



TEXAS A&M UNIVERSITY
SAN ANTONIO

QMBS 2301.602: Quantitative Skills - Business

Fall 2025, CRN: 11547

Department of Accounting & Finance, College of Business

Course Syllabus

Class Modality:	Online
Class Meeting Time and Place:	Online -Asynchronous
Class Duration:	08/25/2025 – 12/12/2025
Instructor:	Ashley S. Arriaga E-mail: aarriaga@tamusa.edu Student emails will receive a reply within two business days.

Course Website: <https://tamusa.blackboard.com/>

Catalog Course Description: This course is a comprehensive introduction to the concepts and applications of mathematics to commercial business problems. The course focuses on the quantitative and analytical methods in the context of practical business applications to enhance essential problem-solving skills of business students. This course will expose students to the major business applications to be encountered in business courses through approaches that reinforce formulation, reasoning and interpretive problem-solving skills essential to practical understanding of business concepts.

Course Objectives: The objective of the course is to describe the major business applications which students will encounter in the future business courses.

Prerequisites: MATH 1324 or 1314, CISA 1305 or CSCI 1336.

Student Learning Outcomes: After successful completion of this course, students will be able to: 1) Understand how basic problems in an array of business applications are formulated,
2) Apply basic problem-solving methods in business applications,
3) Explain the basic decision analysis processes applied in business,
4) Use and interpret information/data organization related to business applications.
5) Apply critical thinking methods in interpreting business application presentations related to business concepts.
6) Perform quantitative financial computations using a range of resources to include software tools.

AACSB Assessment:

The College of Business is in the process of applying for AACSB accreditation. As part of that process, students will be assessed on program level outcomes based on course outcomes from various courses. The materials from this course may be used for assessing such program level outcomes, and hence students must follow the necessary rigor to ensure mastery and retention of the above course outcomes.

Required Materials:

- **Textbook (e-book): Contemporary Mathematics for Business and Consumers, 9th Ed., by Brechner & Bergeman**
- **Blackboard:** Connect to <http://tamusa.blackboard.com>. You will have lecture notes, solutions to problems, multimedia materials and other supplementary materials in Blackboard. All class communications will be through Blackboard and students should monitor this several times a day.
- **Computer Hardware:** In order to participate in the tutoring sessions (if offered) you will need a computer with an internet connection, a microphone and speakers/headphones.
- **Calculator**
- **Time Expectation for Coursework:** You are expected to spend 2-4 hours per week for the course. Based on the background, some students may require more time. Time spent may be longer when assignment/exams are due.

Other Recommended / Reading Materials: Additional reading materials are available on the course website as recommended by the instructor.

Course Requirements every student must fulfill in order to succeed in course:

1. Students should check the Course Calendar, Announcements, and Messages (e-mail) systems in Blackboard on a regular basis.
2. Students should keep current with all course assignments, quizzes, and examinations.
3. If the course uses remote proctoring for exams, students must schedule their exam early in the semester.
4. Students should ask questions and communicate with the instructor either in class, online, off-line or during office hours.
5. For all classwork, exams, quizzes etc., if a student is completing it off-campus, then they are responsible for availability of internet connectivity. Extensions will not be granted for lack of availability of internet connections.
6. Students should remember that online and hybrid courses assume greater responsibility and independent learning skills by the student for their own learning outcomes.
7. For online courses, students should keep current on class recordings, if not attending the live class (either in person or online).
8. For online asynchronous courses, there will be no online class sessions. All materials will be made available through Blackboard or through online links.
9. For online asynchronous courses, there will be NO online class sessions as indicated. All materials will be made available through Blackboard or through online links.

Grading Policy: The final course grade will be based on your performance on the quizzes, exams, assignments and class participation using the following weights:

Assignments	30%
Discussion Posts	30%
Quizzes (2 at 10% each)	20%
Final Project	<u>20%</u>
Total	100%

The final letter grades will be assigned as follows: Above 90% $\Rightarrow$ A; 80 – 89% $\Rightarrow$ B; 70 – 79% $\Rightarrow$ C; 60 – 69% $\Rightarrow$ D; Below 60% $\Rightarrow$ F.

This course has a requirement of a grade of C as a minimal grade for satisfactory completion of this course.

Assignments: There will be 6 homework assignments during the course. The assignments must be completed on Blackboard by Sunday of the week they are assigned, unless stated otherwise. For all assignments, ALL intermediate work of the problem solution steps MUST be shown. This includes the use of the formula, the values substituted in the formulas for problem solution, as well the intermediate steps of the arithmetic computation. The units of measurement are extremely important and MUST be shown at each stage of the computation. Considerable points will be taken off for not following these requirements.

