UNIVERSITY OF TEXAS RIO GRANDE VALLEY

Online Course Syllabus

GENERAL COURSE INFORMATION

COURSE NUMBER: INFS 6350

COURSE TITLE: Business Intelligence & Data Warehousing

PREREQUISITE: None

COURSE START DATE: January 13, 2021

COURSE END DATE: March 03, 2021

REQUIRED READING: Students are required to read all materials available at the Blackboard Learn site for this course on mycourses.utrgv.edu.

Textbook: Larson, B. (2017). *Delivering Business Intelligence with Microsoft SQL Server 2016.* New York, NY: McGraw Hill. ISBN: 9781259641480.

Software: Most of the computer-based assignments will be done via a remote sever on which the instructor has requested individual accounts for the class. You do not need to install your own SQL Server software. Yet you need to have Microsoft Office installed on your own computer (available in "vSoftware" under my.utrgv.edu).

Facilitator Information

Name: Jun Sun, PhD
Title: Professor of Information Systems
College of Business and Entrepreneurship, University of Texas Rio Grande Valley
Time Zone: U.S. Central
Email Address: jun.sun@utrgv.edu

Facilitator Availability

I am available from 9AM-9PM Central Time on most days, but attempt to reserve sometime during weekends for my family. During the week I am online most of the time during that timeframe. On Saturdays I tend to be online in the morning only, and on Sundays I tend to be online in the evening only. If these times are not convenient for you, please let me know and I will be happy to accommodate your schedule if at all possible. I provide you with these times to make it easier to communicate with me, not to limit our contact and want you to know that, should you need to contact me outside these time frames, you should not hesitate to do so.

Facilitator Bio

I am posting my online biography in a separate note in the course discussion forum to give you more information about me. I look forward to reading your biographies and getting to know you.

Words of Welcome

Greetings from the facilitator of this course. I jointed the former UTPA in 2006 and am now a full professor of information systems at UTRGV. I had 4 years of industry experience before getting my master's and doctoral degrees at the Texas A&M University. Yes, I am aggie but not a huge football fan (I like tennis and swimming though). I am looking forward to working with you to explore the exciting field of health informatics. I know it is challenging but you are not alone: everyone here is on the same board to help and learn from each other.

Course Objectives

COURSE DESCRIPTION:

This course focuses on the characteristics, uses, and design strategies for IT-enabled managerial decision support. Data-oriented methods for business intelligence and organizational decision making are emphasized. Technology context includes an overview of business intelligence framework, business process management and application-based business analytic and reporting. Specific techniques include business reporting using pivot tables, extraction, cleaning and querying of business data. Application areas include healthcare, retailing and manufacturing etc.

Program Objectives	Course Learning Objectives	Map to MBA Learning Goals	Assessment Methods
1. An Appreciation for the Role of Business in a Free Enterprise System	Students will apply business intelligence techniques on big data to obtain useful insights for decision support in organizations.	1. Leadership 2. Oral & Written Communication	Successful completion of weekly group projects with rotating leadership; Compilation of project reports; Group presentation of final report and peer evaluation.
2. Critical Thinking and Problem-Solving	Students will demonstrate effective analytic and modeling skills to solve business problems.	3. Critical Analysis and Decision-Making	Successful completion of individual assignments; Participation in class discussions on weekly topics.

Week 1: Business Intelligence and Decision Support

In this module, you are going to get familiar with the basic concepts of business intelligence and explore how it can be used to support business decision making.

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

- convert raw data into useful information to support business decisions with at least 80% accuracy according to assignment rubric in individual assignments.
- appraise the roles of business intelligence (BI) in business decision making with at least 15 points out of 20 possible total points according to discussion rubric in unit forum discussion.
- devise business scenarios in which business intelligence (BI) can be applied with at least 15 points out of 20 possible total points according to project rubric in unit group project.

Week 2: Data Summarization

In this module, you are going to summarize data and obtain useful information to address business issues.

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

- apply pivot table and pivot chart to summarize raw data for business decision support with at least 80% accuracy according to assignment rubric in individual assignments.
- appraise data summarization methods for business decision support in the real world with at least 15 points out of 20 possible total points according to discussion rubric in unit forum discussion.
- design pivot table and pivot chart to support decision-making for certain business scenarios with at least 15 points out of 20 possible total points according to project rubric in unit group project.

