

Business Intelligence and Analytics  
Spring 2017

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TA Office Hours: TBA

**Course:** MBAD 6201/ DSBA 6201  
**Class Hours:** Monday 12:30 PM-3:15PM  
**Venue:** Center City, Room 801

**Office Hours:** Tuesday/Thursday 1:15pm – 2:15pm (Main Campus)  
Monday 12:00pm -12:30 or by appointment (Center City)

(I am also available right before class at center city)

**Course Materials**

**Handouts, power-point slides, and Assignment Help documents will be posted on Moodle.** You can print the posted material and bring them to class. Please note that I will not provide printed copies of any of the posted materials in the class.

**Course Objectives:**

As we transition from an industrial to knowledge economy, an organization's ability to create and successfully leverage data and knowledge assets will be an important competitive factor.

Data management includes an understanding of issues relating to modeling, using, securing, and sharing the organizational data resources. This course will focus specifically on the understanding of data warehousing, data mining (including rule-based systems, decision trees etc) and other knowledge management concepts.

Business intelligence (BI) is a broad category of applications and technologies for gathering, storing, analyzing, and providing access to data to help enterprise users make better business decisions. BI applications include the activities of decision support systems, query and reporting, online analytical processing (OLAP), statistical analysis, forecasting, and data mining. (SearchCRM.com)

Knowledge management is an emerging discipline of how to effectively deploy technology, organizational practices, and processes to increase an organization's return on its knowledge capital.

This course will examine data and knowledge management from the organizational, technological, and management perspectives.

**Software:** SAS Enterprise Guide and SAS Enterprise Miner  
**Schedule:**

**Tentative course schedule**

This is a tentative schedule and is subject to change. Please refer to Moodle for the most up-to-date schedule.

<b>Date</b>		<b>Topic</b> <b>ALL READING MATERIAL IS POSTED ON</b> <b>MOODLE UNDER THE FOLDER</b> <b>"COURSE MATERIALS"</b>	<b>Homework DUE</b>
Week1	9-Jan	Introduction and course overview	
		Regression	
	16-Jan	<b>HOLIDAY (MLK Jr Day)</b>	
Week 2	23-Jan	Regression	
		Data Warehousing	
Week 3	30-Jan	Data Warehousing	<b>Regression Assignment Due on Monday</b>
Week 4	6-Feb	ROC Curves	<b>Data Warehousing Assignment Due on Monday</b>
Week 5	13-Feb	Decision Table	<b>ROC Curves Assignment Due on Monday</b>
		LOGIT	
Week 6	20-Feb	LOGIT	
		Decision Trees	
Week 7	27-Feb	Decision Trees	
	6-Mar	<b>HOLIDAY (Spring Break)</b>	
Week 8	13-Mar	<b>Exam I</b> <b>(Will include everything till LOGIT)</b>	
Week 9	20-Mar	Association Rule Mining	
Week 10	27-Mar	<b>SAS Enterprise Miner Lab Class</b>	<b>Assignment on Decision Trees Due on Monday</b>
Week 11	3-Apr	Association Rule Mining <i>SAS Demo on Association Rule Mining</i>	
Week 12	10-Apr	Clustering	
	17-Apr	Clustering	<b>Association Rule Mining Homework Due on Monday</b>
Week 13	24-Apr	Neural Networks	<b>Clustering Homework Due on Monday</b>
			<b>SAS predictive Modeling assignment Due</b>
Week 14	1-May	<b>Exam II</b> <b>( Everything covered after Exam 1)</b>	<b>SAS Assignment (Association Rule Mining) on Monday</b>
Week 15	8-May	<b>Optional Comprehensive Final</b> <b>( Entire Course Material)</b>	

**Grading:** We are planning to use Moodle to help with the course and grading

Exams	55%
Assignments (Total 6 <i>excluding</i> SAS)	30%
SAS Predictive Modeling	8%
SAS Association Rule Mining	2%
Class Participation	<u>5%</u>
Total	100%

To compute your final letter grade use the following scale:

**A  $\geq$  90.0%   B  $\geq$  80.0%   C  $\geq$  70.0%   D  $\geq$  60.0%   F < 60.0%**

Grades will be posted on Moodle after each exam or assignment is graded. Access to your grades will be through Moodle. **The grade distribution and scale are subject to change. Depending upon how the entire class performs in each exam I will curve the grades if required.**

