Texas Tech University
AGSC 2301: Agribusiness Data Analysis and Modeling with Spreadsheets
Fall 2020

Course Meeting Times: Lecture: MW 12:00p-12:50p; Lab: M 2:00p-3:50p or M 4:00p-5:50p
Class Rooms: Lecture: Human Sciences, HS 226; Lab: AGRI 126, (CASNR Computer Lab)
Course Web Site: TTU Blackboard
Course Email Address: agsc2301@ttu.edu

Instructor: Marty Middleton
Office: AG 125a
Phone: (806) 834-7495
Office Hours: By appointment or during the following times.

Monday 10:00a to 11:30a
Wednesday 10:00a to 11:30a; 1:30p to 2:30p

Required Materials:

(2) USB flash (memory) device
(3) Spiral notebook for course note-taking in AGSC 2301

Description and Learning Outcomes: Students will use their practical understanding of computers and information systems in gaining the skills required to create advanced spreadsheet and database applications that increase productivity of data analysis and help solve data analysis problems in the agriculture industry. Specifically, by the end of this course, students should have achieved the following learning outcomes:

- A clear understanding of the importance of reuse of analytic logic in data analysis applications and proficiency in the techniques of implementing reuse in spreadsheet data analysis
- A clear understanding of the importance of duplication of analytic logic in data analysis applications and proficiency in the techniques of implementing duplication in spreadsheet data analysis
- Proficiency in the use of advanced formulas in spreadsheet data analysis
- Competency in the use of advanced conditional logic in spreadsheet data analysis
- Skill in the use of array formulas and functions in spreadsheet data analysis
- Competency in the use of lookup techniques in spreadsheet data analysis
- Basic understanding of optimization problem solving using the Excel Solver
- Basic understanding of the benefit and application of macro code in Excel spreadsheet analysis
- A basic understanding of the concept of simulation modeling as used in microeconomics
- Basic understanding in the techniques of simulation modeling using MS Excel and experience implementing basic simulation models

Assessment of Learning Outcomes: Learning outcomes in this course will be assessed through exams, lab application activities, graded and non-graded quizzes and lab problem sets, class discussion, and polling the class. These assessments will specifically assess students' learning with respect to the above stated areas. A rubric rating approach using UNACCEPTABLE, ADEQUATE, and SUPERIOR classifications will be used to assess knowledge learning outcomes. The overall goal in this course is for the average of the class sample to achieve ADEQUATE rubric rating in each of the knowledge learning outcomes.
**Organization:** Each student is scheduled to attend course lectures every Monday and Wednesday and the course lab once each week at the assigned times.

Each student is scheduled to attend course lectures each Monday and Wednesday. The course lectures will focus on conceptualizing information systems and identifying practical problems for which general computer applications are appropriate solution tools. Prior to a lecture day, students may be assigned readings and/or workouts as preparation materials which include material from the textbook, other printed material, and online material. The preparation material should be completed before coming to class on the lecture day for which the material is assigned. During several class meetings, a quiz covering the preparation material and/or recent course material will be administered. *Students should take good notes during the lecture and review the notes often.*

Each student is scheduled to attend his/her assigned section of the course lab once each week. In the weekly course lab meetings, implementation details of the solutions to identified practical problems will be presented and the student will have the opportunity to gain experience in finding such solutions. Course labs are focused on providing time and assistance for students to work independently on relevant practical problems. On several occasions throughout the semester, students will be asked to submit completed work on Lab Problem Sets. Lab grades will be determined based on grading of student work randomly chosen from each Lab Problem Set.

**Preparation:** Students will come to class having completed all assigned preparation material and will be prepared for a quiz. All lab work should be completed on time so that the student will be prepared for new material that may build on previous work. Questions and discussion are encouraged from students.

**Exams:** Two Midterm Exams and a Final Exam will be given. The Final Exam will be comprehensive, covering all the material assigned and covered since the beginning of the semester. The Final Exam will be held on Friday, May 8, 2020 from 1:30 p.m. – 4:00 p.m.

