FIN 4550-1001 (MBA 5520-5001)
FINANCIAL MODELING
Spring 2014

Instructor: Mingsheng Li
Office Phone: 372-9148
Office Hours: 3:00-4:00pm Tuesday/Thursday or by appointment
Office No.: Rm. 210 BA
Class Time/location: 4:00-5:15pm Tuesday/Thursday (Rm. 1008 BAa)
E-mail: mli@bgsu.edu

➢ Assigned Mini-cases & homework, readings materials (PDF files), PowerPoint notes, and other handouts

Prerequisite: grade of C or better in FIN 3000.

I. Course Description
FIN 4550 (Financial Modeling) is an advanced course in Finance. It focuses primarily on the development of spreadsheet applications and the use of the case method to apply decision-making procedures to real world problems in finance areas.

II. Course Goals
FIN 4550 is a course devoted to (1) enhance students’ knowledge primarily in the areas of corporate finance and investments; (2) improve students’ analytical skills and problem solving ability through spreadsheet developments; (3) enable students to explore and better understand current issues in finance, and (4) maximize students’ learning opportunity by applying Excel skill to solve finance problems. The course employs different methods (such as spreadsheet development, case study, project, etc.) in achieving these goals. Additionally, lectures are presented throughout the course discussing the main theories and issues in finance areas and introducing Excel functions that are commonly used in finance.

The objectives of the course include the following:

1. Apply finance theories and use spreadsheet as a main tool to analyze realistic financial problems in the areas of:
   (1) financial statements and performance;
   (2) working capital management and free cash flow forecast;
   (3) capital budgeting and funds allocation associated with fixed assets;
   (4) alternative source of capital and related cost of raising capital;
   (5) investment analysis, including time value of money, security valuation, and duration.
   (6) Risk analysis and basic derivatives.

2. Using case method as a main pedagogy, maximum involvement and participation on the part of the students is stressed. The course will attempt to develop each student’s ability to make decisions in realistic situations after (i) analyzing problems facing the firm and individuals and (ii) evaluating all available but viable alternatives.

3. Another objective is to expose the student to outside reading materials that are relevant to the course topics discussed. These may come from various sources such as the Journal of Applied Corporate Finance, Journal of Portfolio Management,

III. Student Learning Outcomes

After successfully completing this course, students should be able to:

1. Demonstrate a clear understanding of both conceptual background and analytical techniques necessary to make sound corporate financial management and investment decisions;
2. Develop communication skills through class discussions, presentations, group assignments, and outside readings;
3. Keep the desire to continue to learn throughout their remaining years for personal benefit and professional growth;
4. Retain and effectively use the knowledge and skills related to problem solving in various areas of finance.
5. More effectively utilize spreadsheets to make and present calculations and analysis.

IV. Instructional Strategies

Although this is designed primarily as a course involving students’ presentations and class discussions of cases and assignments, the format would provide opportunities for 1) discussion of outside readings from various sources noted above; 2) lecturing of main theories in the related finance areas and ongoing empirical issues; (3) guest lecturers (if available), etc. Individual assignments, group cases, projects, in-class participation in case and assignment discussions, short case quizzes, case reports, exams, etc., will be part of students’ learning process in the course.

V. Course Content

The following outline relates the student learning objectives to specific topics:

1. Financial Statement/Financial Condition Analysis
3. Source and Cost of Capital/Capital Structure Decisions
4. Capital Budgeting and Investment Decisions
5. Security Risk Analysis and Portfolio Management
6. Dividend Policy and Empirical issues
6. Use and Valuation of Options

VI. Grading Evaluations:

Given the nature of the course, students will be actively involved throughout the course. Case analyses, both written and oral, will be required. Students will be actively involved in using spreadsheet applications to financial problems. A student’s final letter grade in the course depends upon his/her performance in several areas: 1) written case report and case presentations; 2) assigned homework and quizzes, 3) participation in class discussions, 4) exams and research projects. The course grade will be determined based on the following distribution:
FOR FIN4550 STUDENTS

Exam 1 50
Exam 2 50
Group-cases (choose any 5 out of 6) 50
Individual assignments & in-class quizzes 30
Class participation & Discussions 10
Talent Project & Presentation (or Final Exam) 60
Total 250

FOR MBA 552 STUDENTS:

Exam 1 60
Exam 2 60
Individual assignment & cases 30
Group-cases & presentation (6 -1) x 10 50
Class participation & Discussions 10
Final Exam 60
Research or talent Project 60
Total 330

Letter grade will be determined as: A—90% or above, B—80%~89%, C—70%~79%, D—60% ~ 69%, F-- below 59%

Note that for some cases, you need to get additional data from Internet or from the CRSP and/or Research Insight.

