



AEC 340.01W: AGRICULTURAL FINANCE
COURSE SYLLABUS
Fall 2024

INSTRUCTOR INFORMATION

Instructor: Dr. Rafael Bakhtavoryan

Office Location: Agricultural Science Building, Room 232

Office Hours: Mondays through Fridays via email, or by appointment

Office Phone: (903) 886-5367

Office Fax: (903) 886-5990

University Email Address: Rafael.Bakhtavoryan@tamuc.edu (please, use only this email address and put "AEC 340" in the subject of the email)

Preferred Form of Communication: Email

Communication Response Time: Within 24 hours Monday through Friday

COURSE INFORMATION

Class Meeting: Web-based

Readings

Required: PowerPoint Presentations: These will be provided on D2L.

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

Lecture Topics:

Chapter 1: Introduction to Agribusiness Finance

The Role of the Financial Manager; Legal Forms of Business Organization; Objective of the Firm: Maximize Wealth; Agribusiness Finance; Agribusiness Producers; Flow of Funds in the Economy; Importance of Finance to Agribusiness; Domestic Trends in Agribusiness Finance; International Trends.

Chapter 2: 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; Determinants of Interest Rates.

The syllabus/schedule are subject to change.

Chapter 3: Time Value of Money, Loan Calculations, and Analysis

Part 1: The Time Value of Money; The Process of Compounding; The Process of Discounting; Simple Interest vs. Compound Interest; Intraproduct Compounding and Discounting; Inflation or Purchasing Power Implications; Effective Annual Rate (EAR or EFF); Calculating Interest Rate and the Number of Periods; The Rule 72.

Part 2: Annuities; Future Value of Annuities; Present Value of Annuities; Perpetuities; Annuities with Intraproduct Compounding; Amortized Loans; Building a Loan Amortization Schedule; Finding an Interest Rate and the Number of Periods with Annuities.

Part 3: Determining the Annual Percentage Rate; Refinance Analysis; Cash Budgeting.

Chapter 4: Capital Budgeting and Leasing

Part 1: The Cost of Capital; The Payback Method; Simple Rate of Return.

Part 2: Net Present Value; Benefit-Cost Ratio; Internal Rate of Return; Income Taxes and Capital Budgeting; Leases and Leasing; Real Property; Personal Property.

Chapter 5: Financial Statements

Financial Statements; The Income Statement; The Statement of Owner's Equity; The Balance Sheet; Generally Accepted Accounting Principles and the Farm Financial Standards Council; The Accrual-Adjusted Income Statement; The Statement of Cash Flows.

Chapter 6: Financial Statement Analysis

Ratio Analysis; Liquidity Ratios; Solvency Ratios; Profitability Ratios; Repayment Capacity Ratios; Financial Efficiency Ratios; Loan-to-Value Ratio; Common-Size Statements; Horizontal Analysis.

Chapter 7: Risk in Agribusiness

Financial and Business Risk; Risk and Return; Attitudes toward Risk; Sources of Business Risk in Agriculture; Risk Management in Agriculture.

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.

Student Learning Outcomes

After studying all materials and resources presented in this course, students will be able to:

1. Describe the principle of time-value of money and apply this concept to valuing cash flows and capital investment opportunities.
2. Read and analyze financial statements for the purpose of evaluating investment decisions.
3. Understand the conceptual relationship between the expected return and the relevant risk of individual assets and a portfolio of assets.
4. Understand the concept of cost of capital and role of leverage and apply these concepts in the determination of the optimal capital structure.

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COURSE REQUIREMENTS

Minimal Technical Skills Needed

Students are expected to know how to use the learning management system (D2L will be used heavily in this class), Microsoft Word, and PowerPoint.