Week 3: Data Storage and Retrieval

In this module, you are going to use databases to store and retrieve business data to automate daily operations.

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

- utilize relational database to handle business data with at least 80% accuracy according to assignment rubric in individual assignments.
- appraise the use of relational database in daily business operations with at least 15 points out of 20 possible total points according to discussion rubric in unit forum discussion.
- design database structures to capture certain business transactions with at least 15 points out of 20 possible total points according to project rubric in unit group project.

Week 4: Data Warehousing

In this module, you are going to use data warehousing to capture and process business information for decision support.

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

- utilize data warehousing to organize business data with at least 80% accuracy according to assignment rubric in individual assignments.
- appraise the use of data warehousing for the facilitation of business decision support with at least 15 points out of 20 possible total points according to discussion rubric in unit forum discussion.
- design data warehouse structures to organize business data with at least 15 points out of 20 possible total points according to project rubric in unit group project.

Week 5: Information Organization

In this module, you are going to develop and utilize online analytic processing (OLAP) cubes to get structured information from data warehouse/mart.

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

- apply online analytic processing (OLAP) cubes to present meaningful business information with at least 80% accuracy according to assignment rubric in individual assignments.
- appraise OLAP cubism for business decision support with at least 15 points out of 20 possible total points according to discussion rubric in unit forum discussion.
- design OLAP cubes to present business information with at least 15 points out of 20 possible total points according to project rubric in unit group project.

Week 6: Data Mining

In this module, you are going to obtain value-added insights using data mining on data warehouse/mart.

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

- apply data mining to extract useful business information from large amount of data with at least 80% accuracy according to assignment rubric in individual assignments.
- appraise the use of data mining for business decision support with at least 15 points out of 20 possible total points according to discussion rubric in unit forum discussion.

- design data mining methods to obtain business insights with at least 15 points out of 20 possible total points according to project rubric in unit group project.

Week 7: Intelligence System Integration

In this module, you are going to develop and present the conceptual design of an integrated business intelligence system in a team as well as evaluate the designs that other teams present.

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

- integrate the database, data warehouse, OLAP, data mining and presentation modules into the conceptual design of business intelligence system with at least 15 points out of 20 possible total points according to project rubric in group project presentation and final project report.
- evaluate the design of the integrated business intelligence system with at least 15 points out of 20 possible total points according to discussion rubric in presentation evaluation forum discussion.

The Online Weekly Schedule

Electronic weeks begin on Wednesday and end on Tuesday.

Day 1 - Wednesday
Day 2 - Thursday
Day 3 - Friday
Day 4 - Saturday
Day 5 - Sunday
Day 6 – Monday
Day 7 - Tuesday

Where to Go to Class: Your Online Course Areas

Main Forum: This is the discussion forum for the whole course where we share questions, answers and feedbacks related to the course. It has read-and-write access for everyone.

Unit Forum: This is discussion forum for each week where we will discuss the topics assigned. It has read-and-write access for everyone.

Chat Room: Please use this channel to communicate with your classmates or the facilitator on a one-to-one synchronous manner. Just select the one that you want to chat with from the list showing who are currently logged in, and start the chat by typing in a message.

Course Materials: This is a read-only board, which means you can read messages here but cannot send any. This is where I will post the course syllabus and materials.

Groups: You will be assigned to one of the groups to work on the group project in each week.

TECHNICAL REQUIREMENTS

Computer Hardware

To participate in this online course, you should have easy access to a computer less than 5-years old with high-speed internet connection via cable modem, LAN or DSL. To ensure you are using a supported browser and have required plug-ins please refer to [Supported Browsers, Plugins & Operating Systems for Blackboard Learn](#) from Blackboards resource page.

Student Technical Skills

You are expected to be proficient with installing and using basic computer applications and have the ability to send and receive email attachments.

