



MIS 4320 - Data Mining and Buss Intel

Fall 2026 Syllabus, Section 180, CRN 17788

Instructor Information

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Office Hours:
M-Th 6:00-7:30 PM
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Times and Location

Does Not Meet Face-to-Face

Course Description

This course will introduce students to various statistical techniques frequently used in analyzing data to generate information useful in business decision-making. Advanced data analytic techniques such as mathematical optimization, data mining, and artificial intelligence models will also be introduced using software-based data analytic tools. Prerequisite: DS 2310 or permission of instructor.
Intl Business&Tech Studies Department, Sanchez School of Business

Additional Course Information

Responsible AI Use Statement

Artificial intelligence is not supposed to replace your learning, but to support it. As such, you are encouraged to use appropriate AI technologies responsibly to deepen your knowledge, explore analytical approaches, improve your code, and refine your written communication.

When using AI tools, you should:

- Use AI to support your learning, brainstorming, problem-solving, and revision rather than to complete your work without understanding it;
- Critically assess all AI-generated content produced for its accuracy, bias, sufficiency, and relevance, before incorporating it into your assignments;
- Verify any suggested analytical results, calculations, code, references, and proposed conclusions using course materials and your own judgment;
- When appropriate, you should acknowledge when you have made heavy use of AI tools;

Ensure that all aspects of your submission reflect your own understanding whilst abiding by the course regulations relating to academic integrity.

Your ability to critically assess AI-generated content is an important professional skill. Responsible AI use includes knowing when to rely on AI, when to question what it produces, and when independence of analysis is needed.

Program Learning Outcomes

This course introduces core programming basics—including data types, control structures, algorithm development, and program design with functions—via the Python programming language. The course discusses the fundamental principles of Object-Oriented Programming, as well as in-depth data and information processing techniques. Students will problem-solve, explore real-world software development challenges, and create practical and contemporary applications using graphical user interfaces, graphics, and network communications.



Student Learning Outcomes

Course Objectives:

- CO1: Identify patterns in large datasets using data mining techniques.
- CO2: Interpret the results of statistical analyses to support data-driven business decisions.
- CO3: Select appropriate statistical or analytical techniques for various business problems.
- CO4: Evaluate the potential use cases and limitations of artificial intelligence models in business analytics.

Module Objectives:

Module 1

- MO1.1: Demonstrate the need for computerized support of managerial decision-making (CO1)
- MO1.2: Recognize the evolution of such computerized support to the current state of analytics/data science and artificial intelligence (CO2)
- MO1.3: Describe the business intelligence (BI) methodology and concepts (CO3)

Module 2

- MO2.1: Interpret the concepts of artificial intelligence (AI) (CO1)
- MO2.2: Describe human and machine intelligence (CO2)
- MO2.3: Evaluate the major AI technologies and some derivatives (CO3)

Module 3

- MO3.1: Examine the nature of data as it relates to business intelligence (BI) and analytics (CO1)
- MO3.2: Categorize the methods used to make real-world data analytics ready (CO2)
- MO3.3: Evaluate the wide range of enabling technologies for Big Data analytics (CO3)

Module 4

- MO4.1: Differentiate data warehousing architectures (CO1)
- MO4.2: Describe the processes used in developing and managing data warehouses (CO2)
- MO4.3: Evaluate data integration and the extraction, transformation, and load (ETL) processes (CO3)

Module 5

- MO5.1: Define data mining as an enabling technology for business analytics (CO1)
- MO5.2: Recognize the wide range of applications of data mining (CO2)
- MO5.3: Evaluate different methods and algorithms of data mining (CO3)

Module 6

- MO6.1: Describe text mining and understand the need for text mining (CO1)
- MO6.2: Differentiate among text analytics, text mining, and data mining (CO2)
- MO6.3: Compare the different application areas for text mining (CO3)

Module 7

- MO7.1: Interpret what deep learning is and how it is changing the world of computing (CO1)
- MO7.2: Illustrate how traditional "shallow" artificial neural networks (ANN) work (CO2)
- MO7.3: Analyze deep learning methods (CO3)

Module 8

- MO8.1: Explain the basic concepts of analytical decision modeling (CO1)
- MO8.2: Describe how spreadsheets can be used for analytical modeling and solutions (CO2)
- MO8.3: Develop the basic concepts of optimization and when to use them (CO3)

Module 9

- MO9.1: Explain the landscape of analytics and data science tools and platforms (CO1)
- MO9.2: Implement the simple classification of the analytics tools (CO2)



- MO9.3: Experiment the best tool for a given analytics project (CO3)

Module 10

- MO10.1: Describe the current and future use of cloud computing in business analytics (CO1)
- MO10.2: Argue how geospatial and location-based analytics are assisting organizations (CO2)
- MO10.3: Evaluate image analytics and the use of images as an alternative source of data (CO3)

Module 11

- MO11.1: Describe the major implementation issues of intelligent technologies (CO1)
- MO11.2: Manage the deployment issues of intelligent systems (CO2)
- MO11.3: Explain the major impacts on organizations and society (CO3)

Important Dates

Visit the Academic Calendar (tamiu.edu) (<https://www.tamiu.edu/academiccalendar/>) page to view the term's important dates.