VII. Learning Assessment

During the semester, the instructor will be continually monitoring the students’ performance to assess and evaluate their progress towards their learning outcome of the subject matter. The instructor’s assessment will primarily consist of evaluating the student’s individual assignments, performance as a part of a group, class participations (in case discussions and/or in the quality and frequency of questions asked), case quizzes, and on the research paper(s). More specifically, each student will be monitored in the following way:

1. On presentations: identifying issues, quality and thoroughness of analysis of issues, the relevance and completeness of solutions recommended (based upon the analysis), clarity of presentation and other standard requirements of a good presentation;
2. On case & project report: writing quality, accuracy of program and solutions, clarity of explanations, and many of the requirements noted above will also be considered for written report.
3. On the assigned homework & quizzes: correctness of solutions and program, clarity of explanation of answers;

Note:

Homework will be assigned on a regular basis; however, not of all the assignments will be collected. Assigned homework problems will be discussed at the conclusion of the coverage of each chapter. Answers to assigned problems will be made available to students after class discussions. Doing homework before class discussions is REQUIRED for each student and very helpful for students to understand course materials and will have significant effect on your grades.
VIII. Class Policy and Procedures
At a minimum, all policies stated in the current BGSU Academic Honesty Policy and Code of Student Conduct should be followed. Additional class policies include:

A. Make-up Policy:
There is NO make-up exam in GENERAL. In case of illness, emergency or university obligations, you must present written documents from doctors or from relevant department advisors/supervisors of BGSU to prove absence. When absence is unavoidable and with excusable reasons, student must report to the instructor either before the exam or the next class after the exam to arrange a possible make-up exam. The grade for any missed exams without excusable reasons or without reporting to the instructor within the required period is zero. Final exam is comprehensive and covers most of the materials discussed in classes. There is NO make-up for assigned presentations for whatever reasons. The scheduled exam dates may be changes and announced in class.

B. Attendance Policy:
Attendance is required. When absence is unavoidable, student must show written evidence. Otherwise, five (5) points per absence will be taken away from class participation and maximum deduction is limited to 10 points. Late arrival and early leave distract classes and must be kept to a minimum level.

C. Academic Integrity:
All students are subject to Academic Honesty Policy. Academic dishonesty in terms of cheating, reporting or sharing other people’s work to be your own (plagiarism), or any other violations will be reported and penalties will be assigned. (www.bgsu.edu/offices/sa/judicial/academic/index.html). Any cheatings will be identified and punished according BGSU rules.

D. Student Conduct:
Students are also held to the Code of Student Conduct including the policies that prohibit students from disturbing class and from distributing, selling, or publishing class materials and class notes from a professor. Violations will be reported and penalties will be assigned.

Details of the University academic honesty policy are detailed in pages 27-38 in the BGSU Student Handbook available at http://www.virtualonlinelpubs.com/publication/?i=43133.