Software

- Google's [Chrome](#) (latest version)
- Mozilla's [Firefox](#) (latest version; Macintosh or Windows)
- Adobe's [Flash Player & Reader](#) plug-in (latest version).
- Virus protection
- Microsoft Office

Technical Assistance

If you need technical assistance at any time during the course or to report a problem with Blackboard you can:

- Visit the Blackboard [Student Help Site](#)
- Center for Online Learning and Teaching Technology (COLTT)
  - Brownsville: 956-882-6792 - Rusteberg 108
  - Edinburg: 956-665-5327 - Education Complex (EDCC) 2.202
  - Toll Free: 1-866-654-4555
  - Hours: M-F 7:30 AM-6:00 PM
  - Email: coltthelp@utrgv.edu
  - Submit a [Helpdesk Ticket](#)

COURSE ORGANIZATION & ONLINE TOOLS

Course Structure

This course will be delivered entirely online through the course management system Blackboard Learn. You will use your UTRGV account to login to the course from the [My UTRGV](#) site and under applications click on Blackboard Learn.

Learning Modules

The course is organized into modules of instruction by week, as outlined in the Course Schedule and Due Dates below. Each week is listed by its main topic and contains required readings, mini lectures, quizzes, discussion forum assignments, hand-on exercises, and collaborative assignments that you complete working in teams.

Note: Most materials used in conjunction with the course are subject to copyright protection.

Discussion Forums

You will find the following discussion forums in the course Blackboard site:

- General Help: Post any questions or comments you may have about course mechanics or technical issues to this forum.
- Forums related to collaborative and discussion assignments, as described in Learning Module sections

Forums versus Email

If you have a question about course content or mechanics, I encourage you to post it to the General Help discussion forums. Doing so gives students in the course an opportunity to help one another and allows everyone to benefit from answers to your questions. Of course, don't hesitate to email me directly if your concern is of a personal nature.

My role in discussion forums is that of a facilitator. I will occasionally correct misconceptions and/or redirect conversations that need redirecting. I may also post comments following the completion of discussion indicating my general impressions of the comments and conclusions.

Assignments

Unless indicated otherwise in Weekly materials, you will submit an assignment (e.g. quiz, discussion, exercise, report etc.) to its respective assignments area. The due dates in Assignments match the due dates in the schedule below.

Collaborate

In addition to the learning activities noted above, I will also hold Live sessions using Collaborate during the semester at dates and times to be announced. For more information about Collaborate, visit Blackboards website [Collaborate Handouts For Participants](#)

TOPIC OUTLINE/SCHEDULE

Important Note: Activity and assignment details will be explained in detail within each week's corresponding weekly content area. If you have any questions, please contact the instructor.

Module	Objectives	Assignments/Activities
Week 1 1/13 – 1/19 Module 1 Business Intelligence and Decision Support Reference: Chapter 1	1.1 Convert raw data into useful information to support business decisions with at least 80% accuracy according to assignment rubric in individual assignments (including Example, Activity and Assessment). 1.2 Appraise the roles of business intelligence (BI) in business decision making with at least 15 points out of 20 possible total points according to discussion rubric in unit forum discussion. 1.3 Devise business scenarios in which business intelligence (BI) can be applied with at least 15 points out of 20 possible total points according to project rubric in unit group project.	Review unit objectives Concepts: Business Intelligence for Decision Support Example: Sample Excel Applications Activity: Develop functions to extract information from a spreadsheet Assessment: Extract information from a spreadsheet to answer business questions Unit Forum Discussion: *In which business scenarios can business intelligence be used for decision support?* Group Project: Develop the conceptualization of a business intelligence system (i.e. what business questions it may answer).
Week 2 1/20 – 1/26 Module 2 Data Summarization Reference: Chapter 2 Chapter 18	2.1 Apply pivot table and pivot chart to summarize raw data for business decision support with at least 80% accuracy according to assignment rubric in individual assignments (including Example, Activity and Assessment). 2.2 Appraise data summarization methods for business decision support in the real world with at least 15 points out of 20 possible total points according to discussion rubric in unit forum discussion. 2.3 Design pivot table and pivot chart to support decision-making for certain business scenarios with at least 15 points out of 20 possible total points according to project rubric in unit group project.	Review unit objectives Concepts: Data Summarization Example: Sample pivot charts Activity: Develop pivot table and pivot chart to summarize data from a spreadsheet Assessment: Extract information from a spreadsheet to answer business questions Unit Forum Discussion: *What are the advantages and disadvantages of using spreadsheet data to obtain useful business insights?* Group Project: Set up the layout of pivot table and pivot chart that the proposed system will produce to answer business questions.
Week 3 1/27 – 2/2	3.1 Utilize relational database to handle business data with at least 80% accuracy	Review unit objectives Concepts: Relational Database

