FIN 3450, Fall 2007, Syllabus, Online Section TENTATIVE

Code & Name: FIN 3450, Computer Applications in Finance.

Number (CRN): 46468.

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Undergraduate Education in Haworth College of Business: The goal of the Bachelor of Business Administration (BBA) program in the Haworth College of Business is to deliver a comprehensive, high quality, student-centered undergraduate education that prepares students for business and professional careers and fosters a commitment to lifelong learning. Consistent with this goal is a set of ideas and objectives that all BBA students must understand and apply. The ideas are

- Ethical and global issues.
- The influence of political, social, legal and regulatory, environmental and technological issues.
- The impact of demographic diversity on organizations.

The objectives are

- Understand essential business knowledge.
- Make effective business decisions.
- Communicate effectively.
- Understand and apply global business knowledge and diverse perspectives.
- Demonstrate effective teamwork and leadership.
- Demonstrate an understanding of business operations, and product and process technology.
- Understand and use computer-based information systems and infrastructures.
- Practice acceptable standards of ethical and professional behavior.
- Participate in professional development activities.

The content of this course reflects most of these ideas and objectives. In this course you:

- Use technological tools.
  - Calculator, for instance TI BA II Plus, TI BA II Plus Professional, TI 83, or TI 83 Plus.
  - Spreadsheet program, Excel.
  - Database programs, Excel and Access.
  - Computer programming language, Visual Basic for Applications.
  - Web browser program, Microsoft Internet Explorer.
  - Communications (e-mail) program, for instance, Hotmail or WMU’s Web/Bronco Mail
  - Word processing program, Word.
  - Photo editor program, Picture feature in Word or Excel.
  - Enterprise Resource Program, SAP.
  - Educational Program, Blackboard Vista.

- Use statistics/regression computer programs.
  - Use regression features in Excel and Minitab (for Windows), to estimate a stock’s beta.
  - Use various statistical features in Excel to determine the risk of a portfolio.
  - Use Excel’s simulation capability to analyze a capital budgeting decision.

- Take exams: three computer exams. These computer exams test your Excel and Access skills.

- Improve writing and word processing skills.
  - Write two papers using Word.
  - Papers contain images.
  - Submit the papers as Word documents.

- Use Global Financial Information.
  - Analyze stock market data from Japan, Germany and United Kingdom.
  - Perform a statistical analysis of exchange rates.

- Use critical thinking in Finance.
  - Learn to demonstrate an understanding of ideas (much more than memorizing formulas).
  - Learn to estimate and to check answers to numerical problems.
  - Learn to express mathematical relationships in words and pictures.
  - Learn to see how one finance problem is similar to and different from another problem.
  - Learn how “not to lie” when using statistics and know when others “lie” when using statistics.
**Prerequisite:** FIN 3200, Business Finance, or an equivalent course, is the prerequisite for this course. That is, FIN 3200, or an equivalent course, must be successfully completed before taking this course. Any student that has not successfully completed this prerequisite course should see the teacher immediately. A student who has not successfully completed FIN 3200 or an equivalent course and who does not see the teacher immediately can be dropped from the course at any time during the semester.

**Drop Information:** The last day to drop this course without academic penalty is Monday, November 5, 2007. If you do not do two things, such as take an exam or hand in projects, the teacher presumes that you have dropped even if the drop is not “official.”

**Incomplete Policy:** The final grade of I for incomplete is a temporary grade that the teacher gives when illness, necessary absence, or other reasons beyond the control of the student prevent completion of course requirements by the end of the term. To be considered for a final grade of incomplete the student must contact the teacher, must have evidence of illness (or other reason), must be passing the course (when making the request), and must have completed the majority of the course work. Note, the grade of I (Incomplete) is not given as a substitute for a failing grade. Students have one year to remove a grade of I (Incomplete). If not removed within this time period the grade is changed to E (Failure).

