

**AGEC 3413**  
**AGRICULTURAL BUSINESS MANAGEMENT DECISIONS**  
**Department of Agricultural Economics & Agribusiness**  
**Louisiana State University and A&M College**  
**Fall 2018 Syllabus**

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**INSTRUCTOR:** Dr. Trina Biswas  
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*Please put "AGEC 3413" in the subject line of your email to the Instructor.*

**LECTURES:**

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MWF - 2:30 - 3:20 PM  
Room: 220 COATES

**OFFICE HOURS:**

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Open door policy and/or by appointment

**REQUIRED TEXT:**

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Introduction to Management Science, 12th Edition, Bernard W. Taylor, III, Pearson, 2017.

Additional readings and materials will be assigned throughout the semester. Copies of the supplemental course material will be made available online via MyLSU web portal.

**COURSE DESCRIPTION:**

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AGEC 3413 Agricultural Business Management Decisions (3) F, Prereq.: AGECE 2003 or equivalent, Identification of typical decisions of agricultural business firms; development of concepts, procedures, and analyses that facilitate planning, organizing, directing, coordinating, and controlling functions within agricultural business firms.

**COURSE OBJECTIVES:**

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The objective of this course is to teach the basic quantitative procedures commonly used to address problems faced by decision makers in the management of agribusiness firms. This course will provide the student with training in the use of a wide variety of commonly used operations research quantitative analysis procedures.

Specific objectives include:

- (1.) Gain experience in the use of Excel in solving decision analysis problems.
- (2.) Present quantitative procedures used in decision making under risk and uncertainty.
- (3.) Introduce the modeling approach and the use of linear programming to find optimal solutions to economic problems.
- (4.) Present additional operations research procedures typically used in the areas of decision analysis, forecasting, simulation and inventory control.

**WEEKLY CLASS SCHEDULE:**

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Monday and Wednesday of each week will be devoted to discussion of assigned course and homework material, with Friday's class devoted to addressing specific questions on assigned decision problems. Course topic material will be presented on Mondays. Discussion of weekly decision analysis homework problems using Excel spreadsheets will be discussed on Wednesdays. Class attendance is expected on Mondays and Wednesdays. No formal class period will be held on Fridays, *except to address students' questions on assigned homework and for exams given during the semester.*

**GRADING POLICY:**

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The grade obtained in the course will be determined by your performance on class participation, quizzes, three exams and a comprehensive final exam. Homework problem sets will be assigned every week but won't be graded separately. Homework grade will serve as class participation grade and will be counted towards the final course grade.

The relative weights are as follows:

	<u>% of Grade</u>
Class Attendance/Participation (Includes Homework)	10
Quizzes (Drop the lowest)	15
Three In-class exams and a final	<u>75</u>
	100

The final grading scale is as follows:

97 or above	A+
94-96.4	A
90-93.4	A-
87-89.4	B+
84-86.4	B
80-83.4	B-
77-79.4	C+
74-76.4	C
70-73.4	C-
67-69.4	D+

64-66.4	D
60-63.4	D-
Below 60	F

**GRADING:**

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Three exams will be given during the semester. No makeup exams will be given for exams missed. A comprehensive final exam will be given at the end of the semester. Students missing an exam during the semester must take the final exam. Final course grade will be based on the average grades on exams taken. At the end of semester, students who have taken all three semester exams can choose to not take the final exam and receive their current grade average as their final course grade. Students choosing to not take the final exam must sign a list in my office indicating their intention to not take the final exam and accept their current grade as their official course grade. Grades for students not taking the final will be based on the three semester exams. Grades for students taking the final exam will be based on the two highest in-class exams plus the final exam. Students who do not take the final exam and have not signed the list indicating their final exam intentions will receive a grade of zero for the final exam which will be included in their final course grade.