Financial Calculator

A financial calculator is required for this course and it is strongly recommended that you get one for homework assignments and exams, where you will normally be required to deal quickly with cash flow problems. The *Texas Instrument BA II Plus* financial calculator is a good one to use for this course. Get one and learn how to use it right away. Step-by-step instructions on how to use the *Texas Instrument BA II Plus* financial calculator will be provided in the manual which will be made available to students at the beginning of the semester as well as in the PowerPoint presentations when numerical examples are discussed. Also, I strongly recommend that you watch YouTube videos on how to use *Texas Instrument BA II Plus* financial calculator (a free *BA financial calculator* app can be downloaded and installed on your phone). **Ultimately, it is students' responsibility to know how to use financial calculator in this course.**

Student Responsibilities or Tips for Success in the Course

1. Read the assigned PowerPoint presentations.
2. Complete and turn in course assignments and exams at the scheduled time.
3. Use the web to actively seek out other finance sources that fit your learning style and help you better understand the material.
4. Be prepared for exams.

GRADING

Your grade for the semester will be a weighted average of homework assignments, four equally weighted exams, and a **COMPREHENSIVE** final exam.

Homework assignments	10%
Exam 1	15%
Exam 2	15%
Exam 3	15%
Exam 4	15%
Final exam	30%

Final grades in this course will be based on the following scale:

A = 90%-100%

B = 80%-89.99%

C = 70%-79.99%

D = 60%-69.99%

F = 59.99% or below

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Assessments

HOMEWORK ASSIGNMENTS (HAs): Homework assignments are assigned regularly (see the course outline at the end of the syllabus) and must be completed individually. As a form of experiential learning, HAs help students sharpen their analytical skills. Students must turn in their HAs via D2L according to the course outline. HAs must be completed by 11:30 p.m. (Central Time) on the due date.

EXAMS: Other than for university-excused absences or a valid doctor's excuse, no make-up exams will be given. If an exam is missed a grade of zero will be assessed for it. All exams must be taken on D2L. You will have 1 hour and 30 minutes to take the exam. Final exam is **COMPREHENSIVE** and you will have 2 hours to complete it on D2L.

TECHNOLOGY REQUIREMENTS

LMS

All course sections offered by Texas A&M University-Commerce have a corresponding course shell in the myLeo Online Learning Management System (LMS). Below are technical requirements

LMS Requirements:

<https://community.brightspace.com/s/article/Brightspace-Platform-Requirements>

LMS Browser Support:

https://documentation.brightspace.com/EN/brightspace/requirements/all/browser_support.htm

ACCESS AND NAVIGATION

You will need your campus-wide ID (CWID) and password to log into the course. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or helpdesk@tamuc.edu.

Note: Personal computer and internet connection problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, Starbucks, a TAMUC campus open computer lab, etc.

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COMMUNICATION AND SUPPORT

Technical Support

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778. Other support options can be found here:

<https://community.brightspace.com/support/s/contactsupport>

Interaction with Instructor Statement

The instructor's communication response is stated clearly (see page 1).

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures/Policies

No late assignments will be accepted and a grade of zero will be assessed for them.

Syllabus Change Policy

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

University Specific Procedures

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the [Student Guidebook](#).

<http://www.tamuc.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.aspx>

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum:

<https://www.britannica.com/topic/netiquette>

TAMUC Attendance

For more information about the attendance policy please visit the [Attendance](#) webpage and [Procedure 13.99.99.R0.01](#).

<http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx>

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99.R0.01.pdf>

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Academic Integrity

Students at Texas A&M University-Commerce are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the following procedures:

[Undergraduate Academic Dishonesty 13.99.99.R0.03](#)

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf>

[Graduate Student Academic Dishonesty 13.99.99.R0.10](#)

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/graduate/13.99.99.R0.10GraduateStudentAcademicDishonesty.pdf>

AI Use in Course

Texas A&M University-Commerce acknowledges that there are legitimate uses of Artificial Intelligence, ChatBots, or other software that has the capacity to generate text, or suggest replacements for text beyond individual words, as determined by the instructor of the course.

Any use of such software must be documented. Any undocumented use of such software constitutes an instance of academic dishonesty (plagiarism).

Individual instructors may disallow entirely the use of such software for individual assignments or for the entire course. Students should be aware of such requirements and follow their instructors' guidelines. If no instructions are provided the student should assume that the use of such software is disallowed.

