INFO 3236-001: BUSINESS ANALYTICS
Fall 2014

Class Website and Primary communication channel: Moodle 2 @ UNC Charlotte. Login to http://moodle2.uncc.edu with your 49er credentials and select "INFO-3236-001-Fall 2014-13151". We will NOT be using the old Moodle, so you may want to bookmark the Moodle 2 URL for this class.

Instructor: Dr. C. Subramaniam
Office: 353-A Friday building
Phone: 704-687-7604
Email: csubrama@uncc.edu

Class time: MW 11.00am-12.15pm
Classroom: 339 Friday (third floor), except on some days when your instructor will specify an alternative meeting room.
Office hours: M 9.30am-10.00am; W 9.30-10.30am
By appointment at other times

Catalog Description
INFO 3236. Business Analytics. (3) Prerequisites: Junior or Senior standing; and MIS, OSCM, Economics, or Marketing major or minor in good standing; or permission of department. This course covers various data mining and business intelligence methods, such as rule-based systems, decision trees, and logistic regression. In addition, this course covers query and reporting, online analytical processing (OLAP) and statistical analysis as well as issues relating to modeling, storing, securing, and sharing the organizational data resources. (On demand)

Learning 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. Increasingly organizations are faced with the challenges of “Big Data” and how to effectively use the data for competitive advantage. “Business analytics” refers to the extensive use of data, statistical and quantitative analysis, explanatory and predictive models, and fact-based management to drive decisions and actions (Davenport and Harris, 2007, Competing on Analytics: The New Science of Winning). This class will provide the conceptual foundations of business analytics and an overview of select analytics techniques and software tools.

The specific learning objectives are as follows:
1. To develop an understanding of the business intelligence, analytics and decision support.
2. To understand the principles of data management in a “big data” environment, including the issues relating to storing and organizing organizational data resources using data warehousing.
3. To understand different data mining and analytics tools and techniques (e.g., decision trees, cluster analysis, association rules, and text mining) for solving business problems.
4. To understand how to effectively use reporting and visual analytics tools to present analytics results to a business audience.
5. To understand the ethical and privacy issues when practicing business analytics.

**Course Materials**

1. **Required Textbook:** “Business Intelligence: A Managerial Perspective on Analytics” (Third Edition) by Ramesh Sharda, Dursun Delen, and Efraim Turban, **ISBN-13: 9780133051056.** Softcover or electronic editions are allowed as long as the contents are the same as in the above specified ISBN.

2. **Additional Reading Materials on Moodle 2:** In addition to the text book, the instructor will post on Moodle 2 (https://moodle2.uncc.edu) various handouts, power-point slides, other documents, and links to articles for class discussions. You can print the posted material and bring them to class. Please note that I will not provide printed copies of any of the materials posted on Moodle 2.

3. **Software:** This class will use SAS Enterprise Guide, SAS Enterprise Miner, IBM SPSS Modeler, and Microsoft Excel 2013. The **SAS and IBM software are installed in the student labs ONLY in the Friday building.** They are not available through MSDNAA for installation on your personal laptop or desktop. Keep this in mind and plan accordingly for the class activities, including the homework assignments, project, and exams.

**Grading**

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<thead>
<tr>
<th>Component</th>
<th>Points</th>
<th>Group/Individual</th>
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<tbody>
<tr>
<td>2 Mid-term Exams @ 200 each</td>
<td>400</td>
<td>Individual</td>
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<tr>
<td>Final Exam</td>
<td>250</td>
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<tr>
<td>Assignments</td>
<td>150</td>
<td>Group or individual</td>
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<tr>
<td>Project</td>
<td>150</td>
<td>Group</td>
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<td>Attendance &amp; class participation</td>
<td>50</td>
<td>Individual</td>
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<td><strong>Total</strong></td>
<td>1000</td>
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A: >= 900
B: >= 800 and < 900
C: >= 700 and < 800
D: >= 600 and < 700
F: < 600
**Exams**
There will be 2 midterm exams and a final exam. All exams are closed book and closed notes when they are administered in class. The exams will include essay-type questions and problem solving with analytics software and will be administered in the computer lab. All exam grades will be posted on Moodle. The instructor will keep all exams after grading. However, exam reviews are available during office hours or by appointment. Students requesting a review of their exams should do so within 7 days of the posting of the exam grades. **No grade reviews or adjustments will be done beyond this 7-day period.**