**Description:** Apply commonly used computer software and data systems to finance. Examples of the computer software are Excel, Expo, Minitab, SAS and Word. Financial information is obtained from web sites or financial databases such as Research Insight and CRSP. Some of the financial problems studied are creating cash budgets and loan amortization tables, estimating beta and forecasting financial needs. Students demonstrate computer proficiency through projects, exams and team presentations. (Source: Western Michigan University Undergraduate Catalog, 2006-2007).

**Objective:** The objective is to increase the student’s ability to understand some of the computer programs and quantitative techniques used in finance. To understand means much more than memorization or copying what is in a textbook. The obvious example of a computer program is the spreadsheet program Excel. An obvious example of a quantitative/statistical tool is using the regression estimate of the slope as an estimate of systematic risk (Beta) and the regression estimate of R-squared (coefficient of determination) as a measure of stock (portfolio) diversification.

What D. McCloskey says about economics in *The Rhetoric of Economics* is also applicable to finance:

Economics is not primarily a matter of memorizing formulas, but a matter of feeling the applicability of arguments, of seeing analogies between one application and a superficially different one, of knowing when to reason verbally and when mathematically, and what implicit characterization of the world is most useful for correct economics. (page 178)

McCloskey goes on to say that the way you obtain these "critical thinking" skills is practice, practice, practice and practice! How will you learn to use Excel to analyze finance problems?

The teacher’s objective is also reflected in the following: In his textbook, *Spreadsheet Modeling in the Fundamentals of Investments*, (Prentice Hall, 2002) Craig W. Holden writes (first page of Preface section), “my goal is simply to change finance education from being calculator based to being spreadsheet modeling based. This change will better prepare students for the 21st century business world.”

In the textbook, *Fundamentals of Financial Management, Concise Fourth Edition*, (Thomson South-Western, 2004) the authors Eugene F. Brigham and Joel F. Houston illustrate the importance of technology and quantitative techniques in finance:

As we advance into the new millennium we will see continued advances in computer and communications technology, and this will continue to revolutionize the way financial decisions are made. Companies are linking networks of personal computers to one another, to the firms’ own mainframe computers, to the Internet, and to their customers’ and suppliers’ computers. Thus, financial managers are increasingly able to share information and to have “face-to-face”
meetings with distant colleagues through video teleconferencing. The ability to access and analyze data on a real-time basis also means that quantitative analysis is becoming more important and “gut feel” no longer sufficient. As a result, the next generation of financial managers will need stronger computer and quantitative skills than were required in the past.

The objective of this course is also reflected in the following job ads (Monster.com, May 2007).

Job 1: Senior Financial Analyst, Branch Channel, Grainger.

Primary Function
To provide oversight to monthly reporting results and to the annual operating plan, capital plan, and quarterly forecasting process for Branch Operations, with an operating expense budget of approximately $341M.

To identify, maintain, interpret, and communicate key business metrics.
To identify opportunities to improve overall financial results and operational efficiency, through sales growth and expense management.
To provide business insight into performance drivers and provide ongoing financial support on various business-related projects.
The Senior Financial Analyst interacts with personnel in Branch Services (in both the field and headquarters), Finance, and other corporate departments.

Principle Responsibilities
Provide review and oversight for monthly reporting results, including Flash, Expense Template, Customer Service Financials, Expense/Sales Reporting, Staffing Model, and Customer Service Leadership Team Reporting.
Provide review and oversight to annual expense plans and periodic forecasts for key areas within Branch Services, with an operating budget of $341M.
Participate on cross-function teams to identify key projects, quantifying the related expense, capital, and resource requirements, while providing strong financial leadership and direction throughout the organization.
Identify and implement improvements to the staffing model to eliminate variation, increase integrity, and ensure equity within the model.
Act as the Customer Service finance lead on the Staffing Model, AIP Team, and other related teams.
Work cross functionally to maintain the financial integrity of the model and manage financial goals of Customer Service.