**Assignments:**

***Problem Solving Assignments***

These assignments will involve the use of concepts discussed and taught in class. **Assignments must be submitted through Moodle; submission of electronic copies by e-mail or disk is *not* acceptable. Your NAME and ID should appear on the top of each page that you submit.** All assignments should be completed on time and submitted on Moodle before the submission deadline as shown on Moodle. Assignments submitted after the deadline will be considered late. **No late submissions will be accepted on these assignments.**

***SAS - Assignments***

These assignments will be submitted on **Moodle** on the due date. These assignments will involve the use of SAS Enterprise Guide and Enterprise Miner Software. We will be using **SAS Enterprise Miner** for this class. Detailed instructions that are required to complete these assignments will be made available to the students. These are NOT group assignments. A penalty of **20% of the assignment value per day** (including weekends) is assessed on late assignments beginning on the day due.

**All changes in assignments or schedules will be posted on Moodle. It is your responsibility to keep up with the changes that are posted on Moodle.**

**Questions on Exams:**

Questions on the Exams will be taken from the assigned readings of texts, class lectures and assignments. If the answer to a Exam question is disputed, the student should submit a written appeal, citing the source (text page) to the instructor. The instructor will take these appeals into account during grading.

**Missed Exams**

If an Exam is missed, a **COMPREHENSIVE** Exam covering all material for the course will be given during the final exam week. **Please note that you are allowed to miss one and only one exam,** which can be compensated by taking the comprehensive final. For students missing more than one exam, the comprehensive will count towards one exam only.

**THERE WILL BE NO MAKE-UP EXAM FOR A MISSED COMPREHENSIVE EXAM**

**The Internet:**

You will need a **49er express account** to access Moodle. To get your 49er express account (if you don't already have one) contact the information technology services. If you already have a 49er express account, check and make sure that it works correctly.

**Working Together:**

You may work together when learning how to use computers and applications. Moodle has a message board and you are encouraged to use the bulletin board for clarification or questions that can be answered by the instructor or other students. Each student, however, is expected to do the assignments on their own. **Copying the computer files of some other student amounts to scholastic dishonesty** (see below) and will be subject to disciplinary actions that could result in a failing grade or expulsion from the University.

**Attendance**

**Regular attendance is necessary for doing well in this course.** You are expected to attend punctually all scheduled sessions and are responsible for completing the work from all of the class meetings. Attendance will be taken at random during the semester and will be counted towards class participation points. You are responsible for any material covered, announcements made, assignments passed out, and any other type of work you may miss during any absence from class. The quizzes, mid-term exams and final exam may contain material that is not in the slides or handouts but was covered in the class.

*Tardiness or early departure is disruptive and is, of course, strongly discouraged.*

**Class behavior**

Inappropriate behavior in class distracts from the ability of others to profit from their in-class experience. Such inappropriate behavior includes arriving late, leaving early, talking, surfing the net during the class, and so on. Rude and inappropriate behavior **will not be tolerated**. Since it is my responsibility to provide an environment that is conducive to learning for everyone in the class, I will deduct points from the grade of any student who chooses to repeatedly distract others. In particularly egregious cases, I will have the student permanently removed from the class.

**Under no circumstances will students be permitted to spend their class time working on assignments for other classes, checking e-mail, surfing the Web, or printing out homework. Attempts to engage in such behavior will be reflected in lower grades and may lead to removal from the course.**

**Electronic Devices in Class**

Use of cellular phones, pagers, CD players, radios, and similar devices are prohibited in the classroom and laboratory facilities. Cellular phones **MUST BE TURNED OFF DURING CLASS** and students are strongly discouraged from checking their cell-phone messages when the class is in progress. Pagers must be set to vibrate, rather than beep. Use of instant messaging, email or other communication technologies during class time is prohibited. You may use a laptop to take notes during the class, but this should be done without distracting other students and without distracting you from the topic of discussion. Calculators and computers are prohibited during examinations and quizzes, unless specifically allowed by the instructor. *I will take very*

*seriously any complaints from fellow students who are distracted by non-class related use of electronic devices by any student.*

Students violating these policies will be marked for disruptive behavior and may be asked to leave the class. Their grade will also be affected according to the rules of class participation points (pages 2 and 3 of this document).