**Quizzes:** Quizzes will be given during several class meetings throughout the semester. Questions on the quizzes will come from the *preparation material for the day* and *recent course topics and discussion*. A student must be present in the classroom at the time the quizzes are collected to receive credit. The average of a student's quiz grades will be calculated and used as the "Quizzes" component in the Calculated Course Grade (see below). The student's single lowest quiz grade will be dropped from the scores used in calculation of the quiz average.

**Lab Problems:** Lab problems and questions will be assigned for students to work on and complete during each lab meeting. On several occasions throughout the semester, students will be asked to submit completed work on Lab Problem Sets. Lab grades will be determined based on grading of student work randomly chosen from each Lab Problem Set. Work on Lab Problem Sets will not be accepted late for any reason. The average of a student's Lab Problem Set grades will be calculated and used as the "Lab Problems" component in the Calculated Course Grade (see below). The student's single lowest Lab Problem Set grade will be dropped from the scores used in calculation of the Lab Problem Set average.

**Calculated Course Grade:** The weighting of the Calculated Course Grade is as follows.

<table>
<thead>
<tr>
<th>Component</th>
<th>Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midterm Exam 1:</td>
<td>20.0%</td>
</tr>
<tr>
<td>Midterm Exam 2:</td>
<td>20.0%</td>
</tr>
<tr>
<td>Final Exam:</td>
<td>25.0%</td>
</tr>
<tr>
<td>Quizzes:</td>
<td>25.0%</td>
</tr>
<tr>
<td>Lab Problems:</td>
<td>10.0%</td>
</tr>
</tbody>
</table>
**Attendance:** Attendance is expected at all lecture and lab meetings. To avoid disturbing other students, please do not arrive late.

Attendance will be recorded at each lecture and lab meeting. To be counted present, a student must be in the room at the time the instructor checks attendance AND must not leave the classroom before the class has been dismissed by the instructor.

Depending on the number of lecture and lab meetings attended, the student's calculated course grade will receive a bonus or penalty according to the following table. In the example, the calculated course grade is 88.

<table>
<thead>
<tr>
<th># of absences is...</th>
<th>bonus/penalty is...</th>
<th>example final grade is...</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>+ 5.0</td>
<td>A (93)</td>
</tr>
<tr>
<td>1 to 3</td>
<td>+ 3.0</td>
<td>A (91)</td>
</tr>
<tr>
<td>4 to 7</td>
<td>0.0</td>
<td>B (88)</td>
</tr>
<tr>
<td>8</td>
<td>- 2.0</td>
<td>B (86)</td>
</tr>
<tr>
<td>9</td>
<td>-4.0 (2 x -2.0)</td>
<td>B (82)</td>
</tr>
<tr>
<td>10</td>
<td>-6.0 (3 x -2.0)</td>
<td>B (80)</td>
</tr>
<tr>
<td>&gt; 10</td>
<td>-2.0 per each</td>
<td>etc...</td>
</tr>
</tbody>
</table>

Note that for each absence beyond seven, the student's letter grade is reduced by one-fifth of a letter grade. When a student is absent from a meeting, it is the responsibility of the student to contact another student to discover what was missed, to obtain a copy of the class notes/material, and to study the missed material.

**Additional Notes:** All assignments must be completed in the format requested by the instructor. All assignments will be completed using one or a combination of the following applications, Microsoft Excel 2016, Microsoft Word 2016, Microsoft Internet Explorer or equivalent browser, and other applications to be named as needed.

Students enrolled in AGSC 2301 should have a comfortable and workable familiarity with Microsoft Excel application software and email systems.

