

**AEC 340 – AGRICULTURAL FINANCE**  
**Texas A&M University-Commerce**  
**Department of Agricultural Sciences**  
**Summer 2, 2014**

**Instructor:** Dr. Jose Lopez  
Office: Agricultural Science Building, Room 143  
Phone: (903) 886-5623  
Email: Jose.Lopez@tamuc.edu

**Class Section:** 01W (Online)

**Class Time:** M-F (Online)

**Office Hours:** You can contact me via email at [Jose.Lopez@tamuc.edu](mailto:Jose.Lopez@tamuc.edu). Alternatively, you can email me from eCollege (<http://www.online.tamuc.org/>). I will be available for in-person consultation in my office by appointment only.

**Required Text:** *Fundamentals of Agribusiness Finance* by Ralph W. Battles and Robert C. Thompson. Iowa State University Press, Iowa, 2000. (ISBN 0813820693)

**Optional Financial Calculator:** Students can choose to buy a financial calculator and use it in class exercises, quizzes, and exams. The instructor will explain how to use the *Texas Instruments BAI Plus* financial calculator, but it is ultimately the student responsibility to become familiar with and learn how to use it to solve various agricultural finance problems.

If the student owns a different financial calculator, then (s)he is welcome to ask questions on how to use your calculator during office hours.

There are several calculators that can be used:

- Texas Instruments BAI Plus
- Hewlett Packard 10B

The calculator you get should be able to compute net present value, internal rate of return, present values, future values, payments on an annuity, interest rates, cash flow analyses, and statistical calculations.

The calculators listed above have excellent guidebooks or manuals that explain how to use the calculator. Students should study the manuals and do some of the practice problems to become familiar with the procedure. The instructor will spend some time in class covering the use of a calculator for financial analyses.

**Prerequisites:** MATH 1314 (MATH 141) or MATH 175 or Higher Math.

**Teaching Philosophy:**

1. A course must deliver information, concepts and methods that will be useful in the student's professional life. However, learning analytical reasoning skills and improving the ability to process and use information efficiently is more important than memorizing facts and formulas and performing procedures repeatedly.

2. Students learn best when theories, concepts and procedures are explained in plain language as well as formally, and are complemented with examples or applications that are relevant to the students.

**Character Formation:** It is important during your college education to learn the values and rewards of hard work, responsibility, honesty and striving for excellence at all times. The professor will promote character formation while teaching the course.

**Course Description:** Analysis of capital investments, interpretation of financial statements, capital structure considerations for agricultural firms, farm real estate pricing, and financial intermediation in agriculture.

**General Objective:** The general objective of this course is to be able to make effective financial decisions. These decisions may be about personal financial conditions or about financing and managing agricultural enterprises and agribusinesses.

**Student Learning Outcomes:** The students will learn to use financial tools and concepts that are used in financial decisions.

Upon completion of this course, the students will be able to:

- Understand and apply concepts related to time value of money.
- Use a financial calculator, a scientific calculator, or Microsoft Excel to solve time value of money problems.
- Identify and define capital budgeting methods.
- Apply capital budgeting methods to solve investment decisions problems.
- Analyze financial statements used in agribusiness.
- Describe financial and business risk.

### **Topics:**

- Chapter 1: Introduction to Agribusiness Finance
  - Introduction to agribusiness finance, agribusiness producers, flow of funds in the economy, importance of finance to agribusiness, domestic trends in agribusiness finance, and international trends
- Chapter 2: Agribusiness Loans: Legal Issues, Terms, and Interest Rates
  - Agribusiness loans: legal issues, terms, and interest rates; promissory note; parties to loan transactions; security agreement; mortgages versus deeds of trust; other loan terminology; life cycle of a loan; default and foreclosure; and determinants of interest rates.
- Chapter 3: Time Value of Money, Loan Calculations, and Analysis
  - Part 1: Time value of money, compounding, discounting, PV, FV, intraperiod compounding, inflation, Fisher's equation, purchasing power, intraperiod discounting finding an interest rate and the number of periods, rule 72
  - Part 2: Annuities, FVA, PVA, perpetuities, loan payments and balances, amortization schedules, interest paid within a period, total interest paid within the life of the loan, finding an interest rate and the number of periods with annuities.
  - Part 3: APR calculations, points, refinance analysis, cash budgets, working-capital line of credit.
- Chapter 4: Capital Budgeting and Leasing
  - Part 1: Cost of debt, cost of equity, cost of capital, payback period, simple rate of return

