALEC 640/ALED 440 Methods of Technological Change (Dooley/ Lindner) –Study Abroad-Costa Rica ⁵				
	ALEC 603 Experiential Learning (Rayfield) ⁴	ALEC 603 Experiential Learning ⁴	ALEC 603 Experiential Learning	ALEC 603 Experiential Learning	ALEC 603 Experiential Learning
	ALEC 607 Youth Leadership Programs (Boyd) ¹	ALEC 607 Youth Leadership Programs ¹	ALEC 607 Youth Leadership Programs ¹	ALEC 607 Youth Leadership Programs ¹	ALEC 607 Youth Leadership Programs ¹
lester	ALEC 616 Facilitation of Leadership Programs (Moore) ⁴	ALEC 616 Facilitation of Leadership Programs ⁴	ALEC 616 Facilitation of Leadership Programs ⁴	ALEC 616 Facilitation of Leadership Programs ⁴	ALEC 616 Facilitation of Leadership Programs ⁴
S I / Mini-m	ALEC 625 Program Evaluation & Organizational Accountability	ALEC 617 Leadership in Organizational Culture & Ethics	ALEC 617 Leadership in Organizational Culture & Ethics	ALEC 617 Leadership in Organizational Culture & Ethics	ALEC 617 Leadership in Organizational Culture & Ethics
S S	(Elbert) ¹ ALEC 681 Seminar (Murphrey) ³	ALEC 631 Development and Planning of Community Education Programs	ALEC 625 Program Evaluation & Organizational Accountability ¹	ALEC 631 Development and Planning of Community Education Programs	ALEC 625 Program Evaluation & Organizational Accountability ¹
Summo	ALEC 617 Leadership in Organizational Culture & Ethics (Williams)	ALEC 646 Institutions Serving AG in Developing Nations	ALEC 631 Development and Planning of Community Education Programs	ALEC 646 Institutions Serving AG in Developing Nations	ALEC 631 Development and Planning of Community Education Programs
S	ALEC 631 Development and Planning of Community Education Programs (Cummings)				
SS =					

- 1 Distance delivery as web-based
- 2 Delivery is web enhanced
- 3 For Joint Ed.D. program
- 4 Summer Mini-mester
- 5 Winter Mini-mester (Study Abroad)

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