Textbooks

Group	Title	Author	ISBN
Required	Business Intelligence, Analytics, Data Science, and AI	Ramesh Sharda Dursun Delen Efraim Turban	9780137931361

Other Course Materials

Individual Quizzes:

Individual quizzes consist of chapter exercises. Chapter Exercises consist of data analytics problems presented in each chapter. Information on particular assigned problems to solve will be available on Blackboard. The weekly quizzes must be submitted through Blackboard on the scheduled submission date, the Sunday of the week assigned on or before 11.59 pm.

Exams:

There will be a total of three exams in this course. These exams will contain multiple-choice questions. The problems will be similar to the ones that will be provided in the Chapter Exercises. All exams will be timed. Once you start an exam, you must finish it in one sitting. All exams are on Sunday of the assigned week.

To go to the bookstore, TAMIU Books and Spirit Store (<https://www.bkstr.com/texasaminternationalstore/home/>).

Respondus LockDown Browser/Monitor. Contact elearning@tamiu.edu for the syllabus statement and other information.

We will use Google Colab (Gemini) for the lecture and lab assignment this semester. The detailed instructions are available in the course content folder.

Grading Criteria

GRADE	PERCENTAGE
A	91-100
B	80-90.9
C	70-79.9
D	60-69.9
F	Below 60



Open Boilerplate

ASSIGNMENT	VALUE
Quiz #1	4
Quiz #2	4
Quiz #3	4
Quiz #4	4
Quiz #5	4
Quiz #6	4
Quiz #7	4
Quiz #8	4
Quiz #9	4
Quiz #10	4
Discussion Forum #1	1
Discussion Forum #2	1
Discussion Forum #3	1
Discussion Forum #4	1
Discussion Forum #5	1
Discussion Forum #6	1
Discussion Forum #7	1
Discussion Forum #8	1
Discussion Forum #9	1
Discussion Forum #10	1
Exam #1	10
Exam #2	10
Final Exam	10
Term Project-Choosing Topic	1
Term Project-Prepare A Markdown File For Project Outline	2
Term Project-Create Workflow	2
Term Project-Submit the Proposal in Markdown Format	3
Term Project-Data Curation And Processing	2
Term Project-Data Report Generation	3
Term Project- Create Task Prompts	1
Term Project-AI-Assisted Coding	1
Term Project-Code Refactoring	1
Term Project-Create Project Report	2
Term Project-Project Presentation via Google Colab or Github Repos	2
Course Total	100

Course Calendar

Week of	Agenda/Topic	Reading(s)	Due
8/24	Module 1: An Overview of Business Intelligence, Analytics, Data Science, and AI	Read Chapter 1, Lecture 1 PowerPoint, How to Set Up Google COLAB, Lecture 1 Gemini Notebook Code Watch Videos	Quiz#1 Discussion Forum #1 Initial Post Discussion Forum #1 Three Replies Term Project – Choosing Topic Submission
8/31	Module 2: Artificial Intelligence, Robotics, and Smart Systems	Read Chapter 2, Lecture 2 PowerPoint, Lecture 2 Gemini Notebook Watch Videos	Quiz#2 Discussion Forum #2 Initial Post Discussion Forum #2 Three Replies Term Project – Prepare a Markdown File for Project Outline Submission



