Course Objective

This course familiarizes MBA students with topics ranging from data analysis to applied statistics to decision making in business finance. The main objective of this course is to give MBA students a firsthand experience in applying various data analysis techniques that are very common and relevant at managerial level in corporate settings. Though prior understanding of basic statistics and Excel are helpful but they are not required. The course design is prepared in such a way that novices will not have any problems in comprehending the course topics. The course curriculum is extremely inclusive rather than exclusive to a few students.

Significance of the course/Learning Outcomes:

Students will learn a great deal of applied knowledge in data analytics. The knowledge from this course is very much applicable in the real world. Students will learn the topics that are very practical, used for decision making in corporate settings, and consistent with the analytics direction of the MBA curriculum. The final group project will give students hands on experience on financial/investment decision making process that should make them more marketable during their job/internship interview process.

1. To offer MBA students a good understanding of financial databases such as Morningstar, Bloomberg, and other databases.

2. To offer MBA students analytical skills such as working knowledge of SAS.
3. To offer students a platform where they develop research skills that are very applicable in the real world type atmosphere.

4. To offer MBA students an atmosphere where they have a chance to work collaboratively with other students and faculty to develop a publishable research paper.

5. To offer MBA students a setting where they are exposed to think critically and able to learn and apply statistical and financial models in real world situations.

6. To introduce MBA students about the dynamics of financial markets and portfolio management.

**Special Accommodation**

If you are seeking academic accommodations under the Americans with Disabilities Act at Radford University, you are required to register with the Disability Resource Office (DRO). To receive academic accommodations for this class, please submit your documentation to the DRO in the lower level of Tyler Hall Suites 54-69, by fax to 540-831-6525, by email to dro@radford.edu. After submitting documentation to our office, you will set up an interview with a Disability Services Specialist to discuss accommodations. You will be notified via email once your accommodation package is complete and ready to be picked up. Once you have picked up your accommodation package, you will need to meet with each course professor during their office hours to review and discuss your package. For more information and/or for documentation guidelines, visit [www.radford.edu/dro](http://www.radford.edu/dro) or call 540-831-6350.

**Course Materials**

There is no assigned textbook. We will be using

- software SAS Studio and SAS Enterprise Miner (in addition there are a few other ways to use SAS like SAS on Demand for Academics, SAS University Edition)
- Notes on various topics will be posted on course D2L

Some of the topics include:

1. Predictive Modelling
2. High Performance Data Mining
3. Segmentation and Association Analysis
4. Visual Analytics
5. Mutual Funds
6. Portfolio Theory

Notes will be posted on these topics and/or library/open access sources will be used to learn the assigned topics.

We will be heavily using SAS as the tool to analyze big data therefore students are recommended to have books that are based on SAS Programming such as Using SAS in Financial Research by Ekkehart Boehmer and John P. Broussard, Business Analytics Using SAS® Enterprise Guide® and SAS® Enterprise Miner™: A Beginner's Guide by Olivia Parr-Rud, Decision Trees for
Analytics Using SAS® Enterprise Miner™ by Barry de Ville and Padraic Neville among other SAS based books for data mining to improve the understanding of the software.

Additionally, students are recommended to read the *Wall Street Journal*. I will be using data and other articles from this newspaper so that you can see a clear connection between the theory and real world activities.

Some of the data and related materials are stored with SAS on Demand for Academics (SODA). Please register with SODA by using the following link.

https://odamid.oda.sas.com/SASODAControlCenter/enroll.html?enroll=b7fdd29f-fdf1-4296-8a26-2fe3a7c6b6c6

**Assessment**

There will be assignment at the end of each chapter discussion. These will be problem sets, designed to help you acquire important skills and to consolidate understanding of ideas from the lectures.

A final grade will be based on your performance on three different segments. These three segments are: HWs/Assignments, Term Project, and Class Participation & Attendance. Following weight is assigned to each segment:

- HWs/Assignments: 60%
- Term Project: 30%
- Class Participation & Attendance: 10%

The term paper is a research paper that will be done as a group work. 10% is for presentation, 10% for written report, and 10% is for analytical work.

A final grade will be assigned according to the following schedule:

A final grade will be assigned according to the following schedule:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>91%↑ – 100% = A</td>
<td></td>
</tr>
<tr>
<td>87%↑ - 91% = A-</td>
<td></td>
</tr>
<tr>
<td>83%↑ - 87% = B+</td>
<td></td>
</tr>
<tr>
<td>80%↑ - 83% = B</td>
<td></td>
</tr>
<tr>
<td>73%↑ - 80% = B-</td>
<td></td>
</tr>
<tr>
<td>70%↑ - 73% = C</td>
<td></td>
</tr>
<tr>
<td>≤70% = F</td>
<td></td>
</tr>
</tbody>
</table>
Notes

1. Use “FINC651” as the first word in the subject field of any e-mail to me to ensure a prompt response – typically, by the next business day.

2. All announcements will be made in class. Please make sure to check with other students should you happen to miss a class.

3. Make-up exams will be given only upon a note from the Associate Dean or a doctor stating that you can not take the exam as scheduled at that particular time. In the case of any undocumented absences, you will receive one-half of the lowest score for that exam.

4. To do well in this course, attend all classes. Missed classes are difficult to make up.

5. The Honor Code will be strictly enforced in this course. Any suspected violations of the Honor Code will be reported to the Honor System for action (without your prior knowledge). There are no warnings or second chances.

6. Cheaters will be prosecuted to the fullest extent. Please note the following statement:

   “A fundamental principle of academic, business, and community life is honesty. Violation of this ethical concept will result in penalties ranging from a grade of “F” in the course to dismissal from the university. In all penalties, a letter of fact will be included in the student’s file.”