Module 3 Data Storage and Retrieval Reference: Chapter 3 Chapter 5	according to assignment rubric in individual assignments (including Example, Activity and Assessment). 3.2 Appraise the use of relational database in daily business operations with at least 15 points out of 20 possible total points according to discussion rubric in unit forum discussion. 3.3 Design database structures to capture certain business transactions with at least 15 points out of 20 possible total points according to project rubric in unit group project.	Management System Example: Sample database and queries Activity: Following a tutorial, develop a database to store data and retrieve information Assessment: Use queries to extract information from a database to address business issues Unit Forum Discussion: *What are the uses and limitations of traditional databases for business decision support*? Group Project: Develop a transactional database that provides raw data to the proposed system.
Week 4 2/3 – 2/9 Module 4 Data Warehousing Reference: Chapter 3 Chapter 6 Chapter 7	4.1 Utilize data warehousing to organize business data with at least 80% accuracy according to assignment rubric in individual assignments (including Example, Activity and Assessment). 4.2 Appraise the use of data warehousing for the facilitation of business decision support with at least 15 points out of 20 possible total points according to discussion rubric in unit forum discussion. 4.3 Design data warehouse structures to organize business data with at least 15 points out of 20 possible total points according to project rubric in unit group project.	Review unit objectives Concepts: Database and Data Warehouse Example: Sample data warehouse Activity: Following a tutorial, build a prototype data warehouse to organize the data and retrieve information. Assessment: Input data to and retrieve information from data warehouse to solve business intelligence problems Unit Forum Discussion: *What are the differences between database and data warehouse in terms of their designs, functions and applications*? Group Project: Develop a data warehouse for the proposed system.
Week 5 2/10 – 2/16 Module 5 Information Organization Reference: Chapter 4 Chapter 9 Chapter 10	5.1 Apply online analytic processing (OLAP) cubes to present meaningful business information with at least 80% accuracy according to assignment rubric in individual assignments (including Example, Activity and Assessment). 5.2 Appraise OLAP cubism for business decision support with at least 15 points out of 20 possible total points according to discussion rubric in unit forum discussion.	Review unit objectives Concepts: OLAP Cube and Applications Example: Sample OLAP cubes Activity: Following a tutorial, build OLAP cubes based on a sample data warehouse Assessment: Make business decisions based on OLAP cubes Unit Forum Discussion: *How to apply OLAP cubes for business*

	5.3 Design OLAP cubes to present business information with at least 15 points out of 20 possible total points according to project rubric in unit group project.	*decision support in different organizations*? Group Project: Build OLAP cubes for organizing information extracted from data warehouse in a pivot table format.
Week 6 2/17 – 2/23 Module 6 Data Mining Reference: Chapter 15 Chapter 16	6.1 Apply data mining to extract useful business information from large amount of data with at least 80% accuracy according to assignment rubric in individual assignments (including Example, Activity and Assessment). 6.2 Appraise the use of data mining for business decision support with at least 15 points out of 20 possible total points according to discussion rubric in unit forum discussion. 6.3 Design data mining methods to obtain business insights with at least 15 points out of 20 possible total points according to project rubric in unit group project.	Review unit objectives Concepts: Data Mining Concepts and Techniques Example: Sample data mining solutions Activity: Following a tutorial, conduct data mining analyses Assessment: Answer business questions based on data mining output Unit Forum Discussion: *How to apply different data mining techniques for different business problems*? Group Project: Conduct data mining analyses on the information organized in OLAP cubes.
Week 7 2/24 – 3/3 Module 7 Intelligence System Integration	7.1 Integrate the database, data warehouse, OLAP, data mining and presentation modules into the conceptual design of business intelligence system with at least 15 points out of 20 possible total points according to project rubric in group project presentation and final project report. 7.2 Evaluate the design of the integrated business intelligence system with at least 15 points out of 20 possible total points according to discussion rubric in presentation evaluation forum discussion.	Project Presentation: Present the conceptual design of an integrated business intelligence system Presentation Evaluation: Provide feedback on the designs that other groups present Final Project Report: Submit a final group report on the design of the integrated business intelligence system

GRADING Policy

Graded Course Activities

Week	Deliverable	Points
1-6	Individual Assignments (including Example, Activity, Assessment)	20 × 6
	Class Discussion	20 × 6
	Group Project	20 × 6
7	Group Project Presentation	20
	Class Presentation Discussion	20
	Group Project Report	20
Total		**420**

The grading of class discussions and group projects is based on the attached discussion rubric and project rubric, respectively. Other problem-solving assignments are graded by their correctness and accuracy against standard answers.