9/7	Module 3: Descriptive Analytics I: Nature of Data, Big Data, and Statistical Modeling	Read Chapter 3, Lecture 3 PowerPoint, Lecture 3 Gemini Notebook Watch Videos	Quiz#3 Discussion Forum #3 Initial Post Discussion Forum #3 Three Replies Term Project – Create Workflow Submission
9/14	Exam #1	Review Lectures 1-3	Complete Exam #1
9/21	Module 4: Descriptive Analytics II: Business Intelligence, Data Warehousing, and Visualization	Read Chapter 4, Lecture 4 PowerPoint, Lecture 4 Gemini Notebook Watch Videos	Quiz#4 Discussion Forum #4 Initial Post Discussion Forum #4 Three Replies Term Project – Submit the Proposal in Markdown Format Submission
9/28	Module 5: Predictive Analytics I: Data Mining Process, Methods, and Algorithms	Read Chapter 5, Lecture 5 PowerPoint, Lecture 5 Gemini Notebook Watch Videos	Quiz#5 Discussion Forum #5 Initial Post Discussion Forum #5 Three Replies Term Project – Data Curation and Processing Submission
10/5	Module 6: Predictive Analytics II: Text, Web, and Social Media Analytics	Read Chapter 6, Lecture 6 PowerPoint, Lecture 6 Gemini Notebook Watch Videos	Quiz#6 Discussion Forum #6 Initial Post Discussion Forum #6 Three Replies Term Project – Data Report Generation Submission
10/12	Exam #2	Review Lectures 4-6	Complete Exam #2
10/19	Module 7: Deep Learning and Cognitive Computing	Read Chapter 7, Lecture 7 PowerPoint, Lecture 7 Gemini Notebook Watch Videos	Quiz#7 Discussion Forum #7 Initial Post Discussion Forum #7 Three Replies Term Project – Create Task Prompts Submission
10/26	Module 8: Prescriptive Analytics: Optimization and Simulation	Read Chapter 8, Lecture 8 PowerPoint, Lecture 8 Gemini Notebook Watch Videos	Quiz#8 Discussion Forum #8 Initial Post Discussion Forum #8 Three Replies Term Project – AI Assisted Coding Submission
11/2	Module 9: Landscape of Business Analytics Tools	Read Chapter 9, Lecture 9 PowerPoint, Lecture 9 Gemini Notebook Watch Videos	Quiz#9 Discussion Forum #9 Initial Post Discussion Forum #9 Three Replies Term Project – Project-Code Refactoring Submission
11/9	Module 10: AI-Based Trends in Analytics and Data Science	Read Chapter 10, Lecture 10 PowerPoint, Lecture 10 Gemini Notebook Watch Videos	Quiz#10 Discussion Forum #10 Initial Post Discussion Forum #10 Three Replies Term Project – Create Project Report Submission
11/16	Module 11: Ethical, Privacy, and Managerial Considerations in Analytics	Read Chapter 11, Lecture 11 PowerPoint, Lecture 11 Gemini Notebook Watch Videos	Term Project – Project Presentation via Google Colab or Github Repos Submission
11/23	Thanksgiving Holiday		
11/30	Project Report	Project report review and feedback	Review for Final Exam
12/7	Final Exam Module	Review Lectures 7-11	Complete Final Exam

University/College Policies

Please see the University Policies below.

COVID-19 Related Policies

If you have tested positive for COVID-19, please refer to the Student Handbook, Appendix A (Attendance Rule) for instructions.

Required Class Attendance

Students are expected to attend every class in person (or virtually, if the class is online) and to complete all assignments. If you cannot attend class, it is your responsibility to communicate absences with your professors. The faculty member will decide if your excuse is valid and thus may provide lecture materials of the class. According to University policy, acceptable reasons for an absence, which cannot affect a student's grade, include:

- Participation in an authorized University activity.
- Death or major illness in a student's immediate family.
- Illness of a dependent family member.
- Participation in legal proceedings or administrative procedures that require a student's presence.
- Religious holy day.



- Illness that is too severe or contagious for the student to attend class.
- Required participation in military duties.
- Mandatory admission interviews for professional or graduate school which cannot be rescheduled.

Students are responsible for providing satisfactory evidence to faculty members within seven calendar days of their absence and return to class. They must substantiate the reason for the absence. If the absence is excused, faculty members must either provide students with the opportunity to make up the exam or other work missed, or provide a satisfactory alternative to complete the exam or other work missed within 30 calendar days from the date of absence. Students who miss class due to a University-sponsored activity are responsible for identifying their absences to their instructors with as much advance notice as possible.

Classroom Behavior (applies to online or Face-to-Face Classes)

In the classroom, students are expected to listen attentively, participate respectfully, and adhere to established rules. Behavior that interferes with the class lecture may result in disciplinary action, ensuring a productive and respectful learning environment for everyone. Any disputes over academic matters should be addressed calmly and constructively, ideally during designated times such as office hours or after class. If a student does not agree with a decision, they can request a meeting with the instructor to discuss their concerns in more detail. Should further resolution be needed, the student may escalate the matter to the department head or use formal grievance procedures as outlined in the sections below. (please refer to Student Handbook Article 4 (<https://www.tamtu.edu/handbook/article-04.shtml>)).

TAMU Honor Code: Plagiarism and Cheating

As a TAMU student, you are bound by the TAMU Honor Code to conduct yourself ethically in all your activities as a TAMU student and to report violations of the Honor Code. Please read carefully the Student Handbook Article 7 and Article 10 available at Student Handbook (<https://www.tamtu.edu/handbook/index.shtml>).

We are committed to strict enforcement of the Honor Code. Violations of the Honor Code tend to involve claiming work that is not one's own, most commonly plagiarism in written assignments and any form of cheating on exams and other types of assignments.