Discussion: There will be 5 discussion posts throughout the semester centered around specific chapters and math concepts. Each post will ask you to apply what you've learned to the fictional business you are creating. This task is to help you gather information throughout the semester for your final project.

Quizzes: There will be 2 mandatory quizzes. The quizzes will consist of conceptual multiple-choice questions, problem solving questions, and short essay questions. The quiz materials will come from lecture notes, the text, the homework, and class discussions. Questions will emphasize understanding and applications of concepts and topics covered in class.

Project: There will a mandatory final project due at the end of the semester. You create a PowerPoint presentation detailing information. Information on the requirements and grading breakdown for this project will be discussed in class and posted on Blackboard.

The course is intensive and challenging, and you are expected to master the materials presented in class. The structure of the class makes your individual study and preparation outside of class extremely important and may vary considerably based on student background. However, a **minimum** of four hours of work outside the class is expected for every one hour of class period per week.

Use of Generative AI Permitted Under Some Circumstances or With Explicit Permission:

There are situations and contexts within this course where you may be asked to use artificial intelligence (AI) tools to explore how they can be used. Outside of those circumstances, you should not use AI tools to generate content (text, video, audio, images) that will end up in any student work (assignments, activities, discussion responses, etc.) that is part of your evaluation in this course. Any student work submitted using AI tools should clearly indicate with attribution what work is the student's work and what part is generated by the AI. In such cases, no more than 25% of the student work should be generated by AI. If any part of this is confusing or uncertain, students should reach out to their instructor for clarification before submitting work for grading. Use of AI-generated content without the instructor's permission and/or proper attribution in this course qualifies as academic dishonesty and violates Texas A&M-San Antonio's standards of academic integrity.

Make up and Late Assignment/Exam policy:

As a general rule, make-ups or late submissions will NOT be offered or accepted for any missed assignments/exams. Late submissions or make-ups may be accepted/administered only in extra-ordinary circumstances such as an excused official university activity, a severe illness, or a dire emergency. However, you must provide comprehensive documentation either before or within a few days of the missed assignment/ exam.

Class Conduct and Civility Code: Everyone in class is expected to follow all rules in the student handbook, as well as common courtesy during classroom lectures and discussions in class and online, including the following:

1. It is the students' responsibility to obtain and be able to use the required materials and software for this class.
2. Student must retain copies of all assignments and graded work for verification purposes and provide it to the instructor, if necessary. Keep own copies of all computer files and e-mails till final grade is received.
3. Talking while the instructor is lecturing is extremely disruptive and discourteous to the instructor and other students.
4. Using computers or phones (except for a valid urgent need) during class for a purpose not related to class is disruptive. All cell phones and gadgets should be turned OFF and headphones removed.
5. For any questions about the exams and assignments, a student should contact the instructor, well in advance of the day they are due, so the instructor may have enough time to provide feedback.
6. All communications will be via e-mail communications to the Texas A&M University e-mail account, and students are expected to use their school provided email account. The instructor will reply to a student e-mail messages and voice messages within 2 business days (Monday-Friday).
7. All assignment submissions must be uploaded to Blackboard by the due date and time. Submission window may close or marked late, even if late by one second.\

Anyone violating these policies may be subject to disciplinary actions.

Fall 2025 QMBS 2301-602 Class Schedule

The provisions and information set forth in the schedule below are intended to be informational and not contractual in nature. The instructor reserves the right to amend, alter, change, delete or modify the provisions of the schedule.

