DA 704 – Applied Business Intelligence

Department of	Management, Entrepreneurship, and Technology
College of	Lee Business School
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Course Location:	
Class Meeting Days & Times:	
Course Abbreviation/ Number/ Section	DA 704 Applied Business Intelligence
Required Text:	• **Business Intelligence and Analytics: Systems for Decision Support, 10/e** * **Sharda, Delen & Turban** ©2015	Prentice Hall	Cloth; 688 pp	Available ISBN-10: 0133050904	ISBN-13: 9780133050905 *Referred to as SDT henceforth • **Data Mining for the Masses by Mathew North (**NOTE: You <u>do not</u> have to buy this book. It is freely available for download at the following link. We will mainly use this for our hands on work. http://globaltext.terry.uga.edu/booklist?cat=Computing) • **Other material may be assigned as required**
Access to Learning Resources:	• UNLV Library: phone: (702) 895-2286; web: http://library.nevada.edu/ • University Bookstore: phone: (702)736-3955; web: http://unlv.bncollege.com/webapp/wcs/stores/servlet/BNCBHomePage?storeId=19074&catalogId=10001 • Teradata Student Network: http://www.teradatauniversitynetwork.com/ Password for Registration: Analytics

Course Overview:
Skills, technologies, applications, and practices to leverage the organizations' internal and external information assets for making intelligent business decisions in data-rich organizations. This course illuminates the relevance of information technology (IT) in organizational problem solving and/or decision making. Topics include decision making, decision support systems, text/data mining, data warehousing, and business performance management.

Learning Outcomes of this course
At the end of this course, the student will:

1	Understand the criticality of human decision making and business intelligence to today's business organizations
2	Understand basic concepts/technologies/techniques underlying business intelligence and human/organizational decision making
3	Apply/Implement business intelligence concepts using one or more tool(s).

Course Evaluation Methods
This course will utilize the following instruments to determine student grades and proficiency of the learning outcomes for the course.

Item	Value (points)	Individual/Group
2 Exams at 100 points each	200	Individual
4 Quizzes at 25 points each	100	Individual
5 Class Assignments at 20 points each	100 points	Individual
Group Term Project	100 points	Group
Total:	**500 points**	

Grade Determination:

A (≥ 93%)	A- (90-92.99%)	B+ (87-89.99%)	B (83-86.99%)
B- (80-82.99%)	C+ (76-79.99%)	C (72-75.99%)	C- (70-71.99%)
D+ (66-68.99%)	D (62-65.99%)	D- (60-61.99%)	F (< 60%)

Note: Final decimal percentages will be rounded off to the <u>nearest</u> integer before calculating the letter grades. For example, if the final course percentage is 92.8, it will be rounded off to 93% and the student will receive an A. Again, if the final course percentage is 92.2, it will be rounded off to 92% and the student will receive an A-.

Course Procedures

Web Campus

The course shall use webcampus portal. This portal will have the resources related to the course, e.g. powerpoints, reading materials, posted syllabus, assignments etc.

You will be required to log in into this portal to access your course

Class Attendance and Assignments

- Class attendance is important and will be a critical factor for doing well in this course.
- There shall be class assignments (see course calendar) that will be assigned, completed, and submitted during regular class hours and/or on the same day as classes.
- All class assignments are individual
- If you miss a class assignment, you will need to provide a **valid and documented** excuse to make up, similar to the exam policy noted below.
- If you do not provide a valid excuse with proper documentation, you will not be able to get credit and/or make up the missed assignment.

Exams and Exam Policy

There are 2 exams: the mid-term and the final.

- All scheduled exams will be taken on computers in the classroom.
- The exams are closed books and closed notes.
- Exams may have MULTIPLE-CHOICE/TRUE FALSE/FILL IN THE BLANK questions, OPEN ENDED ESSAY-TYPE questions, as also hands-on assignment questions (or any combination of these)
- Examinations will be administered during the scheduled days (please check course calendar) in class via webcampus.
- All exams are individual components.