Plagiarism is the presentation of someone else's work as your own. It occurs when you:

1. Borrow someone else's facts, ideas, or opinions and put them entirely in your own words. You must acknowledge that these thoughts are not your own by immediately citing the source in your paper. Failure to do this is plagiarism.
2. Borrow someone else's words (short phrases, clauses, or sentences), you must enclose the copied words in quotation marks as well as citing the source. Failure to do this is plagiarism.
3. Present someone else's paper or exam (stolen, borrowed, or bought) as your own. You have committed a clearly intentional form of intellectual theft and have put your academic future in jeopardy. This is the worst form of plagiarism.

Here is another explanation from the 2020, seventh edition of the Manual of The American Psychological Association (APA):

"Plagiarism is the act of presenting the words, idea, or images of another as your own; it denies authors or creators of content the credit they are due. Whether deliberate or unintentional, plagiarism violates ethical standards in scholarship" (p. 254). This same principle applies to the illicit use of AI.

Plagiarism: Researchers do not claim the words and ideas of another as their own; they give credit where credit is due. Quotations marks should be used to indicate the exact words of another. Each time you paraphrase another author (i.e., summarize a passage or rearrange the order of a sentence and change some of the words), you need to credit the source in the text. The key element of this principle is that authors do not present the work of another as if it were their own words. This can extend to ideas as well as written words. If authors model a study after one done by someone else, the originating author should be given credit. If the rationale for a study was suggested in the discussion section of someone else's article, the person should be given credit. Given the free exchange of ideas, which is very important for the health of intellectual discourse, authors may not know where an idea for a study originated. If authors do know, however, they should acknowledge the source; this includes personal communications (p. 11). For guidance on proper documentation, consult the Academic Success Center or a recommended guide to documentation and research such as the Manual of the APA or the MLA Handbook for Writers of Research Papers. If you still have doubts concerning proper documentation, seek advice from your instructor prior to submitting a final draft.

TAMU has penalties for plagiarism and cheating.

- **Penalties for Plagiarism:** Should a faculty member discover that a student has committed plagiarism, the student should receive a grade of 'F' in that course and the matter will be referred to the Honor Council for possible disciplinary action. The faculty member, however, may elect to give freshmen and sophomore students a "zero" for the assignment and to allow them to revise the assignment up to a grade of "F" (50%) if they believe that the student plagiarized out of ignorance or carelessness and not out of an attempt to deceive in order to earn an unmerited grade; the instructor must still report the offense to the Honor Council. This option should not be available to juniors, seniors, or graduate students, who cannot reasonably claim ignorance of documentation rules as an excuse. For repeat offenders in undergraduate courses or for an offender in any graduate course, the penalty for plagiarism is likely to include suspension or expulsion from the university.



- **Caution:** Be very careful what you upload to Turnitin or send to your professor for evaluation. Whatever you upload for evaluation will be considered your final, approved draft. If it is plagiarized, you will be held responsible. The excuse that "it was only a draft" will not be accepted.
- **Caution:** Also, do not share your electronic files with others. If you do, you are responsible for the possible consequences. If another student takes your file of a paper and changes the name to his or her name and submits it and you also submit the paper, we will hold both of you responsible for plagiarism. It is impossible for us to know with certainty who wrote the paper and who stole it. And, of course, we cannot know if there was collusion between you and the other student in the matter.
- **Penalties for Cheating:** Should a faculty member discover a student cheating on an exam or quiz or other class project, the student should receive a "zero" for the assignment and not be allowed to make the assignment up. The incident should be reported to the chair of the department and to the Honor Council. If the cheating is extensive, however, or if the assignment constitutes a major grade for the course (e.g., a final exam), or if the student has cheated in the past, the student should receive an "F" in the course, and the matter should be referred to the Honor Council. Additional penalties, including suspension or expulsion from the university may be imposed. Under no circumstances should a student who deserves an "F" in the course be allowed to withdraw from the course with a "W."
- **Caution:** Chat groups that start off as "study groups" can easily devolve into "cheating groups." Be very careful not to join or remain any chat group if it begins to discuss specific information about exams or assignments that are meant to require individual work. If you are a member of such a group and it begins to cheat, you will be held responsible along with all the other members of the group. The TAMIU Honor Code requires that you report any such instances of cheating.
- **Student Right of Appeal:** Faculty will notify students immediately via the student's TAMIU e-mail account that they have submitted plagiarized work. Students have the right to appeal a faculty member's charge of academic dishonesty by notifying the TAMIU Honor Council of their intent to appeal as long as the notification of appeal comes within 10 business days of the faculty member's e-mail message to the student and/or the Office of Student Conduct and Community Engagement. The Student Handbook provides more details.