Address complex staffing model calls from the field (i.e. 'Level 2' calls).
Refine existing tools for reporting, planning, or forecasting to increase flexibility and to incorporate new business issues.
Conduct research on cost reduction programs and conduct various special projects. Deep dive analysis in support of Customer Service financial and operational goals.
Coordinate consolidation of expense plans and periodic forecasts within Customer Service.
Monitor expenses to Plan/Forecast, identify expense risks and opportunities and communicate progress via reporting.

BS/BA in Finance or Accounting.
4-7+ years finance or accounting experience.
Strong organization & analytical skills.
Strong interpersonal skills – ability to interact with all levels of Finance and Non-finance personnel.
Initiative and orientation to improve processes. 
Self-starter, results driven. 
Strong communication skills, both oral and written. 
Strong systems & PC skills, particularly Excel. Knowledge of SAP desired.

The audience for this position's output is all levels of the Branch Services organization as well as Finance management. 
The primary responsibilities consist of providing direction and oversight to the preparation of expense plans, forecasts, and business metrics, along with meaningful business insight for communication to business partners throughout the organization.

Decisions made in this role have a direct impact on the financial plan and actual results for the branch network. The financial plan is prepared at the branch level; covering 400+ branches and an operating expense budget of $341M.

An accurate plan has a direct impact on measuring the success of the Branch Managers, DBSMs, and RBSVPs, which is determined based on their ability to meet or exceed their individual Expense/Sales plan.

Decision making in this role involves those in the branch network, and business partners in Accounting, Business Intelligence, and other parts of GIS.

Reports to the Manager, Customer Service Finance. 
Interfaces regularly with Finance, Branch Services (field and HQ), and support teams. 
Interfaces periodically with varying levels of leadership throughout the organization.

Grainger is a Fortune 500 company and the leading broad line supplier of facilities maintenance products serving businesses and institutions throughout North America with sales of over $5 billion. Through its network of nearly 600 branches, large distribution network and multiple Web sites, Grainger helps customers save time and money by providing them with the right products to keep their facilities running.

Job2: State and Local Tax Associate, JPMorgan Chase

This is an Associate-level position in the Corporate Tax Department. In this role, you will be responsible to:

Prepare state and local income and franchise tax estimates, extensions, and returns. 
Review various state returns, respond to notices, and assist lines of business in resolving tax issues. 
Prepare state tax apportionment work papers. 
Research various state and local tax issues to ensure tax compliance. 
Assist state tax planning group with tax research, analysis and related audit support. 
Assist in monthly, quarterly and annual state tax accounting review.

Requirements
3 - 5 years of state tax experience in a public accounting firm or corporation 
Bachelor's degree in Accounting or Finance 
Strong MS Office skills, especially in Excel and Access 
Previous experience with InSource and SAP a plus 
Experience in state tax issues related to partnerships and financial organization preferred 
Excellent teamwork and communication skills (both written and verbal)

JPMorgan Chase is an Equal Opportunity and Affirmative Action Employer, M/F/D/V.

Job3: Financial Analyst. Our client is a global consulting firm who has experienced tremendous growth in recent years. They are currently searching for an experienced Financial Analyst to join their downtown team. If you are highly motivated and looking to gain experience with a prestigious firm, please
Responsibilities include:

• Role requires a thorough understanding of accounting and GAAP
• Functions include budgeting, trend analysis, forecasting, and financial modeling of contract revenue, revenue/cost correlations and projections
• P/L analysis, labor costing and distribution, billing revenue analysis, journal entries, balance sheet reconciliations, and responsibility for preparation of financial statements.
• Requires excellent communications skills - up, down and lateral in organization - including management presentations.
  • Must interface and communicate with business, technical and contracts executives.
  • Must work well with others.
  • Focus on playing integral role on a newly formed team, while integrating into larger F&A group.
Requirements
• 3-6 years experience in Accounting/Finance with revenue analysis and forecasting.
• Project financial experience a plus.
• Requires strong analytical skills and attention to detail.
• SAP experience a plus.
• Exceptional personal computer and business solutions software skills; advanced knowledge of Excel (VLookup, Pivot tables, formula nesting for functions, macros), Access (queries), accounting principles and written communication skills.
• Bachelor's degree in business administration, finance or accounting.