Final grades assigned for this course will be based on the total points earned and are assigned as follows:

A = 380 or above
B = 340-379
C = 300-339
F = Below 300

Incomplete Grades

Incomplete grades will not be awarded.

Late Assignments

Be sure to pay close attention to deadlines—there will be no make-up assignments or quizzes, or late work accepted without a serious and compelling reason and instructor approval.

Viewing Grades in Blackboard

Points you receive for graded activities will be posted to the Blackboard Grade Book. Click on the My Grades link on the left navigation to view your points.

Your instructor will update the online grades and provide necessary feedback each time a grading session has been complete—typically 3 days following the completion of an activity. You will see a visual indication of new grades posted on your Blackboard home page under the link to this course.

COURSE POLICIES

Questions and Answers

Please post all course-related questions on the **Weekly Q&A** forums. To make it easy for others to find out whether a similar question has been previously raised and addressed, please use a brief but meaningful thread title. If a new question is not answered by the instructor and other classmates within 24 hours, you may remind the instructor by email.

Participation

Online courses require your active participation. Here are some tips for success:

- In discussion forums, you learn from one another by posing questions, justifying your comments, and providing multiple perspectives. When you prepare for discussions through thoughtful reflection, you contribute to your own successful learning experience as well as to the experience of your peers.
- Log in to the course frequently (at least several times per week for long semesters and daily for summer sessions) and check the announcements. This will keep you apprised of any course updates, progress in discussions, assignment information, and messages requiring immediate attention.
- Be aware of and keep up with the Course Schedule in the Syllabus.
- Participate in team activities to the best of your ability. How well your team does, and how well you do, depend on all the team members working cooperatively.

Build Rapport

If you find that you have any trouble keeping up with assignments or other aspects of the course, make sure you let your instructor know as early as possible. As you will find, building rapport and effective relationships are key to becoming an effective professional. Make sure that you are proactive in informing your instructor when difficulties arise during the semester so that we can help you find a solution.

Complete Assignments

All assignments for this course will be submitted electronically through Blackboard unless otherwise instructed. Assignments and discussions must be submitted by the given deadline or special permission must be requested from instructor *before the due date*. Extensions will not be given beyond the next assignment except under extreme circumstances.

Naming and Submitting Documents

Before you submit a document, name your file according to the format below. Avoid special characters and spaces in file names. Use a single underline _ to separate words.

The name of your…	…should follow the format:	Example:
Report	LastNameFirstInitial_Report.doc	SmithJ_Report.doc

Communication Skills

All students must have adequate writing skills to communicate content in a professional and concise manner. Students must be proficient in their written presentations including strategies for developing ideas, citing scholarly references, writing style, wording, phrasing, and using language conventions. Students must follow APA guidelines, use non-racist and non-sexist language, and include sufficient references to support their thesis and ideas in the paper.

Accessibility of SQL Server

Most of the course assignments and group projects on data modeling and business intelligence require the use of Microsoft's SQL Server. This course provides students the access to SQL Server on a virtual desktop. The instructions for accessing the virtual desktop through PC and Mac machines are provided under Welcome/Start Here page in the course's BlackBoard site.

Privacy Policy for SQL Server Virtual desktop Accounts

Each student will be given a user account to access the SQL Server virtual desktop. Each group will also be given a separate user account, and group members can use it to access their group space one at a time. Please do not share individual and group account information with others. In the first few weeks, the instructor will email the user account information to you. The best way to safeguard the account information is to view them from your email account rather than copying it to paper or other electronic media.

Time Commitment

Online courses are typically just as time intensive, and may be more rigorous than traditional courses. Many students claim that online courses require more time and commitment. As you begin this course, you would be wise to schedule 8 or more hours per week for studying materials and completing assignments.