**Makeup exams**
In the event that a student anticipates missing an exam, she/he must provide appropriate supporting documents in advance to the instructor to request a make-up exam. The instructor will review all requests and authorize, at his discretion, eligible students to take makeup exams for missed. A student who misses an exam without prior approval, possibly due to unexpected situation on the exam day, should contact the instructor within 6 hours of the exam start date/time and provide appropriate supporting documentation to be eligible for the makeup exam. It is the student’s responsibility to be aware of and follow the make-up exam policies and no special accommodations will be made for any exceptions. **THERE WILL BE NO MAKE-UP FOR THE FINAL EXAM.**

**Assignments**
During the semester, the instructor will give various assignments to be completed in class or outside. The points and weights for each assignment will be announced by the instructor. He will also announce if an assignment should be completed individually or in groups. Your performances in all of these assignments together will count towards a maximum of 150 points towards final grade. There are **NO MAKE UP** assignments if you miss any in-class assignment, irrespective of the reason for a student missing the assignment.

**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. You are responsible for any material covered, announcements made, assignments distributed, and any other type of work you may miss during any absence from class. The exams may contain material discussed in the class but may not be in the posted powerpoint slides or handouts.

Attendance will be taken at random in class during the semester and will be counted towards your grade (as specified later in this document). Attendance will be an important factor in making borderline grade decisions. Besides, there are a number of good reasons to attend all classes:

- some topics discussed in the class are not covered adequately in the textbook and the instructor may present alternative and better approaches.
- **historically, those who skip the class tend to make less than their target grades.**
• instructor may refuse to answer questions already covered in class but missed due to absenteeism. A student that misses a class is responsible for obtaining any needed information (e.g., notes, announcements) from fellow students.

_Tardiness or early departure is highly disruptive and is strongly discouraged in my class. Recurrence of such disruptive behavior will lead to deduction of points and the student being asked to leave the class._

**Class participation**
Meaningful participation in class includes answering questions posed to the class by the instructor, adding insightful comments or information to the topics being discussed, sharing information relevant to the discussion topic, and asking thoughtful questions that raise the level of discussion for the benefit of the entire class. However, students should refrain from discussions or behavior that disrupts the general learning environment in the class. Such disruptive behavior will be treated seriously and will result in loss of grade points.

**Class conduct**
Disruptive behavior in class distracts from the ability of others to profit from their in-class experience. Such disruptive behavior includes arriving late, leaving early, cell-phone interruptions, using smartphones in class without the instructor’s explicit permission, surfing the net during the class, side conversations between two or more students during lecture, unnecessary comments that add no value to class, and any activities that negatively impact the ability of other students to learn and/or listen in class. Such behavior will be considered rude and inappropriate and 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 engage in disruptive behavior. In particularly egregious and/or recurrent cases, I will have the student permanently removed from the class.

Please avoid spending class time working on assignments for other classes, checking e-mail, surfing the Web, or printing out homework. Repeated engagement in such behavior will be reflected in lower grades and may lead to removal from the course.

**Electronic Devices in Class**
Students are permitted to use laptops or tablets during class for note-taking and other class-related work only, but this should be done without distracting other students and without distracting you from the topic of discussion. Those using these devices during class for work not related to this class must leave the classroom for the remainder of the class period.

Cellular phones MUST BE TURNED OFF/SILENCED DURING CLASS and students are strongly discouraged from checking their cell-phone messages when the class is in progress. Use of instant messaging, email or other communication technologies during class time is not allowed. Calculators and computers are not allowed during examinations and quizzes, unless specifically allowed by the instructor.
I will take very seriously any disruptive behavior in my class. Students in my class should feel free to let me know if any electronic device usage behavior of fellow student/s is distracting her/his learning experience. Such complaints will be treated as confidential, but will help me to take appropriate actions to make sure that such distractions are eliminated and there is a positive learning environment in the class.

Students violating the electronic devices 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.

**Quality of Work**
The expectation is that all your submitted work will be of professional quality both in terms of content and presentation.