7. NO extra time will be allotted to you IF you are late for an exam.

8. You are responsible for withdrawing from the class should you decide to do so.

Other Class Policies

1. ADA: Students may seek accommodations in accordance with the Americans with Disabilities Act of 1990. Students with disabilities needing academic accommodations should review Radford University's ADA Policy and work with the University's Disability Resource Office (DRO).

2. E-mail: Students are required to check their email throughout the course. If you use a non-RU e-mail address as your primary e-mail address, arrange for your RU e-mail to be forwarded to your non-RU account. You are responsible for all email sent to your RU account pertaining to this class.

3. Responsibilities: Each student is responsible for keeping up with the class schedule, checking email, and checking the course web site on a weekly basis.

4. Incompletes: There are no incompletes for this course, except in the case of extraordinary circumstances (e.g., excessive absences due to severe illness).

5. Failure to complete a quiz or exam or project: If a student misses a HW or assignment deadline due to an extended illness and a written and a verifiable excuse is provided within two
weeks of the missed assignment deadline, then I may offer an alternative assignment. The physician's note must indicate that the student is too ill to take the scheduled assignment during the entire period. The written excuse must also provide the physician's phone number and address, and a copy must be included in the instructor's files.

**6. Late completion of an assignment:** Late assignments will not be graded and will only be accepted (graded) under certain circumstances such as those mentioned in point 5 above.

**Disclaimer:** I reserve the right to alter the contents, requirements and/or scheduling of this course.

---

**Tentative Class Schedule**

Financial Analytics contains a large body of knowledge, which is impossible to cover in one semester. Therefore, the course includes select topics based on their importance. The schedule is tentative and may be updated during the semester. **Supplemental materials will be included as and when necessary.** In addition, there may be one or two guest speakers.

<table>
<thead>
<tr>
<th>Date</th>
<th>Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>8/29/2016</td>
<td>Syllabus &amp; Introduction to Analytics &amp; SAS</td>
</tr>
<tr>
<td>9/5/2016</td>
<td>Predictive Modelling</td>
</tr>
<tr>
<td>9/12/2016</td>
<td>Predictive Modelling Contd.</td>
</tr>
<tr>
<td>9/19/2016</td>
<td>High Performance Data Mining</td>
</tr>
<tr>
<td>9/26/2016</td>
<td>High Performance Data Mining Contd.</td>
</tr>
<tr>
<td>10/3/2016</td>
<td>Morningstar Database and Stock Price Analysis</td>
</tr>
<tr>
<td>10/10/2016</td>
<td>Theory of Mutual Funds</td>
</tr>
<tr>
<td>10/17/2016</td>
<td>Theory of Mutual Funds Contd. And Portfolio Theory</td>
</tr>
<tr>
<td>10/24/2016</td>
<td>Analyses of Mutual Funds Using SAS</td>
</tr>
<tr>
<td>10/31/2016</td>
<td>Analyses of Mutual Funds Using SAS Contd.</td>
</tr>
<tr>
<td>11/7/2016</td>
<td>Visual Analytics and Other Data Queries</td>
</tr>
<tr>
<td>11/14/2016</td>
<td>Segmentation and Association Analysis</td>
</tr>
<tr>
<td>11/21/2016</td>
<td>Thanksgiving Break (No Class)</td>
</tr>
<tr>
<td>12/5/2016</td>
<td>Special Topics</td>
</tr>
<tr>
<td>12/14/2016</td>
<td>Case Presentation</td>
</tr>
</tbody>
</table>

**Re-Grading**

In line with Grading Guidelines for Radford University Graduate College, the process of assigning grades is intended be one of unbiased evaluation. This means that students are encouraged to respect the integrity and authority of the professor’s grading system and discouraged from pursuing arbitrary challenges to it.

If a student feels that an inadvertent error has been made in the grading of an individual assignment or in assessing an overall course grade, a request to have that the grade be re-
evaluated may be submitted. Students should submit such requests in writing to the professor within 7 days of receiving the grade, including a brief written statement of why he or she believes that an error in grading has been made.

**Classroom Norms**
- Arrive to class on time and stay to the end of the class period. Chronically arriving late or leaving class early is unprofessional and disruptive to the entire class. Repeated tardiness will have an impact on your grade.
- Turn off all electronic devices prior to the start of class. Laptops, cell phones and other electronic devices are a distraction to everyone.

**General Behavior**
The School expects that students will conduct themselves with respect and professionalism toward faculty, students, and others present in class and will follow the rules laid down by the instructor for classroom behavior. Students who fail to do so may be asked to leave the classroom.

**Academic Integrity**
Integrity is critical to the learning process and to all that we do here at Radford University. As members of our community, all students agree to abide by the Radford University Student Code of Conduct, which includes a commitment to:
- Exercise integrity in all aspects of one's academic work including, but not limited to, the preparation and completion of exams, papers and all other course requirements by not engaging in any method or means that provides an unfair advantage.
- Clearly acknowledge the work and efforts of others when submitting written work as one’s own. Ideas, data, direct quotations (which should be designated with quotation marks), paraphrasing, creative expression, or any other incorporation of the work of others should be fully referenced.
- Refrain from behaving in ways that knowingly support, assist, or in any way attempt to enable another person to engage in any violation of the Code of Conduct. Our support also includes reporting any observed violations of this Code of Conduct or other School and University policies that are deemed to adversely affect the Radford University community.

**Honor Code**
You are responsible for maintaining Radford University’s honor code, which mandates zero tolerance for cheating.

**Disclaimer:** I reserve the right to alter the contents, requirements and/or scheduling of this course.