Falling behind in this course is particularly problematic because the concepts we cover are cumulative. This means that not becoming proficient with information and objectives presented and assessed in a particular week can lead to low scores for that week as well as in subsequent weeks.

Understand When You May Drop This Course

It is the student's responsibility to understand when they need to consider de-enrolling from a course. Refer to the UTRGV Course Schedule for dates and deadlines for registration. After this period, a serious and compelling reason is required to drop from the course. Serious and compelling reasons includes: (1) documented and significant change in work hours, leaving student unable to attend class, or (2) documented and severe physical/mental illness/injury to the student or student's family.

Inform Your Instructor of Any Accommodations Needed

If you have a documented disability and verification from the Disability Services, and wish to discuss academic accommodations, please contact your instructor as soon as possible. It is the student's responsibility to provide documentation of disability to Disability Services and meet with a SSWD counselor to request special accommodation *before* classes start.

Disability Services is located in room 322 University Center and can be contacted by phone at (956) 316-7911 (Voice) (956) 316-7911 or via email at disabilityservices@utrgv.edu.

Commit to Integrity

As a student in this course (and at this university) you are expected to maintain high degrees of professionalism, commitment to active learning and participation in this class and also integrity in your behavior in and out of the classroom.

UTRGV Academic Honesty Policy & Procedures

"The principles of truth and honesty are recognized as fundamental to a community of scholars and teachers. The University of Texas Rio Grande Valley expects that both faculty and students will honor these principles, and in so doing, will protect the integrity of academic work and student grades."

Read more about UTRGV's Academic Honesty Policy & Procedures

Definitions

At UTRGV, Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in

whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts.

Plagiarism is a form of cheating. At UTRGV, "plagiarism is the appropriation, buying, receiving as a gift, or obtaining by any means another's work and the unacknowledged submission or incorporation of it in one's own academic work offered for credit" (HOP).

Important Note: Any form of academic dishonesty, including cheating and plagiarism, may be reported to the office of student affairs.
Course policies are subject to change. It is the student's responsibility to check Blackboard for corrections or updates to the syllabus. Any changes will be posted in Blackboard.

Expectations for Discussion Question Responses

The main response to each discussion question should be at least 200 words, and the two comments on others should be at least 50 words each. For discussion question responses in the **Unit** forum, please post responses to the threads provided. To respond, highlight the appropriate thread, click on **Reply**, type your response, and send. Please do not start a new thread for the weekly discussion questions.

I expect your discussion question responses to reflect critical thought. Whenever possible, please try to relate the course content to real-world applications from your work experience. Unlike your formal written assignments, I do not require that your discussion question responses adhere to specific formats. However, please make sure to proofread carefully. Grammar and spelling errors may impact the grading.

Final Week Requirements

Group project report, presentation and evaluation will be required during the final week of the course. No late submissions will be accepted after the last day of class.

Attachments

Please do not send assignments via email as attachments.

Learning Groups

UTRGV online students are expected to work effectively in diverse groups and teams to achieve tasks. They must collaborate and function well in team settings as both leaders and followers. They should respect human diversity and behave in a tolerant manner toward colleagues and peers.

Several of the assignments in this class will be completed in Learning Groups of three to four students randomly assigned. If you experience difficulties working with your

group, you are expected to resolve them within the group if possible. However, please feel free to contact me for guidance if you have concerns in this area.

Because Learning Group projects are outcome-based, all members of your Learning Group will generally earn the same grade for Learning Group projects. However, I reserve the right to report different grades for different Learning Group members if I see a substantial imbalance in individual contribution.

Learning Groups should provide a brief summary of any communication held outside the forum. Therefore, if you hold conference calls, work in a real-time chat room, or get together outside the Blackboard Learn environment in another way, please post a log, transcript, or summary in the **Learning Group** forum. Further, do not use any of these supplementary communication tools unless everyone on your Learning Group agrees to the method and to the schedule. If you have any questions, please contact me.

Discussion Board Guidelines

Grading for Discussions

Topic discussion posts will be graded during the week following the date that the discussions are due. 20 total points are possible for each discussion topic. In determining your grade, the following components are considered (see the *Grading Rubric for Discussions* in the section that follows for a complete breakdown):

Length of post (quantity)

- You are required to post one original message for each topic (i.e. "replies" to other students do not count in this regard).
- In addition to your one, original post, you must reply to at least two other classmates for each topic.
- Original posts should consist of at least 500 characters or more (not including spaces; roughly 100 words).
- Replies to other students should consist of at least 300 characters or more (not including spaces; roughly 60 words).