**EXAMS DATES:**

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Exam dates for the three in-class examinations and a final are given below. In-class examination dates mentioned below are tentative and subject to change. In case we change the dates, the new dates will be announced (in class/emailed) at least two weeks prior to the day the exam will be given and will take precedence over any dates from prior information.

The date of the final examination is already set by the university and will be held on the date mentioned below.

**Exam 1:** Friday, September 14, 2:30 - 3:20 PM (Tentative)

**Exam 2:** Friday, October 12, 2:30 – 3:20 PM (Tentative)

**Exam 3:** Monday, November 19, 2:30 - 3:20 PM (Tentative- *we might change this one specifically*)

**Final Exam:** Tuesday, December 4, 5:30 PM - 7:30 PM

Final Exam schedule can be accessed at:

<https://www.lsu.edu/registrar/academics/files/schedule-booklets/2018/2018-Fall-Schedule-Booklet.03.pdf>

Academic calendar for 2018-2019 can be accessed at:

<https://www.lsu.edu/registrar/academics/files/academic-calendar/Academic-Calendar-2018-19-9-29.pdf>

## **HOMEWORK:**

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Each week a decision analysis homework problem related to the weekly discussion topic will be assigned. Work will involve developing an Excel-based spreadsheet model to address and answer specific decision analysis problems. Class discussion on Wednesdays will provide information on how to develop the spreadsheet model. PDF copies of the model solution will be posted on Moodle for students to check work. Additional questions can be addressed in class on Fridays. Homework will not be graded separately but will be counted for class-participation grade.

## **EXAMS:**

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Three semester exams and a final comprehensive exam will be given during the semester. Three semester exams will consist of general questions about topic subject matter as well as specific mathematical decision analysis problems and Excel model formulation. Some questions will include problems requiring the use of a calculator. No make-up exams for missed exams will be given.

## **QUIZZES:**

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Several pop quizzes may be given during the semester. Students must be present in class prior to quiz distribution to qualify to take the quiz. Students entering the classroom after the quiz has started will not be allowed to take the quiz. The lowest quiz grade will also be dropped.

## **TENTATIVE COURSE CONTENT:**

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The goal of this class is to make you able to develop/understand mathematical models to solve agribusiness decision-making problems. Problems faced by managers are of multi-fold. Those can range from maximizing profit to minimizing cost. This class will help you to develop mathematical optimization problems and solve those using both conceptual idea and modern computer software. Even if sometimes we may not cover exact real world problems, concept learned in the class should help you throughout your life. Topics covered in this course include:

1. Introduction
2. Linear programming: model formulation and graphical solution
3. Linear programming: computer solution and sensitivity analysis
4. Linear programming: modeling examples
5. Integer programming
6. Transportation problem
7. Nonlinear programming
8. Probability and decision making

## **MOODLE:**

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Various information for the course (including the syllabus, quiz scores, and exam scores) will be posted on Moodle. All reading assignments, homework assignments, and material presented in class, as well as quiz and exam grades, will be posted on Moodle. It is the responsibility of the student to access course material on Moodle on a regular basis to keep up to date with assignments and other course information. All students in this course will be required to use their MyLSU account. Your MyLSU e-mail address will be the primary method of communication. Please note that the LSU IT Help Desk can be accessed at: <http://itsweb.lsu.edu/USS/help%20desk/item2424.html>.