E. Discipline/Course Specific Policies:
- Students are expected to get prepared before each scheduled class.
- Discussion and asking questions are strongly encouraged and increase students’ grade for class participation. However, multiple conversations are not allowed.
- Students are expected to respect differences in opinion, race and gender and to conduct behavior properly in both professional and academic manners.
- No cell phones, beepers, and pagers are allowed when class is in session.
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<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Chapter and Topic</th>
<th>Notes</th>
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<tbody>
<tr>
<td>1</td>
<td>01/14</td>
<td>Introduction and Excel basics: class orientation: chapters 24-29</td>
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<td>01/16</td>
<td>Basic Financial knowledge Review: (Financial Statements &amp; Free Cash Flow, 1st_ch3)</td>
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<td>2</td>
<td>01/21</td>
<td>Chapter 2: Time Value of Money</td>
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<td>01/23</td>
<td>Chapter 3: What does it cost?</td>
<td>Ch2. problem</td>
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<td>3</td>
<td>01/28</td>
<td>Chapter 3 continued</td>
<td>Mini-case1: Student</td>
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<td>01/30</td>
<td>Chapter 4: Capital Budgeting</td>
<td>Loan (Ch3)</td>
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<td>4</td>
<td>02/04</td>
<td>Chapter 4 continued</td>
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<td>02/06</td>
<td>Chapter 5: more problems in capital budgeting</td>
<td>Mini-case2: Capital</td>
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<td>5</td>
<td>02/11</td>
<td>Chapter 5 Continued</td>
<td>Budgeting (ch4)</td>
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<td>02/13</td>
<td>Exam 1</td>
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<td>6</td>
<td>02/18</td>
<td>Chapter 6: WACC, Gordon Model</td>
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<td>02/20</td>
<td>Chapter 7: Financial Planning Model</td>
<td>Mini-case3: Intel</td>
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<td>7</td>
<td>02/25</td>
<td>Chapter 7 continued</td>
<td>(Financial Model)</td>
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<td>02/27</td>
<td>Chapter 8: Risk, Liquidity Analysis</td>
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<td>8</td>
<td>03/04</td>
<td>Chapter 9 &amp;10: Portfolio Analysis &amp; Investment Decision</td>
<td>Mini-case4 (portfolio)</td>
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<td>03/06</td>
<td>Portfolio Analysis &amp; Investment Decision continued</td>
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<td>9</td>
<td>03/11 ~ 13</td>
<td>Spring Break: Enjoy the sun shine</td>
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<td>03/18</td>
<td>Chapters 11 - 13: CML, SML, CAPM,</td>
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<td>10</td>
<td>03/20</td>
<td>Chapters 11 - 13 continued (Investment performance)</td>
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<td>11</td>
<td>03/25</td>
<td>Exam 2</td>
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<td>03/27</td>
<td>Chapter 15: Bond Valuation</td>
<td>Mini-case 5: Bond</td>
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<td>12</td>
<td>04/01</td>
<td>Chapter 15 continued</td>
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<td>04/03</td>
<td>Chapter 16: Stock Valuation</td>
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<td>13</td>
<td>04/08</td>
<td>Chapter 19 Dividend Policy</td>
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<td>04/10</td>
<td>Chapter 19 continued</td>
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<td>14</td>
<td>04/15</td>
<td>Chapter 20 - 21: Introduction of Options</td>
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<td>04/17</td>
<td>Chapter 20 &amp; 21: continued</td>
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<td>15</td>
<td>04/22</td>
<td>Chapter 20 &amp;21 continued/Chapter 22</td>
<td>Mini-case6: Option</td>
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<td>04/24</td>
<td>Chapter 22: Black-Scholes Formula</td>
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<td>16</td>
<td>04/29</td>
<td>Student Presentations</td>
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<td>05/01</td>
<td>Student Presentations/Final Review</td>
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<td>17</td>
<td>05/05</td>
<td>Final Exam</td>
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**Notes:**
1. The instructor reserves the right to change this schedule (especially exam dates and case assignments) if necessary.
2. Students need special arrangements for classes and tests due health conditions please contact **Office of Disability Services** (372.8495 or http://www.bgsu.edu/offices/sa/disability).
Research & Talent Project

Purpose and Description

Students have different talents and unique interests due to their personality, education background or career goals. Thus, it would be more beneficial for students to choose whatever a topic and format that you are interested as your project, which of course must be related to the main topics of the course. Instead of imposing a specific topic on you based on your instructors’ judgment, students have a chance to choose a topic and format to utilize your potential, explore your interests, and demonstrate your talent.

Specifically:
--No specific topic or format is imposed on you; your creativity is the only limit. However, whatever you choose, you are strongly encouraged to apply extensively various useful Excel functions such as Vlookup, Hlookup, Match, Index, VB Application, Form Controls and ActiveX Controls (from Insert under Developer) and different macros to the topic and project at your choice and to create dynamic charts & tables in your project whenever possible.

-- The project could be a research paper, creating a new case (with spreadsheet template, explanations, and answer keys), developing a computer program or software, writing an Excel & Financial manual or, anything related to the main topics of this course. I will post several sample projects that were completed by previous students.

-- Grading will be based on contents of the project, relevance to the course topics, usefulness to other fellow students, creativeness and innovation, writing quality, presentation (both writing and in-class presentation) clarity and consistence.

-- Individual or team (not more than 3 people).

Main Data Sources:
If students decide to do a research project or create a new case, the following data sources are available:

CRSP—daily and monthly trading statistics, S&P Research Insight—company financial data
Bloomberg Terminals (Finance Research & Trading Room, BAA 2004)
Yahoo Finance—current and historical information of firms and macro information

Key Date Points
- Jan. 30 (the 3rd week): one-page outline about the chosen topic and tentative issues to be addressed.
- March 20 (the 10th week): two pages mid-term progress report, which includes (but not limited to) the followings: (1) narrowed down issues to be addressed in the project; (2) related literature (academic papers and articles) collected and reviewed; (3) data collected and possible test methods to be used.
- April 29: turn-in the final version of the completed project.

Note that it is each student’s responsibility to mark these key dates on your calendar and submit your report on time. Missing a report on the required date will result in a 5 points penalty from total project grade. If any individual could not meet the deadline due to unexpected circumstance, the affected individual needs to inform your instructor prior to the deadline.