**Civility in the Classroom:** Texas Tech University is a community of faculty, students, and staff that enjoys an expectation of cooperation, professionalism, and civility during the conduct of all forms of university business, including the conduct of student–student and student–faculty interactions in and out of the classroom. Further, the classroom is a setting in which an exchange of ideas and creative thinking should be encouraged and where intellectual growth and development are fostered. Students who disrupt this classroom mission by rude, sarcastic, threatening, abusive or obscene language and/or behavior will be subject to appropriate sanctions according to university policy. Likewise, faculty members are expected to maintain the highest standards of professionalism in all interactions with all constituents of the university.

**Classroom Accommodations for Students with Disabilities:** Any student who, because of a disability, may require special arrangements in order to meet the course requirements should contact the instructor as soon as possible to make any necessary arrangements. Students should present appropriate verification from Student Disability Services during the instructor’s office hours. Please note: instructors are not allowed to provide classroom accommodations to a student until appropriate verification from Student Disability Services has been provided. For additional information, please contact Student Disability Services in West Hall or call 806-742-2405.
**Academic Integrity:** Academic integrity is taking responsibility for one’s own class and/or course work, being individually accountable, and demonstrating intellectual honesty and ethical behavior. Academic integrity is a personal choice to abide by the standards of intellectual honesty and responsibility. Because education is a shared effort to achieve learning through the exchange of ideas, students, faculty, and staff have the collective responsibility to build mutual trust and respect. Ethical behavior and independent thought are essential for the highest level of academic achievement, which then must be measured. Academic achievement includes scholarship, teaching, and learning, all of which are shared endeavors. Grades are a device used to quantify the successful accumulation of knowledge through learning. Adhering to the standards of academic integrity ensures grades are earned honestly. Academic integrity is the foundation upon which students, faculty, and staff build their educational and professional careers. [Texas Tech University (“University”) Quality Enhancement Plan, Academic Integrity Task Force, 2010]

Standards of academic honesty and integrity will be upheld. Students are expected to assist in maintaining a classroom environment which is conducive to learning and abide by the policies set forth in the 2019-2020 Student Handbook. Please take note that looking around the room at other students' papers and/or computer screens during quizzes and exams will be considered cheating (academic dishonesty). There will be no tolerance for cheating. If a student is caught attempting to cheat on a quiz or exam, the student will be given a score of 0 on the quiz/exam and face potential action as per the procedure outlined in the Code of Student Conduct (in Student Handbook).

**Religious Holiday:** "Religious holy day" means a holy day observed by a religion whose places of worship are exempt from property taxation under Texas Tax Code §11.20. A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. A student who is absent from classes for the observance of a religious holy day shall be allowed to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence. A student who is excused under section 2 may not be penalized for the absence; however, the instructor may respond appropriately if the student fails to complete the assignment satisfactorily.

**Department of Agricultural & Applied Economics - Classroom Rules and Behavior**

Students are expected to show respect to classmates, instructors, and especially guest speakers. Consistent with the stated assumptions and beliefs of Texas Tech University, the department has composed and the AAEC Student Association has endorsed the following set of rules for appropriate student classroom behavior.

- Do not talk during class meetings. Talking is disruptive to the instructor and to your fellow classmates.
- Do not arrive late to class and do not leave the classroom during class meetings. Exceptions may occur for medical emergency or situations where prior instructor approval has been granted.
- Do not use (including viewing of) communication devices (phones, watches, etc) during class meetings. All electronic devices should be silenced during class meetings.
- Do not read/view other unassigned materials (newspapers, magazines, etc,) during class meetings.
- Do not exhibit disruptive posture during class meetings. e.g. sleeping, slouching, laying, resting feet/head on furniture, etc.
- Do not use notebook computers (or other computing devices) during class meetings unless prior instructor approval has been granted.
- Do not bring/use food and/or tobacco products during classroom meetings unless prior instructor approval has been granted.

As stated above, these guidelines should be followed in every class meeting, and represent the minimum level of respect expected from students. Additionally, if a student violates these rules, he/she may be required to leave the classroom and lose credit for attendance and any other quiz assignment that may be given during the lecture/lab meeting.