- Spelling, grammar, punctuation, clarity of expression, and presentation will count in every piece of work you do for this course. If you have trouble with spelling, grammar or punctuation, have someone proofread your package.
- Your grade will be based on what you say or write and how you present it. It becomes difficult to read for content if the mechanics are sloppy, and a superior job may not be recognized as such if presented in an error-laden package.
- Good ideas sloppily expressed will receive mediocre grades, as will flashy presentations that lack content.
- Students whose native language is not English must meet the same quality requirements as others.

All work submitted for evaluation (including group and individual work) must be neat and clearly marked indicating the question/case to which it relates. Work submitted online must have all files named appropriately so that the instructor can easily understand what the file represents. The instructor will not spend time going through all your files in order to find your submitted work. Even though this is not a language class, the instructor will deduct points for typos or grammatical errors in submitted work. Whether it is individual work or group work, it is a good idea to thoroughly review it before submitting it. Do not ask/expect the instructor to review your work before submission for opinions or feedback.

**Team Work**
For group activities, each team is responsible for organizing itself, dividing up the work, and deciding how relative contributions should be measured. It is your responsibility to promptly inform the instructor of any dysfunctional team dynamics and to solicit his help.

It is the responsibility of the team to ensure that all team members understand all concepts related to the completed projects and presentations. The instructor may ask questions about any completed project to any team member and any incomplete or unsatisfactory answers will affect the team grade. The instructor may announce additional measures to obtain feedback on group member contributions and institute appropriate grade penalty for lack of participation. However, this grade penalty will be limited to the course-work that is group-based.
**Extra Credit for this Class**
Any extra-credit opportunities will be the instructor's decision and such opportunities will be presented to the whole class and not to individual students. It is possible that there will be no extra-credit at all for this class. **In any case, no extra-credit opportunities will be given after 11/21/14.** The total points from all the extra-credit combined are not expected to exceed 50 points towards the final grade. I strongly recommend that you do not depend on any extra credit opportunities to improve your grade later in the semester.

**Grade Appeals**
If you believe that the grade you received on an assignment, exam or other graded course component was in error or unfair, you can appeal to the professor in writing within 7 calendar days of the receipt of your grade. The appeal should clearly state the reasons why you believe the grade to be unfair or the nature of the error. Overdue appeals will not be considered late in the semester.

**Incomplete grade policy**
An “incomplete” is not based on a student’s failure to complete a given work or as a means of raising his/her grade by doing additional work after the grade report time. An incomplete grade can be given only when a student has a serious medical problem or other extenuating circumstance that legitimately prevents completion of required work by the due date. In any case, the student's work to date, and before the interruption, should be passing, and the student should provide proper written proof (e.g., a doctor's note), in order to get an 'I' grade.

**Exam Ownership**
Exams take many hours to prepare and, as a form of intellectual property, belong to those who create them (your professors). Consequently, exams must remain in my possession or under my control at all times unless you are given explicit written permission to keep them.

This means that exams cannot be taken out of the room during their administration or during their review at a later class meeting, unless permitted by the instructor.

Students are encouraged to review their exams during office hours or by appointment for study purposes. However, failure to return an exam after taking or reviewing it or removing an exam from my presence at any time will be considered theft of intellectual property. Such action will result in an exam grade of zero and may warrant further disciplinary action.

**Accommodation for Disabilities**
In compliance with the Americans with Disabilities Act (ADA) and university policies, all qualified students enrolled in this course are entitled to “reasonable accommodations.” Please contact the Office of Disability Services, who are very good and offer excellent service, and 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 that 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 efforts and thinking process.

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, for non-graded work. General advice and interactions are allowed when discussing non-graded work. Each student, however, must develop her/his own solutions to any graded assignment or lab exercises. Students may not collaborate on graded assignments or lab exercises, unless explicitly permitted by the instructor to work in groups. 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 a graded assignment, contact your instructor, 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 honor code of academic integrity will 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. Also, students are expected to report cases of academic dishonesty they become aware of to the course instructor who is responsible for dealing with them.

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

Course Changes and Class Schedule
The instructor reserves the right to make any necessary changes to the course content, schedule, and policies. The detailed and latest class schedule will be on Moodle 2.

Have a great semester this Fall at UNCC.

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.