Use of Work in Two or More Courses

You may not submit work completed in one course for a grade in a second course unless you receive explicit permission to do so by the instructor of the second course. In general, you should get credit for a work product only once.

AI Policies

Your instructor will provide you with their personal policy on the use of AI in the classroom setting and associated coursework.

TAMIU E-Mail and SafeZone

Personal Announcements sent to students through TAMIU E-mail (tamiu.edu or dusty email) are the official means of communicating course and university business with students and faculty –not the U.S. Mail and no other e-mail addresses. Students and faculty must check their TAMIU e-mail accounts regularly, if not daily. Not having seen an important TAMIU e-mail or message from a faculty member, chair, or dean is not accepted as an excuse for failure to take important action.

Students, faculty, and staff are encouraged to download the SafeZone app, which is a free mobile app for all University faculty, staff, and students. SafeZone allows you to: report safety concerns (24/7), get connected with mental health professionals, activate location sharing with authorities, and anonymously report incidents. Go to SafeZone (<https://www.tamiu.edu/adminis/police/safezone/index.shtml>) for more information.

Copyright Restrictions

The Copyright Act of 1976 grants to copyright owners the exclusive right to reproduce their works and distribute copies of their work. Works that receive copyright protection include published works such as a textbook. Copying a textbook without permission from the owner of the copyright may constitute copyright infringement. Civil and criminal penalties may be assessed for copyright infringement. Civil penalties include damages up to \$100,000; criminal penalties include a fine up to \$250,000 and imprisonment. Copyright laws do not allow students and professors to make photocopies of copyrighted materials, but you may copy a limited portion of a work, such as article from a journal or a chapter from a book for your own personal academic use or, in the case of a professor, for personal, limited classroom use. In general, the extent of your copying should not suggest that the purpose or the effect of your copying is to avoid paying for the materials. And, of course, you may not sell these copies for a profit. Thus, students who copy textbooks to avoid buying them or professors who provide photocopies of textbooks to enable students to save money are violating the law.

Students with Disabilities

Texas A&M International University seeks to provide reasonable accommodations for all qualified persons with disabilities. This University will adhere to all applicable federal, state, and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal education opportunity. It is the student's responsibility to register with the Office of Disability Services for Students located in Student Center 124. This office will contact the faculty member to recommend specific, reasonable accommodations. Faculty are prohibited from making accommodations based solely on communications from students. They may make accommodations only when provided documentation by the Office of Disability Services for Students.

For accommodations or assistance with disabilities, contact the Disability Coordinator, Karla Pedraza, at karla.pedraza@tamiu.edu, call 956.326.2763, or visit Student Center 124.

Student Attendance and Leave of Absence (LOA) Policy

As part of our efforts to assist and encourage all students towards graduation, TAMIU provides LOA's for students, including pregnant/parenting students, in accordance with the Attendance Rule (Section 3.07) and the Student LOA Rule (Section 3.08), which includes the "Leave of Absence Request" form. Both rules can be found in the TAMIU Student Handbook (URL: Student Handbook (<https://www.tamiu.edu/handbook/index.shtml>)).

Pregnant and Parenting Students

Under Title IX of the Education Amendments of 1972, harassment based on sex, including harassment because of pregnancy or related conditions, is prohibited. A pregnant/parenting student must be granted an absence for as long as the student's physician deems the absence medically necessary. It is a violation of Title IX to ask for documentation relative to the pregnant/parenting student's status beyond what would be required for other medical conditions. Students who experience or observe alleged or suspected discrimination due to their pregnant/parenting status, should report to the TAMIU Title IX Coordinator (Lorissa M. Cortez, 5201 University Boulevard, KLM 159B, Laredo, TX 78041, TitleIX@tamiu.edu, 956.326.2857) and/or the Office of Civil Rights (Dallas Office, U.S. Department of Education, 1999 Bryan Street, Suite 1620, Dallas, TX 75201-6810, 214.661.9600). You can also report it on TAMIU's anonymous electronic reporting site, *Report It*, at <https://www.tamiu.edu/reportit> (<https://www.tamiu.edu/reportit/index.shtml>).

TAMIU advises a pregnant/parenting student to notify their professor once the student is aware that accommodations for such will be necessary. It is recommended that the student and professor develop a reasonable plan for the student's completion of missed coursework or assignments. The Office of Compliance (Lorissa M. Cortez, lorissam.cortez@tamiu.edu) can assist the student and professor in working out the reasonable accommodation. For other questions or concerns regarding Title IX compliance related to pregnant/parenting students, contact the Title IX Coordinator. In the event that a student needs a leave of absence for a substantial period of time, TAMIU urges the student to consider a Leave of Absence (LOA) as outlined in the TAMIU *Student Handbook*. #As part of our efforts to assist and encourage all students towards graduation, TAMIU provides LOAs for students, including pregnant/parenting students, in accordance with the Attendance Rule and the Student LOA Rule. #Both rules can be found in the TAMIU *Student Handbook*.