Do not miss any exam. *If you miss an exam without a valid excuse, then your grade in that exam will be zero*. If an exam is missed, it is the student's responsibility to (a) contact the professor as soon as possible via email, telephone or in person, (b) produce a document describing the valid reason for having missed the exam. Examples of valid excuses are serious illness and participation in University sponsored events. If you miss an exam due to illness, a written excuse from a doctor is necessary. When you have to miss an exam due to participation in a University sponsored event, you must inform me prior to the exam and submit appropriate documentation to verify your claim. When you miss an exam for a valid reason, contact your professor with **valid documentation** within 7 days of the missed test. Your grade for that exam will be determined based on your average score from other exams. Only one missed exam may be substituted in this manner with valid excuse as indicated above. *No makeup exams are ordinarily given.*

Term Project

- The Term Paper is a group-based assignment.
- Grading is team-based for this assignment.

- In this assignment you are required to work in teams of max 4 members to investigate/work on any topic related to business intelligence. (You can choose any business discipline such as Marketing, Management, Finance etc.). Your investigation will be in the form of a term paper.
- You will also present it (as a group) in a 15 minute presentation (including 3 minutes for Q&A).
- Full points for this paper (including the presentation) would be 100.
- The paper should be around 3000 words.

There is considerable flexibility in what can be done, and I encourage you to be creative. You are welcome to:
- give state-of the-art analyses
- compare BI products in the market and make recommendations
- present a case study
- give an update and analysis on current BI practices
- Work on a live project and create a BI solution and present your solution which you discuss in the term paper.

Please note that the paper should not be <u>descriptive.</u> It should be analytical, that is you should try to present some sort of <u>original thoughts</u> in the form of synthesis, recommendations, critique, BI solutions (in case of a live project).

Ideally, a paper that receives a high grade (A) is one that can be <u>potentially submitted or published</u> at a journal/conference.

You are welcome to <u>write up an abstract and run it by me for feedback</u>. (See the optional abstract submission deadline in the schedule)

Possible topics for your term project may include (you are welcome to research on additional topics related to BI).

- Big Data
- Managing unstructured data
- Text mining
- Knowledge management in BI
- In-memory Analytics/In database Analytics
- Active data warehousing
- Mobile BI
- Social BI
- Privacy and BI
- Data visualization

Using warehousing/BI to measure business performance

Academic Misconduct

Academic integrity is a legitimate concern for every member of the campus community; all share in upholding the fundamental values of honesty, trust, respect, fairness, responsibility and professionalism. By choosing to join the UNLV community, students accept the expectations of the Academic Misconduct Policy and are encouraged when faced with choices to always take the ethical path. Students enrolling in UNLV assume the obligation to conduct themselves in a manner compatible with UNLV's function as an educational institution.

An example of academic misconduct is plagiarism. Plagiarism is using the words or ideas of another, from the Internet or any source, without proper citation of the sources. See the *Student Academic Misconduct Policy* (approved December 9, 2005) located at: http://studentconduct.unlv.edu/misconduct/policy.html.

Copyright

The University requires all members of the University Community to familiarize themselves and to follow copyright and fair use requirements. **You are individually and solely responsible for violations of copyright and fair use laws. The university will neither protect nor defend you nor assume any responsibility for employee or student violations of fair use laws.** Violations of copyright laws could subject you to federal and state civil penalties and criminal liability, as well as disciplinary action under University policies. Additional information can be found at: http://www.unlv.edu/provost/copyright.

Student academic appeals policy

Authority and responsibility for assigning grades to students rests with the faculty. However, in those instances where students believe that miscommunication, errors, or unfairness of any kind may have adversely affected the instructor's assessment of their academic performance the student has a right to appeal by the procedure listed in the Catalog and by doing so within thirty days of receiving the grade or experiencing any other problematic academic event that prompted the complaint.