	Dates		Topics	Chapter	Homework
Week 1	8/25	Mon.	Syllabus Day		<i>Discussion: Build Your Business</i>
	8/31	Sun.	Checking Accounts	4	
Week 2	9/1	Mon.	LABOR DAY		
			Percents and Their Applications in Business	6	1. Questions in 4 and 6
	9/7	Sun.			
Week 3	9/8	Mon.	Invoices, Trade Discounts, and Cash Discounts	7	2. Questions on Ch. 7
	9/14	Sun.			
Week 4	9/15	Mon.	Invoices, Trade Discounts, and Cash Discounts (con't)	7	<i>Discussion: Invoices, Discounts and Billing</i>
	9/21	Sun.			
Week 5	9/22	Mon.	Markup and Markdown	8	3. Questions on Ch. 8
	9/28	Sun.			
Week 6	9/29	Mon.	QUIZ 1		
	10/5	Sun.			
Week 7	10/6	Mon.	Payroll	9	4. Questions on Ch. 9
	10/12	Sun.			
Week 8	10/13	Mon.	Payroll (con't)	9	<i>Discussion: Everyone Wants More Money</i>
	10/19	Sun.			
Week 9	10/20	Mon.	Simple Interest and Promissory Notes	10	5. Questions on Ch. 10
	10/26	Sun.			
Week 10	10/27	Mon.	Simple Interest and Promissory Notes (con't)	10	<i>Discussion: How Much Is That Going to Cost Us?</i>
	11/2	Sun.			
Week 11	11/3	Mon.	QUIZ 2		
	11/9	Sun.			
Week 12	11/10	Mon.	Compound Interest and Present Value	11	6. Questions on Ch. 11
	11/16	Sun.			
Week 13	11/17	Mon.	Compound Interest and Present Value (con't)	11	<i>Discussion: Worth It?</i>
	11/23	Sun.			
Week 14	11/24	Mon.	WORK ON PROJECTS		
	11/30	Sun.	THANKSGIVING HOLIDAY		
Week 15	12/1	Mon.	WORK ON PROJECTS		
	12/7	Fri.	STUDY DAYS		
Week 16 12/8 - 12/13 FINAL PROJECT					

IMPORTANT POLICIES AND RESOURCES

Academic Accommodations for Individuals with Disabilities: Texas A&M University-San Antonio is committed to providing all students with reasonable access to learning opportunities and accommodations in accordance with The Americans with Disabilities Act, as amended, and Section 504 of the Rehabilitation Act. If you experience barriers to your education due to a disability or think you may have a disability, Disability Support Services is located in the Central Academic Building, Suite 210.

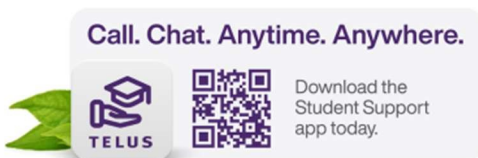
You can also contact us via phone at (210) 784-1335, visit us <https://www.tamusa.edu/DisabilitySupport-Services/index.html> or email us at dss@tamusa.edu. Disabilities may include, but are not limited to, attentional, learning, mental health, sensory, physical, or chronic health conditions. All students are encouraged to discuss their disability-related needs with Disability Support Services as soon as possible.

Academic Learning Center: The Academic Learning Center provides free course-based tutoring to all currently enrolled students at Texas A&M University-San Antonio. Students wishing to work with a tutor can make appointments through the Brainfuse online tutoring platform. Brainfuse can be accessed in the Tools section of Blackboard. You can contact the Academic Learning Center by emailing tutoring@tamusa.edu, calling (210) 784-1307, or visiting the Central Academic Building, room 202.

Counseling/Mental Health Resources: As a college student, there may be times when personal stressors interfere with your academic performance and negatively impact your daily functioning. If you are experiencing emotional difficulties or mental health concerns, support is available to you through the Student Counseling Center (SCC). To schedule an appointment, call 210-784-1331 or visit Madla 120.

All mental health services provided by the SCC are free and confidential (as the law allows). The Student Counseling Center provides brief individual and group therapy, crisis intervention, consultation, case management, and prevention services. For more information on SCC services visit <http://tamusa.edu/studentcounseling>. Crisis support is available 24/7 by calling the SCC at 210-784-1331.

Additionally, the TELUS Student Support App provides a variety of mental health resources to including support for in the moment distress, an anonymous peer-to-peer support network, mental health screenings, podcasts, and articles to improve your mental wellbeing.



Emergency Preparedness: JagE Alert is Texas A&M University-San Antonio's mass notification. In the event of an emergency, such as inclement weather, students, staff and faculty, who are registered, will have the option to receive a text message, email with instructions and updates. To register or update your information visit: <https://tamusa.bbcportal.com>

More information about Emergency Operations Plan and the Emergency Action Plan can be found here: <https://www.tamusa.edu/about-us/emergency-management/>

Download the SafeZone App (<https://safezoneapp.com/>) for emergencies or call (210) 784-1911. Non-Emergency (210) 784-1900.

Financial Aid and Verification of Attendance: According to the following federal regulation, 34 CFR 668.21: U.S. Department of Education (DoE) Title IV regulation, a student can only receive Title IV funds based on Title IV eligibility criteria which include class attendance. If Title IV funds are disbursed to ineligible students (including students who fail to begin attendance), the institution must return these funds to the U.S. DoE within 30 days of becoming aware that the student will not or has not begun attendance. Faculty will provide the Office of Financial Aid with an electronic notification if a student has not attended by the published Census Date (the first week of class). Any student receiving federal financial aid who does not attend prior to the published Census Date (the first week of class) will have their aid terminated and returned to

the DoE. Please note that any student who stops attending at any time during the semester may also need to return a portion of their federal aid.