For parenting-related rights, accommodations, and resources, contact the Parenting Liaison, Mayra Hernandez, at mghernandez@tamiu.edu, call 956.326.2265, or visit Student Center 226.

For pregnancy-related rights, accommodations, and resources, contact the TIX Coordinator, Lorissa Cortez, at lorissam.cortez@tamiu.edu, call 956.326.2857, or visit Killam Library 159.

Anti-Discrimination/Title IX

TAMIU does not discriminate or permit harassment against any individual on the basis of race, color, sex, religion, national origin, age, disability, genetic information, veteran status, educational programs, or employment. If you would like to file a complaint relative to Title IX or any civil rights violation, please contact the TAMIU Director of Equal Opportunity and Diversity/Title IX Coordinator, Lorissa M. Cortez, 5201 University Boulevard, Killam Library 159B, Laredo, TX 78041, TitleIX@tamiu.edu, 956.326.2857, via the anonymous electronic reporting website, ReportIt (<https://www.tamiu.edu/reportit>) and/or the Office of Civil Rights (Dallas Office), U.S. Department of Education, 1999 Bryan Street, Suite 1620, Dallas, TX 75201-6810, 214.661.9600.

Incompletes

Students who are unable to complete a course should withdraw from the course before the final date for withdrawal and receive a "W." To qualify for an "incomplete" and thus have the opportunity to complete the course at a later date, a student must meet the following criteria:

1. The student must have completed 90% of the course work assigned before the final date for withdrawing from a course with a "W", and the student must be passing the course;
2. The student cannot complete the course because an accident, an illness, or a traumatic personal or family event occurred after the final date for withdrawal from a course;
3. The student must sign an "Incomplete Grade Contract" and secure signatures of approval from the professor and the college dean.
4. The student must agree to complete the missing course work before the end of the next long semester; failure to meet this deadline will cause the "I" to automatically be converted to an "F"; extensions to this deadline may be granted by the dean of the college. This is the general policy regarding the circumstances under which an "incomplete" may be granted, but under exceptional circumstances, a student may receive an incomplete who does not meet all of the criteria above if the faculty member, department chair, and dean recommend it.

WIN Contracts

The Department of Biology and Chemistry does not permit WIN contracts. For other departments within the college, WIN Contracts are offered only under exceptional circumstances and are limited to graduating seniors. Only courses offered by full-time TAMIU faculty or TAMIU instructors are



eligible to be contracted for the WIN requirement. However, a WIN contract for a course taught by an adjunct may be approved, with special permission from the department chair and dean. Students must seek approval before beginning any work for the WIN Contract. No student will contract more than one course per semester. Summer WIN Contracts must continue through both summer sessions.

Student Responsibility for Dropping a Course

It is the responsibility of the student to drop the course before the final date for withdrawal from a course. Faculty members, in fact, may not drop a student from a course without getting the approval of their department chair and dean.

Independent Study Course

Independent Study (IS) courses are offered only under exceptional circumstances. Required courses intended to build academic skills may not be taken as IS (e.g., clinical supervision and internships). No student will take more than one IS course per semester. Moreover, IS courses are limited to seniors and graduate students. Summer IS course must continue through both summer sessions.

Grade Changes & Appeals

Faculty are authorized to change final grades only when they have committed a computational error or an error in recording a grade, and they must receive the approval of their department chairs and the dean to change the grade. As part of that approval, they must attach a detailed explanation of the reason for the mistake. Only in rare cases would another reason be entertained as legitimate for a grade change. A student who is unhappy with his or her grade on an assignment must discuss the situation with the faculty member teaching the course. If students believe that they have been graded unfairly, they have the right to appeal the grade using a grade appeal process in the Student Handbook and in the Faculty Handbook.

Final Examination

All courses in all colleges must include a comprehensive exam or performance and be given on the date and time specified by the Academic Calendar and the Final Exam schedule published by the Registrar's Office. In the College of Arts & Sciences all final exams must contain a written component. The written component should comprise at least 20% of the final exam grade. Exceptions to this policy must receive the approval of the department chair and the dean at the beginning of the semester.

Mental Health and Well-Being

The university aims to provide students with essential knowledge and tools to understand and support mental health. As part of our commitment to your well-being, we offer access to Telus Health, a service available 24/7/365 via chat, phone, or webinar. Scan the QR code to download the app and explore the resources available to you for guidance and support whenever you need it. The Telus app is available to download directly from TELUS (tamiu.edu) (<https://www.tamiu.edu/counseling/telus/>) or from the Apple App Store and Google Play.