Quality of posts

- Each of your posts (original posts & replies) must demonstrate your understanding of the topic.
- Connections between lecture content, textbook content, and discussion should be exhibited.
- Relate new information with material previously covered in the class as well as with personal experience.
- Discuss at a critical level – don't just recite facts from your reading, discussion, or lecture.
- Critical discussion includes your opinion of items mentioned, but also includes the reasons you hold that opinion, and why it may be inconsistent or consistent with what you've learned. Justify your reasoning with facts. How does what you're presenting affect present and future situations?
- Posts that are replicates of other student's posts will result in a lower grade.

Timeliness

- In posting your original response to the topic, post at least 3 days before the due date for the

topic, to give your classmates time to respond.
- Discussion messages for a topic that are posted after the specified due date will not be graded.
- You will be given one week to respond to each topic.

Instructor Role

As the instructor, I will serve as a "guide" in terms of the Discussion Board. While I will not respond to every post, I will read what is posted, and reply when necessary. Expect instructor posts in the following situations:

- To assist each of you when it comes to making connections between discussion, lectures, and textbook material.
- To fill in important things that may have been missed.
- To re-direct discussion when it gets "out of hand".
- To point out key points or to identify important posts.

Discussion Board Etiquette

How you post a message to a topic is just as important as what you post. If your behavior does not follow the course etiquette standards stated below, the grade you receive for a posting may suffer.

- The instructor reserves the right to remove any discussion messages that display inappropriate language or content. Do not use offensive language.
- Rudeness or slamming will not be tolerated.
- Show respect for your fellow students, even if you disagree with something that was stated.
- Clearly state what you believe, even if it means that you're disagreeing with someone. Never, however, respond in anger – take care to discuss ideas, not the person.

Grading Rubric for Discussions

In grading discussion topics, the following rubric will be used. 20 total points are possible for each discussion topic.

Criteria	*Not Met*	*Needs Improvement*	*Competent*	*Proficient*
Critical Thinking	**(0 points)** • No evidence of critical thinking whatsoever (or nothing posted).	**(1 point)** • Superficial posts • No valid connections made between content. • No analysis or insight. • *Critical* presentation of opinion not present.	**(3 points)** • Some connections made, although all might not be valid. • Analysis of content is evident, although possibly not complete. • *Critical* presentation of opinion is not complete.	**(4 points)** • Valid connections made. • Posts are complete with analysis and insight. • Opinions are presented at a *critical* level.

	(0 points)	(1 point)	(3 points)	(4 points)
Uniqueness	• Originality of post is completely unacceptable (or nothing posted).	• Originality of posts is not evident (ideas are not your own). • Posts consist of little more than "I agree with you …" statements. • Plagiarism may be evident. • Sources not cited.	• Originality of posts might be questionable, but valid. • Some new ideas. • Plagiarism not evident. • Sources are cited.	• Original ideas are presented. • Plagiarism not evident. • Sources are cited.
Timeliness	• Post is made after the deadline (or nothing posted).	• Original posts are added at the last minute, leaving no time for classmates to respond.	• Original posts are present, but may have been posted during the last half of the discussion period. • Participation is infrequent during the discussion period.	• Original posts are added during the first half of the discussion period. • Participation is evident throughout the entire discussion period.
Quantity	• Quantity is completely unacceptable (or nothing posted).	• Length of all required posts do not meet requirements. • One or more required postings are missing.	• Length of all required posts meets the requirements but includes considerable "fluff" or "filler." • All required postings are made.	• Length of all required posts meet requirements. • All required postings are made.
Stylistics	• Content is illegible (or nothing posted).	• Many spelling or grammar errors • Content is difficult to understand. • Inappropriate language used.	• Few spelling or grammar mistakes • Content is generally easy to understand.	• No spelling or grammar mistakes. • Content easy to understand.