In any case, students are fully responsible for the content of any assignment they submit, regardless of whether they used an AI, in any way. This specifically includes cases in which the AI plagiarized another text or misrepresented sources.

13.99.99.R0.03 Undergraduate Academic Dishonesty
13.99.99.R0.10 Graduate Student Academic Dishonesty

Students with Disabilities - ADA Statement

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:

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Office of Student Disability Resources and Services

Texas A&M University-Commerce

Gee Library - Room 162

Phone (903) 886-5150 or (903) 886-5835

Fax (903) 468-8148

Email: studentdisabilityservices@tamuc.edu

Website: [Office of Student Disability Resources and Services](#)

<http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/>

Nondiscrimination Notice

Texas A&M University-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

Campus Concealed Carry Statement

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations.

For a list of locations, please refer to the [Carrying Concealed Handguns On Campus](#) document and/or consult your event organizer.

Web url:

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf>

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

A&M-Commerce Supports Students' Mental Health

The Counseling Center at A&M-Commerce, located in the Halladay Building, Room 203, offers counseling services, educational programming, and connection to community resources for students. Students have 24/7 access to the Counseling Center's crisis assessment services by calling 903-886-5145. For more information regarding Counseling Center events and confidential services, please visit www.tamuc.edu/counsel

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COURSE OUTLINE
AEC 340.01W: Agricultural Finance
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WEB-BASED

Weeks	Topic/All assignments are due on D2L on specific dates listed below by 11:30 p.m. For example, homework assignment_Ch1 is due September 8 by 11:30 p.m., or homework assignment_Ch2 is due September 15 by 11:30 p.m., or EXAM 1 is due September 29 by 11:30 p.m.
Week 1 Aug 26 – Sep 1	Syllabus, D2L tutorial, installing a free <i>BA financial calculator</i> app on your phone
Week 2 Sep 2 – Sep 8	Chapter 1. Introduction to Agribusiness Finance Homework Assignment_Ch1
Week 3 Sep 9 – Sep 15	Chapter 2. Agribusiness Loans: Legal Issues, Terms, and Interest Rates Homework Assignment_Ch2
Week 4 Sep 16 – Sep 22	Chapter 3. Time Value of Money, Loan Calculations & Analysis_Part 1 Homework Assignment_Ch3_Part1
Week 5 Sep 23 – Sep 29	EXAM 1. Chapters 1, 2, and Chapter 3_Part 1
Week 6 Sep 30 – Oct 6	Chapter 3. Time Value of Money, Loan Calculations & Analysis_Part 2 Homework Assignment_Ch3_Part2
Week 7 Oct 7 – Oct 13	Chapter 3. Time Value of Money, Loan Calculations & Analysis_Part 3 Homework Assignment_Ch3_Part3
Week 8 Oct 14 – Oct 20	EXAM 2. Chapter 3_Part 2 and Chapter 3_Part 3
Week 9 Oct 21 – Oct 27	Chapter 4. Capital Budgeting and Leasing_Part 1 Homework Assignment_Ch4_Part1
Week 10 Oct 28 – Nov 3	Chapter 4. Capital Budgeting and Leasing_Part 2 Homework Assignment_Ch4_Part2
Week 11 Nov 4 – Nov 10	EXAM 3. Chapter 4_Part 1 and Chapter 4_Part 2
Week 12 Nov 11 – Nov 17	Chapter 5. Financial Statements Homework Assignment_Ch5
Week 13 Nov 18 – Nov 24	Chapter 6. Financial Statement Analysis Homework Assignment_Ch6
Week 14 Nov 25 – Dec 1	EXAM 4. Chapters 5 and 6 <i>(please note while this is also the Thanksgiving week, you still have to submit Exam 4)</i>
Week 15 Dec 2 – Dec 8	Chapter 7. Risk in Agribusiness Homework Assignment_Ch7

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Week 16

Dec 9 – Dec 12

FINAL EXAM. Chapters 1 through 7

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