Distance Education Courses

Regular and Substantive Interaction (Note to Instructors):

The U.S. Department of Education (ED) has issued Regular and Substantive Interaction: Background, Concerns, and Guiding Principles which went into effect on July 1, 2021. Under the new regulations, the U.S. Department of Education requires that all online courses and programs for which students may use Title IV funds (federal financial aid) include regular and substantive interaction between students and their instructors. This ruling applies to both synchronous and asynchronous courses, with the primary focus being asynchronous courses. The Department of Education has the authority to audit courses and programs at institutions, like Texas A&M International University, with online offerings.

Visit for additional guidance on including Regular and Substantive Interaction: <https://www.tamiu.edu/distance/faculty/regular-and-substantive-interaction.shtml>

Online Courses and On-Campus Meetings

Texas Administrative Code (TAC), Title 19, Part 1, Chapter 2, Subchapter J, Section 2.202 ([https://texreg.sos.state.tx.us/public/readtac\\$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=19&pt=1&ch=2&rl=202](https://texreg.sos.state.tx.us/public/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=19&pt=1&ch=2&rl=202)), defines distance education as the formal educational process that occurs when students and instructors are not in the same physical setting for the majority (more than 50%) of instruction. Distance education includes hybrid and 100% online courses and programs as defined by the Texas Higher Education Coordinating Board (THECB):

- **Hybrid Course** - A distance education course in which more than 50 percent but less than 100 percent of instructional activity takes place when the student(s) and instructor(s) are in separate physical locations.
- **100-Percent Online Course** - A distance education course in which 100 percent of instructional activity takes place when the student(s) and instructor(s) are in separate physical locations. **Requirements for on-campus or in-person orientation, testing, academic support services, internships/fieldwork, or other non-instructional activities do not exclude a course from this category.**

Course Structure

There are 11 Learning Modules in the course and course introduction section. The checklist of course introduction includes:



1. Read About Your Instructor below.
2. Introduce yourself to your peers and to your instructor in the Meet and Greet discussion forum.
3. Read the Course Syllabus and any additional course documentation.
4. Complete the Acknowledgment of Syllabus and Policies.
5. View the Learner Support Services link for:
 6. required technology and technical skills for online courses,
 7. how to acquire essential technology/software and technical training,
 8. proper online etiquette (netiquette),
 9. statements of accessibility and privacy policies of course technologies.
10. links on technical, accessibility, academic and student support services offered at Texas A&M International University, and
11. links to the student handbook, university academic regulations, the academic calendar and schedule of classes.
12. If you have any general questions over the course, post a comment in the Course Q & A to ask at any time.
13. Watch the following videos from the TAMIU eLearning Team from their eLearning Orientation web page (<https://www.tamiau.edu/distance/students/elearning-orientation.shtml>) for a review of:
14. Blackboard Base Navigation (general system navigation)
15. Blackboard Ultra Course View (general course navigation)
16. You are required to use Respondus LockDown Browser for your exams in this course.
17. Contact the eLearning team at elearning@tamiau.edu if you need technical assistance with Blackboard, or register for a virtual or in-person Blackboard orientation on their OIT Trainings Site (<https://trainings.tamiau.edu/>).

For each Learning **Module**, you will find instructional materials, activities, assessments.

Student-Instructor Communication Policy and Response Time

Announcements/Course Messages/Emails

All course-related messages, announcements, and updates will be posted on Blackboard. Please check the course site regularly for new information.

The instructor will schedule three virtual meetings throughout the course, and the schedule will be posted on Blackboard via announcements. Please check the course site for the meeting schedule and details.

For questions or concerns, please use the instructor's email address listed under "Instructor Information" on Blackboard. This will ensure that your message is received and responded within 48 hours.

Assignments and Assessments

Individual Quizzes:

Individual quizzes consist of chapter exercises. Chapter Exercises consist of data analytics problems presented in each chapter. Information on particular assigned problems to solve will be available on Blackboard. The weekly quizzes must be submitted through Blackboard on the scheduled submission date, the Sunday of the week assigned on or before 11.59 pm.

Exams:

There will be a total of three exams in this course. These exams will contain 25 multiple-choice questions. The problems will be similar to the ones that will be provided in the Chapter Exercises. All exams will be timed. Once you start an exam, you must finish it in one sitting. All exams are on Sunday of the assigned week.

Course Communication Guidelines (Netiquette)

There are course expectations concerning etiquette or how we should treat each other online. We must consider these values as we communicate with one another. Visit **Instructional Technology and Distance Education Services' web page on Netiquette** (<http://www.tamiau.edu/distance/students/netiquette.shtml>) for further instruction.