If you would like to learn more about this opening, please submit your resume for immediate consideration!

Built on 30 years of experience, The Mergis Group recruits talent across multiple industries and professional disciplines. Our focused approach enables us to provide you with the finest talent and job opportunities in the following specialty areas:

Accounting and Finance
Information Technology
Engineering and Manufacturing
Legal
Sales and Marketing
Human Resources

For high-touch, specialized recruiting expertise, The Mergis Group is your bridge for the best hire — contact us today!

Office Hours:  Tuesday, 8:00 am to 9:15 am,
              Tuesday, 12:30 pm to 4:15 pm,
              Thursday, 8:00 am to 9:15 am,
              Thursday, 12:30 pm to 4:14 pm,
              By appointment.

Office hours start on Tuesday, September 4, 2007, and end on Thursday, December 6, 2007.

Textbook: The required textbook for this course is Microsoft Office Excel 2007 Bible, by John Walkenbach, Wiley Publishing, Inc., 2007 (ISBN 10 = 0470044039, ISBN 13 = 978-0470044032). It should be available in the Bernhard Center Book Store and has a pretax price of about $40.00 (new copy). The book contains 7 parts and 45 chapters. The parts are:

1. Getting Started with Excel.
2. Working with Formulas and Functions.
5. Analyzing Data with Excel.
6. Programming Excel with VBA.
7. Appendixes.

On page xxxix Walkenbach writes “This book is written for Excel 2007 for Windows. No exceptions. If you’re using an older version of Excel I suggest that you put down this book immediately and find a book that’s appropriate for your version of Excel. The changes in Excel 2007 are so extensive that you’ll probably be hopelessly confused if you use an earlier version.” Implication: Since this is the required textbook, you need to have or have access to a computer with Microsoft Office 2007 (Excel 2007).

In this course all or parts of 39 of the 45 chapters in the textbook are covered. The chapters not covered are 18, 30, 41, 42, 43, and 45. The first 10 chapters (Part 1) are considered review. That is, students should look it over during the first week.

When working on the Excel course projects the chapters are not covered chronologically. This should not be a problem because most chapters are self contained (do not depend on what is mentioned in prior chapters). Additionally, the teacher chooses the textbook chapters that fit the course projects. That is, the textbook is used as a reference for various Excel features in Projects 3 through 9 and 11. Stated another way, each of these projects has a background section that indicates sections of the textbook that relate to the project. For instance, one Excel feature that is used in this course is custom views. How to use custom views is discussed on pages 171 and 172 in the textbook.

The chapters are covered chronologically when taking the Excel computer exams. See the Excel exams pdf file on the Exams web page.

**Materials:** In addition to the course textbook, each student must have
- A hand-held financial calculator that has the basic financial keys:
  - n (number of periods),
  - i (interest rate),
  - PMT (Payment),
  - PV (Present Value) and
  - FV (Future Value)
  - As well as the CF (Cash Flow), NPV (Net Present Value), and IRR (Internal Rate of Return),
- keys. The CF, NPV, and IRR keys are used to solve problems with uneven cash flows. In this course many problems are solved using paper and pencil, the calculator, and Excel.
- Calculator manual.
- Computer with Office 2007, Professional Version (your own, a friends, or WMU’s computer lab).

Reminder, bring your calculator and manual to every Excel computer exam. You can use both the calculator and manual when taking a computer exam.

If you do not own a financial calculator there are two that have the basic financial keys plus the NPV, IRR and CF keys and are relatively inexpensive. These are the Hewlett Packard 10 B II, Texas Instruments BA II Plus, and Texas Instruments BA II Plus Professional. Best Buy, Meijer, Office Depot, Office Max, and Target sell most of these calculators.