- Part 2: NPV, Benefit/Cost ratio, IRR, leases involving real property, leases involving personal property
- Chapter 5: Financial Statements
  - Cash accounting, accrual accounting, asset valuation methods, income statement, owner's equity statement, balance sheet, current assets, noncurrent assets, current liabilities, noncurrent liabilities, contributed capital, retained earnings, accrual-adjusted income statement, statement of cash flows, operating activities, investing activities, financing activities, coordination of financial statements
- Chapter 6: Financial Statement Analysis
  - Liquidity ratios, solvency, liquidation, liquidity, leverage, solvency ratios, profitability ratios, cash flow budget, common-size income statement, common-size balance sheet, horizontal analysis of financial statements
- Chapter 7: Risk in Agribusiness
  - Financial risk, business risk, risk-free investments, dominating set, portfolio, risk aversion, production risk, price risk, casualty risk, human risk, legal risk, political risk, economic risk, obsolescence risk, techniques to manage risk, forwarding contracting, hedging, futures contract, net hedge selling price, net hedge buying price, basis, earnest money

**Grading:**

Exam 1.....	15.00%
Exam 2.....	15.00%
Exam 3.....	15.00%
Exam 4.....	15.00%
Exercises – Short Exercises and Short Answers...	25.00%
Exercises – MC Questions.....	10.00%
Video Summaries.....	5.00%
	100.00%

Note: There would be an optional final comprehensive exam (Exam 5). The optional final comprehensive exam will replace one (the lowest) exam grade (if you decide to take it).

**Grading Scale:**

<u>Range</u>	<u>Grade</u>
90-100.00	A
80-89.99	B
70-79.99	C
60-69.99	D
Less than 60	F

**Exams:** Make sure you take all the mandatory exams (see Class Schedule below). No makeup exams will be offered. A grade of zero will be assigned to any missed mandatory exams. Exams and quizzes will be administered through eCollege. Exams will be timed and are to be completed by 11:59 PM on the due date. Make sure you have internet access and that your laptop battery is fully charged (if using a laptop computer).

**Exercises:** Exercises will be graded and should be considered very important course material for your exam preparation. Exercises will involve agricultural finance principles and applications. Students will be required to submit their individual answers via eCollege according to the class

schedule provided (see Class Schedule below). Exercises will become active the first day of each week and are to be completed by 11:59 PM on the due date.

**Video Summaries:** Every other chapter you will watch a video online. You will be required to submit your individual video summaries via eCollege according to the class schedule provided (see Class Schedule below). The videos will highlight current agricultural finance issues and trends.

**Review Questions:** Review Questions will NOT be graded. Students are welcome to ask questions during office hours. Review Questions will emphasize on agricultural finance problems that have applications. Review Questions will be selected from the textbook. The students are NOT required to submit their answers.

**Class preparation and attendance:** It is your responsibility to read and study the book chapters that will be covered, to read and study all handouts, to complete and submit all course assignments in-time, and to take all the mandatory exams before the deadline. Students are strongly encouraged to contact the instructor if they have any questions or comments. Email is the best way to contact me. I will be available for in-person consultation in my office by appointment only.

**Students with 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 of their disabilities. If you have a disability requiring an accommodation, please contact:

**Office of Student Disability Resources and Services**  
**Texas A&M University-Commerce**  
**Gee Library**  
**Room 132**  
**Phone (903) 886-5150 or (903) 886-5835**  
**Fax (903) 468-8148**  
[StudentDisabilityServices@tamuc.edu](mailto:StudentDisabilityServices@tamuc.edu)

**Counseling Center:** A student that faces a crisis or a serious and unforeseeable event that affects his/her class performance must contact the Counseling Center, Student Services Building, Room 204, Phone (903) 886-5145. If important class material or course assignments are missed because of such crisis or event, the student must contact the instructor as soon as possible.

**General Policies for Classes:** All students enrolled at the University will follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. See Student's Guide Handbook, Rules and Procedures, Code of Student Conduct (<http://www.tamuc.edu/CampusLife/documents/studentGuidebook.pdf>).

**Academic Integrity:** Students must follow the *Code of Student Conduct* in the *Student Guidebook* (<http://web.tamuc.edu/admissions/studentGuidebook.aspx>). Any form of plagiarism or academic dishonesty will not be tolerated. Academic honesty is defined on *Chapter 13 Students (Academic)* of the *TAMUC Rules and Procedures* (<http://web.tamuc.edu/aboutus/policiesproceduresstandardsstatements/rulesprocedures/>):

“Academic dishonesty” includes, but is not limited to, plagiarism (the appropriation or stealing of the ideas or words of another and passing them off as one’s own), cheating, collusion (the unauthorized collaboration with others), and abuse (destruction, defacing, or removal) of resource material.

**Course Design:** The dates for all class activities and exams are announced in the Class Schedule provided at the end of this syllabus.

**Course access and navigation:** This course will be facilitated using eCollege. Students are required to access important class material from the eCollege website for the course. To get started with the course, go to: <http://www.online.tamuc.org/>. You will need your CWID and password to log in to the course. Make sure you visit this website every day.

If you do not know your CWID or have forgotten your password, contact Technology Services at 903.468.6000 or [helpdesk@online.tamuc.org](mailto:helpdesk@online.tamuc.org)

**Technology Requirements:** The following information has been provided to assist you in preparing to use technology successfully in this course.