Writing, Language, and Digital Composing Center: The Writing, Language, and Digital Composing Center supports graduate and undergraduate students in all three colleges as well as faculty and staff. Tutors work with students to develop reading skills, prepare oral presentations, and plan, draft, and revise their written assignments. Our language tutors support students enrolled in Spanish courses and students composing in Spanish for any assignment. Our digital studio tutors support students working on digital projects such as eportfolios, class presentations, or other digital multimedia projects. Students can schedule appointments through JagWire under the Student Services tab. Click on “Writing, Language, and Digital Composing Center” to make your appointment. The Center offers face-to-face, synchronous online, and asynchronous digital appointments. More information about what services we offer, how to make an appointment, and how to access your appointment can be found on our website at <https://www.tamusa.edu/academics>.

Meeting Basic Needs: Any student who has difficulty affording groceries or accessing sufficient food to eat every day or who lacks a safe and stable place to live, and believes this may affect their performance in the course, is urged to submit a CARE referral (<https://www.tamusa.edu/university-policies/StudentRights-and-Responsibilities/file-a-report.html>) for support. Furthermore, please notify the professor if you are comfortable in doing so. This will enable them to direct you to available resources.

Military Affairs: Veterans and active-duty military personnel are welcomed and encouraged to visit the Office of Military Affairs for any question involving federal or state VA Education Benefits. Visit the Patriots’ Casa building, room 202, or to contact the Office of Military Affairs with any questions at military.va@tamusa.edu or (210)784-1397.

Religious Observances: Texas A&M University-San Antonio recognizes the diversity of faiths represented among the campus community and protects the rights of students, faculty, and staff to observe religious holidays according to their tradition. Under the policy, students are provided with an opportunity to make up any examination, study, or course work requirements that may be missed due to a religious observance provided they notify their instructors before the end of the second week of classes for regular session classes.

The Six-Drop Rule: Students are subject to the requirements of Senate Bill (SB) 1231 passed by the Texas Legislature in 2007. SB 1231 limits students to a maximum of six (6) non-punitive course drops (i.e., courses a student chooses to drop) during their undergraduate careers. A non-punitive drop does not affect the student’s GPA. However, course drops that exceed the maximum allowed by SB 1231 will be treated as “F” grades and will impact the student’s GPA.

Statement of Harassment and Discrimination: Texas A&M University-San Antonio is committed to the fundamental principles of academic freedom, equal opportunity, and human dignity. To fulfill its multiple missions as an institution of higher learning, A&M-San Antonio encourages a climate that values and nurtures collegiality and the uniqueness of the individual on our campus and within our state, nation, and world. All decisions and actions involving students and employees are to be based on applicable law and individual merit. Texas A&M University-San Antonio, in accordance with applicable federal and state law, prohibits discrimination, including harassment, on the basis of race, color, sex, religion, national origin, age, disability, genetic information, veteran status, sexual orientation, or pregnancy/parenting status. Individuals who believe they have experienced harassment or discrimination prohibited by this statement are encouraged to contact the University’s Civil Rights Officer at 210-784-2061 or titleix@tamusa.edu.

Texas A&M University-San Antonio faculty are committed to providing a safe learning environment for all students and for the university as a whole. If you have experienced any form of sex- or gender-based discrimination or harassment, including sexual assault, sexual harassment, domestic or dating violence, or stalking based on sex, know that help and support are available. A&M-San Antonio’s Title IX Coordinator can support those impacted by such conduct in navigating campus life, accessing health and counseling services, providing academic and housing accommodations, and more. The university strongly encourages all students to report any such incidents to the Title IX Coordinator. Please be aware that all A&M-San Antonio employees (other than those designated as confidential resources such as counselors and trained victim advocates) are required to report information about such discrimination and harassment to the university. This means that if you tell a faculty member about a situation of sexual harassment, sexual violence, or other related sex-based misconduct, the faculty member must share that information with the university’s Title IX Coordinator (titleix@tamusa.edu, 210-784-2061, CAB 439K). If you wish to speak to a confidential employee who does not have this reporting requirement, you can contact the Student Counseling Center at (210) 784-1331 or visit them in Madla 120.