Disability Resource Center
Disability Resource Center (DRC)—The UNLV Disability Resource Center (SSC-A 143, http://drc.unlv.edu/, 702-895-0866) provides resources for students with disabilities. If you feel that you have a disability, please make an appointment with a Disabilities Specialist at the DRC to discuss what options may be available to you. If you are registered with the UNLV Disability Resource Center, bring your Academic Accommodation Plan from the DRC to the instructor during office hours so that you may work together to develop strategies for implementing the accommodations to meet both your needs and the requirements of the course. Any information you provide is private and will be treated as such. To maintain the confidentiality of your request, please do not approach the instructor in front of others to discuss your accommodation needs.
Religious Holidays Policy—Any student missing class quizzes, examinations, or any other class or lab work because of observance of religious holidays shall be given an opportunity during that semester to make up missed work. The make-up will apply to the religious holiday absence only. It shall be the responsibility of the student to notify the instructor **within** the first 14 calendar days of the course for fall and spring courses (excepting modular courses), or **within** the first 7 calendar days of the course for summer and modular courses**,** of his or her intention to participate in religious holidays which do not fall on state holidays or periods of class recess. For additional information, please visit: http://catalog.unlv.edu/content.php?catoid=6&navoid=531.
Transparency in Learning and Teaching
The University encourages application of the transparency method of constructing assignments for student success. Please see these two links for further information: https://www.unlv.edu/provost/teachingandlearning and https://www.unlv.edu/provost/transparency.
Tutoring
The Academic Success Center (ASC) provides tutoring, academic success coaching and other academic assistance for all UNLV undergraduate students. For information regarding tutoring subjects, tutoring times, and other ASC programs and services, visit http://www.unlv.edu/asc or call 702-895-3177. The ASC building is located across from the Student Services Complex (SSC). Academic success coaching is located on the second floor of the SSC (ASC Coaching Spot). Drop-in tutoring is located on the second floor of the Lied Library and College of Engineering TEB second floor.
Rebelmail
By policy, faculty and staff should e-mail students' Rebelmail accounts only. Rebelmail is UNLV's official e-mail system for students. It is one of the primary ways students receive official university communication. All UNLV students receive a Rebelmail account after admission to the university. Non-admitted students should contact the Student Help Desk at (702) 895-0761, in the Student Union Room 231, or by e-mail: studenthelp@unlv.edu. See http://rebelmail.unlv.edu/ for additional information.
UNLV Writing Center
One-on-one or small group assistance with writing is available free of charge to UNLV students at the Writing Center, located in CDC-301. Although walk-in consultations are sometimes available, students with appointments will receive priority assistance. Appointments may be made in person or by calling 895-3908. The student's Rebel ID Card, a copy of the assignment (if possible), and two copies of any writing to be reviewed are requested for the consultation. More information can be found at: http://writingcenter.unlv.edu/
Final Examinations
The University requires that final exams given at the end of a course occur at the time and on the day specified in the final exam schedule. See the schedule at: http://www.unlv.edu/registrar/calendars.

COURSE CALENDAR (Subject to change depending on our progress in the class)

WK	Date	Day	Topic	Material/Assignments
1	Jan 21	W	Syllabus and Introduction	
2	Jan 28	W	SDT Chapter 1: Overview of Business Intelligence, Analytics, and Decision Support	
3	Feb 4	W	SDT Chapter 2: Foundations and Technologies for Decision Making	Quiz 1 (Chap 1)
4	Feb 11	W	SDT Chapter 4: Business Reporting, Visual Analytics, and Business Performance Management	Quiz 2 (Chap 2-4)
5	Feb 18	W	Exam 1 (Chap 1,2,4)	**Deadline for groups to be formed**
6	Feb 25	W	BI Visualization Tools: SAS Visual Analytics/Tableau	
7	Mar 4	W	BI Visualization Tools: SAS Visual Analytics/Tableau	Assignment 1
8	Mar 11	W	BI Visualization Tools: SAS Visual Analytics/Tableau	Assignment 2
9	Mar 18	W	BI Visualization Tools: SAS Visual Analytics/Tableau	Assignment 3
10	Mar 25	W	SDT Chapter 5/7: Data and Text Mining	**Deadline for Abstract Submission (OPTIONAL)**
11	Apr 1	W	Holiday: Spring Break	
12	Apr 8	W	BI Mining Tools: Rapidminer	Quiz 3 (Chap 5-7)
13	Apr 15	W	BI Mining Tools: Rapidminer	Assignment 4
14	Apr 22	W	BI Application Tools: Teradata marketing Applications	
15	April 29	W	BI Application Tools: Teradata marketing Applications	Assignment 5
16	May 6	W	SDT Chapter 13: Big Data and Analytics/ Presentations	Quiz 4; Term Project Due
17		W	Final Exam Date and Time7 p.m.-9:45 p.m. Wed. May 13 8:10 p.m. – 10:10 p.m.	