At the start of the Fall 2007 term all of WMU’s computer labs should have Microsoft Office 2007. You will be taking computer exams using Excel 2007. The required textbook is about Excel 2007. The project files and help files illustrate Access 2007, Excel 2007 and Word 2007. Project 1 requires you to write about help and copy features in Excel 2007. If you do not have Office 2007 on your computer or a computer that you use you can use either Office 2007 in WMU’s computer labs or use your version and make the needed adjustments. You can buy the Professional version of Office 2007 for $89.95 (plus tax and shipping fee) each (one copy per person, per software package) at WMU’s Microcomputer Consulting and Support (MCS). It is located on the second floor of the University Computing Center and is open
Monday through Friday, 8:00 a.m. to 5:00 p.m. The phone number is 269.387.5460. Credit cards, checks, and cash may be used. In contrast, Best Buy’s price for Microsoft Office 2007 Professional version is $329.99 for the upgrade and $499.99 for the new version (prices checked on the web, May 2007).

**File Storage:** A few years ago Apple Computer decided to discontinue the 3.5 inch floppy disk drive as a standard feature on its computers. If you want one you have to pay extra. Dell also does this. The inference, the 3.5 inch floppy diskette is going the way of the 5.25 inch floppy diskette. In this course floppy diskettes are NOT allowed. You have three choices to store your files:

- Use a flash drive. Also, called thumb drive.
- Use your e-mail account. That is, e-mail the file to yourself.
- Use homepages.wmich.edu to save/store your files. The teacher suggests that you use this procedure. You have paid for it (usage is free). It is discussed in Module 3, Part B.

When you take an Excel computer exam you need to keep a backup. Acceptable backups are keeping the file on your flash drive, on your homepages account or your e-mail account. That is, if something happens and your compute crashes you have access to a backup.

**FIN 3200 Textbook in Library:** During the Fall 2006 term most sections of FIN 3200, Business Finance, started to use the textbook, *Fundamentals of Financial Management, Concise Fifth Edition*, by Eugene F. Brigham and Joel F. Houston, Harcourt College Publishers, 2007. One copy of this textbook is on two-hour reserve in Waldo Library. Many topics in this course build on topics that were covered in FIN 3200 (when you took it) or build on topics that are in the FIN 3200 textbook (but were not covered in your section of FIN 3200). Module 1 has a list of the FIN 3200 topics that you need to know.

**E-mail Guidelines:** The teacher’s prefers to communicate via e-mail (rather than the telephone). The teacher attempts to check his e-mail daily during the week and at least once during the weekend (except when out of town, say, attending a conference). The teacher’s e-mail address is robert.balik@wmich.edu.

The e-mail guidelines are

- Use your wmich.edu e-mail address.
- In the subject section enter FIN 3450 and the topic, (for instance, FIN 3450, Project 1).
- In the body of the e-mail message enter your complete name (first and last name). Write this on the left edge of the page/screen.
- When sending the teacher an e-mail message with an attached file, enter the name of the attached file (including file extension) in the body of the message.
- In the body of the e-mail message type using sentences with proper form (for instance, start sentences with uppercase and do not type the message using all uppercase).

These should be considered common sense guidelines for e-mail messages. However, in past semesters many students have not followed them. Following these guidelines makes it much easier for the teacher to send replies, to keep track of messages and to find a message if it is placed in the wrong folder.

If the teacher receives an e-mail message and these guidelines are not followed an e-mail reply is not sent. Inference: if you send the teacher an e-mail message and you do not receive a reply within 48 hours you need to check the message for guideline errors.

The teacher’s thoughts about e-mail are echoed by Patricia O’Conner and Stewart Kellerman in an article in *The New York Times Magazine* (Sunday, August 11, 2002, page 22). They write: Here’s what our dream e-mail looks like.

- It’s written in good English: clear, plain and, above all, understandable.
- It’s polite, asking instead of demanding and using such quaint terms as Please, Thank You and Sorry. (Our ideal e-mailers never send in anger. They sleep on it.)
- It goes to the point in the first screenful. We computer users have short attention spans.
• It has a helpful subject line; the reader knows at a glance what it’s about and how urgent it is.
• It’s discreet and protects the privacy of everyone involved.
• It mentions what it’s replying to (a cryptic Fine or Nope or Maybe isn’t enough).
• It capitalizes properly. Writing that’s all upper- or lowercase is hard to read.
• It uses shorthand sparingly. Not everybody understands those smileys, abbreviations and techie terms.
• It has obviously been reread—yes, just like real writing.