Total Possible Points: 20

Assignment Rubric

Criteria	*Need Improvement*	*Good*	*Very Good*	*Excellent*
Completeness Weight: 20%	0% Response does not directly answer the assignment question(s).	50% Response answers some part of the assignment question(s).	75% Response answers most part of the assignment question(s).	100% Response directly answers each part of the assignment question(s).
Knowledge Weight: 30%	0% Response show little grasp of subject knowledge.	50% Response shows some grasp of subject knowledge.	75% Response shows most grasp of subject knowledge.	100% Response shows full grasp of subject knowledge.
Analysis Weight: 30%	0% Response provides little analysis to the larger concepts of the lesson.	50% Response provides some analysis to the larger concepts of the lesson.	75% Response provides most analysis to the larger concepts of the lesson.	100% Response provides full analysis to the larger concepts of the lesson.
Writing Skills Weight: 20%	0% Response has many grammatical and spelling errors.	50% Response has some grammatical and spelling errors.	75% Response has few grammatical and spelling errors.	100% Response is clear of grammatical and spelling errors.

Project Rubric

This is the rubric to evaluate your group project deliverables, including unit and final project reports, final project presentation, as well as group discussion forum posts.

Criteria	*Needs Improvement*	*Competent*	*Proficient*
Knowledge	(2 points) • Project deliverables demonstrates a partial understanding of some of the concepts and processes embodied in course modules. • Contain some of the appropriate attributes but lacks convincing evidence of full comprehension of the essential ideas addressed.	(3 points) • Project deliverables demonstrates a reasonable understanding of the essential concepts and processes embodied in course modules. • Contain most of the appropriate attributes, including sound approach and evidence of competence with applicable processes.	(4 points) • Project deliverables demonstrates a full and complete understanding of all concepts and processes embodied in course modules. • Has addressed the task in a sound manner.
Application	(2 points) • Project deliverables demonstrates a limited ability to contemplate the situation and determine what the solution should be. • Is able to identify a few steps required that connects knowledge and skills acquired to project context.	(3 points) • Project deliverables demonstrates the ability to contemplate the situation carefully and determine what the solution should be. • Shows the ability to identify steps required to connect knowledge and skills acquired to project context. • Is able to apply other resources to solution and see any problems or challenges.	(4 points) • Project deliverables demonstrates the ability to contemplate the situation carefully and determine what the solution should be. • Shows the ability to identify steps required to connect knowledge and skills acquired to project context. • Is able to apply other resources to solution and see any problems or challenges in a wider context.
Collaboration	(2 points) • Project deliverables demonstrates a reasonable attempt to share ideas and strives to participate. • Does not facilitate group work, but does	(3 points) • Project deliverables demonstrates a clear effort to share ideas and a strong effort to contribute. • Makes a clear effort to find and share	(4 points) • Project deliverables demonstrates a clear effort to lead and an outstanding ability to share ideas. • Listens well, assists others in their efforts,

	not hinder it either.	answers to problems. • Listens well and assists others in their efforts.	and facilitates group work.
Problem Solving	(2 points) • Project deliverables demonstrates a limited ability to select and implement relevant concepts and procedures needed to solve problem. • There is evidence of difficulty in ability to consider constraints of the problem situation. • Solution and relevant work is not correct.	(3 points) • Project deliverables demonstrates the ability to select and implement most relevant concepts and procedures needed to solve problem. • Considers most constraints of the problem situation. Solution and relevant work is generally correct.	(4 points) • Project deliverables demonstrates the ability to select and implement all relevant concepts and procedures needed to solve problem. • Considers all constraints of the problem situation. Implements creative problem solving to identify new solutions. • Solution and relevant work is correct. Goes beyond solving problem to adapting the solution to changing environment.
Communication	(2 points) • Project deliverables demonstrates the ability to establish purpose in limited and inconsistent way. • Inconsistent awareness of the audience. Presents ideas and evidence that is vague and marginally appropriate for the audience.	(3 points) • Project deliverables demonstrates the ability to establish and maintain a purpose. • Provides ideas and evidence that are reasonable well elaborated, relevant, and appropriate for the audience. • Presents and interprets appropriate material with due regard for accuracy and context.	(4 points) • Project deliverables demonstrates the ability to develop and sustain an insightful purpose, demonstrating a sophisticated awareness of audience. • Ideas and evidence are challenging and insightful. Presents and interprets complex material with attention to accuracy and context.

Total Possible Points: 20