1. **Title of Course:** Investments  
   **Course Number:** FNB 300  
   **Semester:** Fall 2013

2. **Date and Time and Classroom:** Tuesday 6:00 P.M. ~ 8:45 P.M. (F 411)

3. **Required Texts:**  
   Essentials of Investments, Bodie/ Kane/ Marcus. (7e or above) ISBN: 9780073367729, McGraw-Hill

4. **Office & Office Hours:** F730L Tue 3:00 P.M. ~ 4:40 P.M. and Thu 12:00 P.M. ~ 12:50 P.M.

5. **Learning Objectives**  
   This course aims at:

   a. Studying the quantitative framework to provide rigorous guide to investing in a dynamic economy; applying theories & techniques to the current investing climate

   b. Training the students for professional careers in financial industry and/or to achieve the level of expertise enabling them to perform analyst role in their own investment projects

   c. Developing students' skills and expertise in the use of EDP and quantitative software as a tool to conduct analyze & value securities, and conduct economic & financial research

6. **Student Learning Outcomes**  
   Upon completion of the course, the students should be able to:

   a. Read, interpret and analyze economic & financial data, charts, and graphs relevant to making financial and investment decisions;  
      Exam, Quiz

   b. Utilize intermediate-level mathematical and statistical techniques to evaluate investment opportunities including discounted cash flow, present values, future values, annuities, bonds and stock valuations by DDM & its variants and by fundamental analysis including various financial ratios;  
      Exam, Quiz, Portfolio Project

   c. Estimate regression coefficients; use CAPM to accurately compute required return, and APT to evaluate arbitrage opportunities; calculate cost of capital, expected return on individual assets and portfolio by simple & weighted average or moving average methods;  
      Exam, Quiz, Portfolio Project

   d. Analyze return vs risk, make risk-adjustment, and determine the optimal asset allocation to construct the maximum-return over minimum-risk portfolio when choosing alternative investment instruments;  
      Exam, Quiz, Portfolio Project

   e. Use the computer S/W packages to perform the above procedures for valuation and analysis purposes;  
      Portfolio Project

**Prerequisites and/or (Co-requisites):** All remediation, FNB 100, (MAT 150/ MAT160, MAT 200, MAT 206)
Below are the college’s general education goals. The goals that are checked in the left-hand column indicate goals that will be covered and assessed in this course.

<table>
<thead>
<tr>
<th>General Education Goals</th>
<th>Measurements (means of assessment for general education goals)</th>
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<tbody>
<tr>
<td>Communication Skills-</td>
<td>Students will write, read, listen and speak critically and effectively.</td>
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<tr>
<td>Quantitative Reasoning-</td>
<td>Students will use quantitative skills and the concepts and methods of mathematics to solve problems. Interpret the financial and economic issues at large in quantitative terms, identify &amp; analyze the quantitative nature of these problems; Utilize intermediate-level mathematical &amp; statistical techniques to evaluate investment opportunities and perform analysis. (Exam &amp; Portfolio)</td>
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<tr>
<td>Scientific Reasoning-</td>
<td>Students will understand and apply the concepts and methods of the natural sciences. Make observations based on data to identify possible correlation/causality between random variables; identify &amp; analyze functional relationship between potentially interdependent factors; set up hypotheses to explain these relationships; and possibly build &amp; run a model to statistically test hypotheses. (Exam &amp; Portfolio)</td>
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<tr>
<td>Social and Behavioral Sciences-</td>
<td>Students will understand and apply the concepts and methods of the social sciences.</td>
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<tr>
<td>Arts &amp; Humanities-</td>
<td>Students will develop knowledge and understanding of the arts and literature.</td>
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<tr>
<td>Information &amp; Technology Literacy-</td>
<td>Students will collect, evaluate and interpret information and effectively use information technologies. Identify, comprehend and analyze the quantitative nature of economic &amp; financial problems and use information technology as a major tool for research and problem-solving. (Portfolio)</td>
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<tr>
<td>Values-</td>
<td>Students will make informed choices based on an understanding of personal values, human diversity, multicultural awareness and social responsibility.</td>
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8. **Course Outline**

- **Mathematical Finance**
  - Topic 1: **Backgrounds, Asset Classes, Financial Instruments, and Security Markets**
  - Topic 2: **Bond Prices & Yields**
  - Topic 3: **Managing Bond Portfolios**
  - Topic 4: **Equity Valuation**
Exam Policy
1. Interim Quizzes/Homework will be given at the first quarter point and at the third quarter point.
2. Midterm & Final Project will be determined depending on the overall progress of the class. The project will consist of constructing an optimal portfolio to deliver the maximum performance based on all analytical, evaluative, and forecasting models and techniques.

Grading Criteria
1. Midterm: 30%
2. Final or Project: 30%
3. Homework & Quizzes: 30%
4. Attendance: 10%

Attendance & Class Participation
At BMCC the maximum number of absence is limited to one more hour than the number of hours a class meets in one week. For example, if you are enrolled in a 4 hour class that meets 2 times a week, you are allowed 5 hours of absence (not 5 days). In the case of excessive absence, the instructor has the option to lower the grade or assign an "F" or "WU" grade.

A separate on-line Class Forum is set up for collegial communication & cooperation. All messages and notices will be posted on this Class Discussion Group. Students are required to sign up for the group to check out the announcements on regular basis.