AEC 3100

Computer Applications in Agricultural Economics

1) Credits and Hours :
Credit Hours: 3
Lecture Hours: 3
Labs and Studios: 0

2) Texts or Major Resources:

Text:
3100 Lab Manual, updated annually by instructor(s), and available from class instructor as a pdf file at no cost to students.

3) Course Description:
Pr, Comp 1000 or equivalent; Cor, STAT 2510 or STAT 2610 or equivalent. Analytical methods for agricultural economics: spreadsheet applications, optimization, regression, budgeting, and risk management.

4) Course Objectives:
a) Students will gain an understanding of the use of computer based analytical methods most commonly used by agricultural economists.
b) Students will understand how to input and/or import data in formats that can be used in agricultural analysis programs.
c) Students will understand the use of computer spreadsheet formulas, optimization programs, regression and risk management add-in programs used in agriculture.
d) Students will learn how to organize results of the analyses and to present these results in a PowerPoint® format.
e) After completion of the course students will have an understanding of how to identify and apply the proper method to solve a problem using the computer in agricultural economics.

5) Course Content and Class Schedule**:

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D. Farm Financial Analysis  
E. Farm Financial/Futures Analysis  
F. Importing Data/Exporting Results  
In Class Assignments (10% grade)  

III. Exam 1: (10% of grade)  

IV. PowerPoint® Applications in Agricultural Economics  
   A. Constructing a PowerPoint Presentation.  
   B. Formatting and Using Exported Data.  
In Class Assignments (10% grade)  

V. Operations Research Applications in Agricultural Economics  
   A. Concepts of Linear Programming  
   B. Linear Programming Applications in Ag. Econ.  
In Class Assignments (10% grade)  

VI. Exam 2: (10% of grade)  

VII. Introduction to Regression Analysis in Ag. Economics  
      A. Concepts of Regression Analysis  
      B. Regression Analysis Applications in Ag. Econ.  
In Class Assignments (10% grade)  

VIII. Exam 3: (10% of grade)  

IX. Introduction to Risk Management Applications in Ag. Economics  
     A. Concepts of Risk and Risk Management  
     B. Risk Management Applications in Ag. Econ.  
In Class Assignments (10% grade)  

X. Exam 4: (10% of grade)  

X. Final Exam: (10% of grade)  

** Note: Use of computer lab Room 303 Comer Hall will be required.

6) Course Requirements/Evaluation: Grading Policy

AEC 3100 grading policy
4 Written Exams (total) 40%  
5 Problem Assignments 50%  
Final Exam 10%  

Grading Scale
90.0-100 A  
80.0-90.0 B  
70.0-80.0 C  
60.0-70.0 D  
below 60 F  

There is no flexibility with respect to rounding up grades. An 89.9 is a B, a 79.9 is a C, and a 69.9 is a D. Final letter grades are calculated using Excel®, set to one decimal point accuracy.
Please do not ask to "drop" any of your test or assignment grades or to be provided with any special "extra credit" assignments to boost your grade. Such favors would provide special and differential treatment, and thus are strictly against our policies. We want every student in this class to learn the material and earn a good grade, but only by following the rules set out in this syllabus or in the "Tiger Cub." Providing special favors is a disincentive to the learning process and is unfair to those who do not receive the same treatment.

**Exams:** Four one hour written exams will be held during class hours and will count 40% of the final grade. The exams will consist of answering questions to demonstrate the students knowledge of how to input data, organize the data for analysis, determine the proper applications (formulas, etc), output and display the results of applications to typical problems in agricultural economics.

**Assignments:** Students will be expected to demonstrate knowledge and will be graded on their expertise in solving an agricultural economics problem assigned in class by use of the analytical technique and computer application being taught. These will count 50% of the course grade. It will be necessary for the student to use the computer to solve these problems and to properly display and interpret the output of a problem analysis.

**Grading Disputes:** If you think there is a mistake in the grading of a test or in the calculation of grade points, please inform the instructor as soon as possible, and certainly before the next week has passed. Disputes about exam questions are handled the following way: The student will **write** a note, explaining the problem he or she perceives with the grading. The grade in dispute will be assessed and if an exam question is being assessed, the question will be re-evaluated. If there is, in fact, a mistake, the grade will be corrected. If the original grading is correct, a written explanation will be provided. If the student is still not satisfied, he or she should see the instructor in the office for further explanation. If the student is still not satisfied, he or she should consult the Tiger Cub and follow the procedures therein. Please remember that when it comes to matters of judgment regarding the quality of essays questions and term papers, the final decision is the instructors.