## **Notes Regarding Exams/Quizzes and student responsibilities:**

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- (1) Class attendance is required to accomplish course objectives and achieve satisfactory performance on exams. Students are expected to be on time for class and to stay until class has ended. Students are expected to read assigned course material and are expected to be responsible for that material on exams. Please do not carry on personal conversations during class.
- (2) Students are responsible for becoming familiar with the Code of Student Conduct regarding academic misconduct. Students suspected of acts of cheating and/or plagiarism will be reported to the Dean of Students.
- (3) It is expected that students have read the assigned chapters or pages prior to class for the background necessary to properly participate in the discussion and think critically about the concepts addressed. As a general policy, for each hour you are in class, you should plan to spend at least two hours preparing for the next class. Since this course is for three credit hours, you should expect to spend around six hours outside of class each week reading or writing assignments for the class.
- (4) Only absences deemed by the Instructor in accordance with LSU PS-22 will be excused. The student is required to e-mail the Instructor prior to missing class. Written documentation should be provided prior to the next class meeting. Documentation provided to the Instructor for an absence past 48 hours of the missed class and/or assignment will not be accepted. Absences for routine illnesses and work will not be excused. If you have a situation which will result in you missing an excessive amount of class, contact the Instructor immediately. Documentation will be required.
- (5) Please do not leave during class unless you have cleared this with the instructor ahead of time. Please arrive on time and prepared.

- (6) All electronic devices including pagers, instant messaging, sms messaging, and other e-mail/text related devices must be turned off and stowed during exams. The instructor reserves the right to require you to close laptops when it appears its use is disruptive.
- (7) Students are expected to meet all announced deadlines for assignments. Dates for semester exams in the syllabus are tentative and subject to change.
- (8) Students entering the lecture hall after the first student has turned in his/her quiz or exam will not be allowed to take the quiz or exam.
- (9) Calculators will be required for use on exams. Each student must bring their own calculator to the exam. No cell phone calculators may be used. No sharing of calculators during exams will be accepted.
- (10) In-class assignments cannot be made up and will be excused only in cases where a university-approved excused absence can be documented. You must provide documentation for the excused absence one week before or after the date of the exam you missed.

### **IMPORTANT POLICIES AND PROCEDURES** (please read these carefully)

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- (1) **Academic Integrity and Academic Misconduct:** Students are required to know and abide by Louisiana State University's Policy on Academic Integrity and Academic Misconduct, which prohibits dishonesty in academic work. For more information, please visit the webpage "LSU Code of Student Conduct", <http://students.lsu.edu/saa/students/code>.
- (2) **Disability Statement:** The University is committed to making reasonable efforts to assist individuals with disabilities in their efforts to avail themselves of its services and programs. To this end, Louisiana State University will provide reasonable accommodations for persons with documented qualifying disabilities. If you have a disability and feel you need accommodations in this course, you must present a letter to me from Disability Services (located in 115 Johnston Hall) indicating the existence of a disability and the suggested accommodations <http://students.lsu.edu/disability>.
- (3) **Diversity Statement:** Diversity is fundamental to LSU's mission and the University is committed to creating and maintaining a living and learning environment that embraces individual differences. Cultural inclusion is of highest priority. LSU recognizes that achieving national prominence depends on the human spirit, participation, and dedicated work of the entire University community. Flagship: 2020 will be realized by bringing together diverse ideas, perspectives, skills, and talents of the nation's pre-eminent scholars, brightest students, and leading higher education professionals. Through its Commitment to Community, LSU strives to create an inclusive, respectful,

intellectually challenging climate that embraces individual differences in race, ethnicity, national origin, gender, sexual orientation, gender identity/expression, age, spirituality, socio-economic status, disability, family status, experiences, opinions, and ideas. LSU proactively cultivates and sustains a campus environment that values open dialogue, cooperation, shared responsibility, mutual respect, and cultural competence– the driving forces that enrich and enhance cutting edge research, first-rate teaching, and engaging community outreach activities.

<http://www.lsu.edu/diversity/about-us/diversity-statement.php>.

- (4) **LSU Cares:** LSU Cares is a university initiative dedicated to the well-being of the students and promotes a community that cares about each other. LSU Cares works with the students to empower them to use campus and community resources. The purpose of LSU Cares is to provide an online reporting portal for students, faculty, staff, and parents/families to report concerns in an appropriate way. If you need assistance from LSU Cares please check the following link: <http://www.lsu.edu/students/saa/lsu-cares/index.php>

*Disclaimer: The instructor reserves the right to update/change the syllabus provided I notify you for the changes well in advance. Adequate accommodations will be provided should a conflict arise.*