Accommodations/Accessibility Policy

Texas A&M International University seeks to provide reasonable accommodation for all qualified persons with disabilities. This University will adhere to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to register with the Director of Student Counseling and to contact the faculty member in a timely fashion to arrange for suitable accommodation. For more information, contact the online at **Office of Disability Services for Students (DSS)**,



via phone at 956.326.3086 or by visiting the staff at the Student Center, room 118. A link to the Disabilities Services for Students site has also been included under the "Resources" tab inside the course.

Student Support Resources

The University wishes to have all students succeed in their courses. To provide support to our students, an array of services in the areas of technology support, academic support, student support, and accessibility support may be found at the University. For more information, visit the Instructional Technology and Distance Education Services page on **University Resources and Support Services**.

Computer/Technology Requirements

When participating in distance education courses, it is vital to consider the technology involved in order to have a successful course. Online students will need regular access to a personal computer that runs on a broadband Internet connection.

It is recommended that you meet the technical requirements listed on the Instructional Technology and Distance Education Services' webpage when using the learning management system (LMS) of the University.

Additional Hardware. For this class, you will need the following additional hardware: **Computer with webcam.** Recently purchased laptops may have these built-in web cameras. If you do not have this equipment, it is recommended to purchase a stand-alone webcam, microphone, or a webcam with a built-in microphone from your local electronic store or any online store.

NOTE: Instructional Technology and Distance Education Services may check out available webcams to students on a first-come, first-served basis. To check out a webcam, please stop by Killam Library, Room 259, and request an available webcam.

Additional Software. You will need the following additional software: **Python for Term Project.** TAMIU Students may access online versions of this software through their Dusty Office 365 account at <https://dusty.tamiau.edu/>. This site also provides students access to download the Microsoft suite for educational use. **See instructions for downloading the Microsoft Office suite.**

Note: Students, if you do not own the required hardware or software or do not have access to the Internet, it will be highly challenging for you to make any progress in this class. However, my goal is to assist you in finding solutions and guide you appropriately most of the required materials can either be found free of charge at TAMIU's library, classrooms, and available computer labs. **Visit Media Services' web page on the availability of on-campus computer labs.** In addition, you may also purchase any of these items at any electronic store.

Learning Management System (Blackboard)

Students are provided with an orientation (*eLearning (Blackboard) Student Orientation*) and access to guides on how to use the Blackboard LMS. Guides may be available at **Instructional Technology and Distance Education Services' Student eLearning Tutorial Videos page** or by contacting the eLearning team at elearning@tamiau.edu.

Minimum Technical Skills Expected

When participating in distance education courses, it is vital to consider the technology involved in order to have a successful course. Students in distance education should have knowledge of basic computer and Internet skills, as mentioned on the **Instructional Technology and Distance Education Services' webpage**.

Technical Support Services

Because of the nature of distance education courses, the Office of Information Technology (OIT) computing and information services are vital to the success of online students. This webpage covers contact information for Distance Education Services (Blackboard Support), the OIT Help Desk, and E-mail support: **Technical Support Services**.

Web Conferences/Synchronous sessions

The instructor will schedule three virtual meetings throughout the course, and the schedule will be posted on Blackboard via announcements. Please check the course site for the meeting schedule and details.

Grading Scale/Schema (after Grade Breakdown section)

In determining the final course grade, the following scale is used in percentage or point value.

90- 100%	A
80- 90%	B
70- 80%	C
60- 70%	D



below 60 F

The instructions and rubrics for the term project are available on Blackboard and are located in the "Project" folder. Please review the documents carefully to understand the project requirements and expectations. If you have any questions or concerns, please don't hesitate to contact the instructor.

Late Work Policy

You are expected to keep up with module quizzes on a weekly basis. All quizzes are due according to the instructions in each week's module or, if not specified, at the end of Sunday, by midnight. No late submission will be accepted after its due date, unless authorized by the instructor.

Course Evaluation

At the end of this course, students are encouraged to complete a course evaluation that will be distributed to them via email and through a course link.

Turnitin Policy Or Other Types of Assignments in Other Systems

The term project report will be checked by safeAssign and the report will be available to student.

Proctoring

Respondus LockDown Browser. Contact elearning@tamiu.edu for the syllabus statement and other information.

Accessibility and Privacy Statements on Course Technologies

At Texas A&M International University, we believe that all students should have equal technology opportunities in the classroom. These technologies/sites may also require user data, such as the creation of a username and password. You may find the accessibility and privacy policies of the technologies used in this class on the following pages: **Accessibility Statements and Privacy Statements**.

In this class, we will utilize: Blackboard.

Syllabus Subject to Change

While information and assurances are provided in this course syllabus, it should be understood that content may change in keeping with new research and literature and that events beyond the control of the instructor could occur. Students will be informed of any substantive occurrences that will produce syllabus changes.