A missed exam will be assigned a grade of zero, unless a student has a university-approved excuse, as listed in the Tiger Cub.

**Final Exam:** The final exam will be comprehensive and similar in format to hour exams (but longer) and will count 10% of the final grade. The final exam is held during the time scheduled by the University. To take the final exam at a different time, the students must have a valid excuse and, following university policies, must obtain written permission from the dean of their college for a rescheduling.

**Course Policy Statements:**

**Excused Absences:** If you know you will have a conflict with an exam or assignment date, please provide that information well beforehand to arrange a make-up test or extension of the
assignments. (Make-ups and extensions will be granted in accordance with Tiger Cub policies.) At a minimum, please provide one-week notice for an excused absence for any scheduled event, such as a field trip or court appearance. All excuses require documentation.

**Sudden Illness:** Students missing exams because of sudden illness will need appropriate documentation, verifying this illness. A make-up will be scheduled at a mutually convenient time within one week of the missed exam, unless circumstances (e.g., extended illness) require a longer period for rescheduling. Students who cannot reschedule within a week will need an excuse covering the period of delay.

**Family Emergencies:** The death or serious illness of a member of the student's immediate family is also grounds for an excused absence. In such cases, the student should provide me with a letter (on office stationery) from your dean's office as verification of the emergency. If you need leave or extensions for a family emergency, please do not hesitate to see your dean about the situation.

**Make-Up Exams:** A make-up exam will be provided for a student with a validated, university-approved excuse for missing the original exam. It is the student's responsibility to get in touch with the instructor as soon as possible after the missed exam (or beforehand if the excused absence is for a scheduled event). (See the information on "sudden illness" above.)

**Extra Credit:** A few extra credit homework assignments may be given. These assignments will be at the discretion of the instructor and may provide an opportunity for the student to earn 1 or 2 extra points to be added into the student's grade for the exam on the appropriate unit.

**General Attendance Policy:** Attendance is not figured directly into your grade calculation, but please be advised that students who do not attend class regularly generally perform poorly on exams and assignments. A student with unexcused absences is entirely responsible for missed material. See the Tiger Cub for more details on class attendance policy and excused absences.

**Academic Honesty:** The guidelines in the Tiger Cub will be followed in dealing with academic honesty cases, which means turning in all suspected cases of academic dishonesty to the Academic Honesty Committee, no exceptions.

**Class Website:** Notes and other materials for this class will be made available by the instructors.

**Office Hours:** Office hours for assistance will be made available by the instructor. If they are changed temporarily, an announcement will be made via email or in class. If these hours are inconvenient for you, please make an appointment. Email is probably the best way to arrange an appointment. If you drop by without an appointment, you may find the instructor occupied or out of the office.
**Taping:** Taping the lecture requires permission from the instructor. Such permission is only granted in special cases (accommodation memo, English as second language), with limiting conditions on use of the tapes.

**Accommodations for Students with Disabilities:** Students who need accommodations are asked to arrange a confidential meeting during the first week of class, or as soon as possible thereafter. This meeting may be set up by phone with Dr. Novak at 844-3512, e-mail (novakjl@auburn.edu), or in person (office # Comer 304) by appointment. Students should bring a copy of the Accommodation Memo and Instructor Verification form. Students who require accommodations but do not have these documents are encouraged to contact the office of the Program for Auburn Students with Disabilities, 1244 Haley Center (334-844-2096). We will work to accommodate special needs in a manner consistent with the recommendations of this office.

**Cell Phones:** Turn them off during class. If you have a valid reason to have a cell phone turned on (such as a medical emergency or a job requirement) please inform the instructor as soon as possible and also please set your phone to vibrate or flash instead of ring. **You may not have a cell phone, even turned off, visible on your desk during exams.**

**Music players and similar equipment:** You may not use a music player of any kind, even with an earpiece, during class or exams. Students will be required to show both ears during exams so that we can ascertain that no audio devices are being used.

**Teaching philosophy:** We regard education as human capital formation, which has more in common with the production process than with consumption. Inputs into this human capital formation come from the student, the university, and the faculty member. The most important inputs come from the student. To gain value from a class, a student must attend each class, keep up with assigned readings, and work to understand the material. The amount of effort required to master a subject is highly variable, and each student is the best judge of how much effort he or she must expend to master the material. Agricultural Economics can be a challenging subject; hence, students would do well to anticipate putting time into this course. Every student in this class has the ability to do well in it, with appropriate effort.