### **Accommodation for Disabilities**

In compliance with the Americans with Disabilities Act (ADA), all qualified students enrolled in this course are entitled to “reasonable accommodations.” Please notify the instructor during the first week of class of any accommodations needed for the course.

### **Academic integrity**

As a program that helps to create business and government leaders, the College of Business has an obligation to ensure academic integrity is of the highest standards. Standards of academic integrity will be enforced in this course.

University regulations will be strictly enforced in all cases of **academic irregularities, cheating or plagiarism** or any variations thereof. Students assume full responsibility for the content and integrity of the academic work they submit. The guiding principle of academic integrity shall be that a student's submitted work, examinations, reports, and projects must be that of the student's own work.

All UNCC students have the responsibility to be familiar with and to observe the requirements of **The UNCC Code of Student Academic Integrity** (see the Catalog). This code forbids cheating, fabrication or falsification of information, multiple submission of academic work, plagiarism of written materials and software projects, abuse of academic materials (such as Library books on reserve), and **complicity in academic dishonesty** (helping others to violate the code). Additional examples of violation of the Code include:

- Representing the work of others as your own.

For this class, it is permissible to assist classmates in general discussions of computing techniques. General advice and interactions are encouraged. Each person, however, must develop his or her own solutions to the assigned homework and laboratory exercises. Students may not "work together" on graded assignments. Such collaboration constitutes cheating, unless it is a group assignment. A student may not use or copy (by any means) another's work (or portions of it) and represent it as his/her own. If you need help on an assignment, contact your instructor or the TA, not other classmates.

Any further specific requirements or permission regarding academic integrity in this course will be stated by the instructor, and are also binding on the students in this course.

Students who violate the code can be punished to the extent of being **permanently expelled** from UNCC and having this fact recorded on their official transcripts. The normal penalty is zero credit on the work involving dishonesty and further substantial reduction of the course grade. In almost all cases, the course grade is reduced to "F." If you are unclear about whether a particular situation may constitute an honor code violation, you should meet with the instructor to discuss the situation.

If you do not have a copy of the code, you can obtain one from the Dean of Students Office.

Students are expected to **report cases of academic dishonesty** they become aware of to the course instructor who is responsible for dealing with them.

Feel free to discuss the definition of cheating and/or plagiarism with me if you are unclear on these terms or have questions about the acceptability of a particular type of action.

### **Introduction to Moodle:**

Moodle is a software tool for the use of instructors, teaching assistants (TA) and students. It is accessible from the Internet both on and off campus and has the following features:

1. **Syllabus:** A current copy of the course syllabus.
2. **Lecture Notes:** Notes provided from the textbook vendor and the instructor.
3. **Bulletin Board:** Communications about topics that would be of interest to the entire class can be placed on the bulletin board. Students are reminded that all notes posted on the bulletin board are visible to everyone in the class and should contain appropriate material.
6. **Chat Room:** Groups of students can sign up for chat room sessions to work on group projects.
7. **Grades:** You can access your grades here. If you have questions about your grades, communicate through Moodle mail with the instructor. Check the bulletin board to see if there is a message to the class about the posting of grades.
8. **Links:** This contains a number of web links that are related to the course. The publisher of the textbook might have additional material, such as student downloads of data or files, and their web site links can be found here.
9. **Assignments:** Assignments will be posted here and can be downloaded to your PC. Each assignment will have a deadline. This is the latest time the assignment can be submitted without penalty. You can upload your assignment file many times and submit it many times before the given deadline. After the deadline your assignment will be frozen and you will not be able to change your assignment (if it is turned in before the deadline). If you submit your assignment after the deadline it will be considered late. Once your assignment is graded, comments on your assignment will appear along with your grade on Moodle.

### **Diversity Statement**

*The Belk College of Business strives to create an inclusive academic climate in which the dignity of all individuals is respected and maintained. Therefore, we celebrate diversity that includes, but is not limited to ability/disability, age, culture, ethnicity, gender, language, race, religion, sexual orientation, and socio-economic status.*