Pregnant/Parenting Students: Texas A&M-San Antonio does not require a pregnant or parenting student, solely because of that status or issues related to that status, to (1) take a leave of absence or withdraw from their degree or certificate program; (2) limit the student's studies; (3) participate in an alternative program; (4) change the student's major, degree, or certificate program; or (5) refrain from joining or cease participating in any course, activity, or program at the University. The university will provide such reasonable modifications to pregnant students as would be provided to a student with temporary medical condition that are related to the health and safety of the student and the student's unborn child. These could include maintaining a safe distance from substances, areas, and activities known to be hazardous to pregnant individuals and their unborn child; excused absences because of illness or medical appointments; modified due dates for assignments; rescheduled tests/exams; taking a leave of absence; and being provided access to instructional materials and video recordings of lectures for excused absences, if these would be provided to any other student with an excused absence. Pregnant/parenting students are encouraged to contact the Title IX Coordinator with any questions or concerns related to their status (titleix@tamusa.edu; 210-784-2061; CAB 439K). Texas A&M-San Antonio has also designated the Title IX Coordinator as the liaison officer for current or incoming students who are the parent or guardian of a child younger than 18 years of age. The Title IX Coordinator can provide students with information regarding support services and other resources.

Young Jaguars: can support parenting students with daycare who meet this criteria: Must be enrolled in classes at TAMUSA in the current semester. Must be Pell eligible or a single parent. They serve children ages 3 to 12-years-old. Children must be enrolled in Pre-K-3 through 6th grade. youngjaguars@tamusa.edu (210) 784-2636

Students' Rights and Responsibilities: The following statement of students' rights and responsibilities is intended to reflect the philosophical base upon which University Student Rules are built. This philosophy acknowledges the existence of both rights and responsibilities, which is inherent to an individual not only as a student at Texas A&M University-San Antonio but also as a citizen of this country.

Students' Rights

1. A student shall have the right to participate in a free exchange of ideas, and there shall be no University rule or administrative rule that in any way abridges the rights of freedom of speech, expression, petition and peaceful assembly as set forth in the U.S. Constitution.
2. Each student shall have the right to participate in all areas and activities of the University, free from any form of discrimination, including harassment, on the basis of race, color, national or ethnic origin, religion, sex, disability, age, sexual orientation, gender identity, gender expression, and pregnancy/parenting or veteran status in accordance with applicable federal and state laws.
3. A student has the right to personal privacy except as otherwise provided by law, and this will be observed by students and University authorities alike.
4. Each student subject to disciplinary action arising from violations of university students' rules shall be assured a fundamentally fair process.

Students' Responsibilities

1. A student has the responsibility to respect the rights and property of others, including other students, the faculty, and administration.
2. A student has the responsibility to be fully acquainted with the published University Student Rules found in the Student Handbook, Student Code of Conduct, on our website, and University Catalog, and to comply with them, as well as with federal, state, and local laws.
3. A student has the responsibility to recognize that student actions reflect upon the individuals involved and upon the entire University community.
4. A student has the responsibility to recognize the University's obligation to provide a safe environment for learning.
5. A student has the responsibility to check their university email for any updates or official university notifications.

We expect that students will behave in a manner that is dignified, respectful, and courteous to all people, regardless of sex, ethnic/racial origin, religious background, sexual orientation, or disability. Conduct that infringes on the rights of another individual will not be tolerated.

Students are expected to exhibit a high level of honesty and integrity in their pursuit of higher education. Students engaging in an act that violates the standards of academic integrity will find themselves facing academic and/or disciplinary sanctions. Academic misconduct is any act, or attempt, which gives an unfair advantage to the student. Additionally, any behavior specifically prohibited by a faculty member in the course syllabus or class discussion may be considered as academic misconduct. For more information on academic misconduct policies and procedures please review the Student Code of Conduct (<https://www.tamusa.edu/university-policies/student-rights-and-responsibilities/documents/Student-Handbook-2022-23.pdf>) or visit the resources available in the OSRR website (<https://www.tamusa.edu/university-policies/student-rights-and-responsibilities/academicintegrity.html>).

Key Dates for Fall 2025 Semester

The complete academic calendar is available online:

<https://www.tamusa.edu/academics/academic-calendar/index.html>

August 25	First day of class
September 1	Labor Day Holiday
September 10	Census Date
November 14	Last day to drop with an automatic “W”
November 25	Last day to drop a course or withdraw from the University
November 26	Study Day – No classes
November 27-29	Thanksgiving Holiday – No classes
December 4	Last day of classes
December 5	Study Day – No classes
December 6-12	Final exams