- Internet access/connection – high speed recommended (not dial-up)
- Word Processor (i.e. MS Word or Word Perfect)

Additionally, the following hardware and software are necessary to use eCollege:

Our campus is optimized to work in a Microsoft Windows environment. This means our courses work best if you are using a Windows operating system (XP or newer) and a recent version of Microsoft Internet Explorer (6.0, 7.0, or 8.0).

Your courses will also work with Macintosh OS X along with a recent version of Safari 2.0 or better. Along with Internet Explorer and Safari, eCollege also supports the Firefox browser (3.0) on both Windows and Mac operating systems.

It is strongly recommended that you perform a “Browser Test” prior to the start of your course. To launch a browser test, login in to eCollege, click on the ‘myCourses’ tab, and then select the “Browser Test” link under Support Services.

**Important Dates:**

July 6 <sup>th</sup> , Sunday	Summer 2 last day to withdraw with 100% refund.
July 7 <sup>th</sup> , Monday	Summer 2 first class day.
July 9 <sup>th</sup> , Wednesday	Last day to withdraw with 80% refund.
July 10 <sup>th</sup> , Thursday	Summer 2 last day to drop a class with 100% refund while remaining enrolled.
July 10 <sup>th</sup> , Thursday	Last day to add summer 2 class without Instructor’s and Dean’s approvals.
July 15 <sup>th</sup> , Tuesday	Summer 2 last day to withdraw with 50% refund.
July 22 <sup>th</sup> , Tuesday	Summer 2 schedules dropped for non-payment
July 28 <sup>th</sup> , Monday	Summer 2 last day to drop with “Q” grade while remaining enrolled.
August 3 <sup>rd</sup> , Sunday	Summer 2 last day to withdraw (no refund).
August 7 <sup>th</sup> , Thursday	Summer 2 last class day.
August 7 <sup>th</sup> , Thursday	Summer 2 final exams.

*The instructor reserves the right to make modifications to this syllabus during the semester.*

**AEC 340 AGRICULTURAL FINANCE**  
**Class Schedule, Summer 2 2014**  
**Web Based**

Day	Date	Subject/Material Covered	Assignment Due By 11:59 PM on Due Date
<b>Week 1</b>			
Mon.	Jul 7	Syllabus eCollege Tutorial CH01: Intro. to AGRS Finance CH02: Loans: Legal Issues, Terms, Int. Rates	eCollege Tutorial Video Summaries
Tue.	Jul 8	CH01 & CH02 (Cont.)	Exercise - SE or SA Exercise - MC
Wed.	Jul 9	CH03.PART01: Compounding & Discounting	
Th.	Jul 10	CH03.PART01 (Cont.)	Exercise - SE or SA Exercise - MC
<b>Fr.</b>	<b>Jul 11</b>	<b>Exam 1 (CH01 + CH02 + CH03.PART01)</b>	<b>Exam 1</b>
<b>Week 2</b>			
Mon.	Jul 14	CH03.PART02: Annuities	Video Summaries
Tue.	Jul 15	CH03.PART02 (Cont.)	Exercise - SE or SA Exercise - MC
Wed.	Jul 16	CH03.PART03: APR, Refinance, Cash Budgets	
Th.	Jul 17	CH03.PART03 (Cont.)	Exercise - SE or SA Exercise - MC
<b>Fr.</b>	<b>Jul 18</b>	<b>Exam 2 (CH03 PARTS 1, 2, and 3)</b>	<b>Exam 2</b>
<b>Week 3</b>			
Mon.	Jul 21	CH04.PART01: Cost of capital, payback period, simple rate of return.	Video Summaries
Tue.	Jul 22	CH04.PART01 (Cont.)	Exercise - SE or SA Exercise - MC

Wed.	Jul 23	CH04.PART02: NPV, B/C ratio, IRR	
Th.	Jul 24	CH04 (Cont.)	Exercise - SE or SA Exercise - MC
<b>Fr.</b>	<b>Jul 25</b>	<b>Exam 3 (CH04 Parts 1 and 2)</b>	<b>Exam 3</b>
<b>Week 4</b>			
Mon.	Jul 28	CH05: Financial Statements	Video Summaries
Tue.	Jul 29	CH05 (Cont.)	Exercise - SE or SA Exercise - MC
Wed.	Jul 30	CH06: Financial Statement Analysis	
Th.	Jul 31	CH06 (Cont.)	Exercise - SE or SA Exercise - MC
<b>Fr.</b>	<b>Aug 1</b>	<b>Exam 4 (CH05 + CH06)</b>	<b>Exam 4</b>
<b>Week 5</b>			
Mon.	Aug 4	CH07: Risk in Agribusiness	
Tue.	Aug 5	CH07 (Cont.)	Exercise - SE or SA Exercise - MC
Wed.	Aug 6	Study day	
<b>Th.</b>	<b>Aug 7</b>	<b>Optional Exam 5 (CH 1 through 7)</b>	

*This is a tentative class schedule. The instructor reserves the right to make any modification.*