Additionally, students need to check the amount of space allocated to their e-mail computer account. For instance, most Western students who have @wmich.edu in their e-mail address have their e-mail messages as well as other files stored on Western’s mainframe computer. If the space allocated to this account is filled (or nearly full) the student usually cannot receive e-mail messages and they are returned to the sender. This problem is not unique to Western. It could occur using Hotmail or Yahoo (however, unlikely since the free account size now is at least 250 mb). Students that use the @wmich.edu e-mail address can check the status of their account by going to the web address, http://vms.cc.wmich.edu (select the link Check Status of Your Open VMS Account).

Every term there are a couple of students that “get mad” at the teacher because they believe he is not answering their e-mail messages. The teacher has to inform the student that the allocated disk space was used up and, as a result, the teacher’s e-mail message is sent but not received. The students did not check or did not know how to check the status of their @wmich.edu accounts.

**Web/Blackboard Vista:** Check the course web site as soon as possible. The web address for the course homepage is http://homepages.wmich.edu/~balik/fin3450on/fino3450f07.htm. To access the homepage you need a Username and Password. The Username is Online3450 and the Password is Finance. Type both the Username and Password using the same upper and lower case and no blank spaces.

Blackboard Vista is used to post the course projects, for project discussion groups, and when taking Excel computer exams. You will download files from Blackboard Vista at the start of the exam and submit the completed file using Blackboard Vista. You use Blackboard Vista to submit completed projects.

**Philosophy:** An old saying, generally attributed to Confucius, is: I hear, and I forget; I see, and I remember; I do, and I understand. Consistent with this saying the philosophical foundation of this course is the belief that students best understand by doing. The role of the teacher is that of a facilitator. The teacher provides the students with the big picture, some details and several examples. The students read, work problems, use computer programs (for example, create Excel workbooks). In summary, students are not passive (listen to lectures and take a couple of true-false or multiple-choice exams) but active, preparing Excel workbooks, and writing papers using Microsoft Word.

Additional evidence consistent with the teacher’s belief is the following e-mail message I received from a former student during the Fall 2005 term. This student granted permission to use her name. The message: My name is Cynthia Carstairs and I was a student of yours in Fall of 2003. I graduated in Winter 2004 and took a year off before starting my career. I recently moved to Atlanta and began working as an Analyst for one of the largest consulting firms in the nation; Accenture. I am currently staffed at a Cingular Office in the supply chain management department working on the CATS (Cellular Asset Tracking System) IT Infrastructure and Technical Support SLA (Service Level Agreement). My current responsibility regarding this assignment is to collect reports/data for the metrics specified in the SLA and create a mock up dashboard in Excel for all of the related data/reports.

In the past few weeks I have been on this assignment, the skills introduced in your class have proved to be invaluable. I have had to convert numerous amounts of data in Excel, create Access queries, and write SQL statements to sort/extract data, and design a multitude of reports that will be used for executive reviews. I kept the textbook and modules from your course and they have definitely come in very handy in these past few weeks.

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I think a lot of students, including myself a couple of years back, have the misconception that someone is going to hold your hand when you start a new job and that you will be "trained." I remember students in my own class being distraught about having to "teach themselves" how to perform the assignments in your class. The truth is that your method of teaching is merely an introduction to the real world. Expectations are high and it is up to you as an individual to persevere. When your manager asks you to have something done and emailed to him/her by EOB, you better figure out how to perform the task and get it done on time.

I never had a clear idea of what type of work I would be doing when I completed my degree, but I don't think I realized the importance of technology in the workforce until I became a true part of it. Technology is huge in every workforce and I feel that students really need to understand that. I may have a degree in finance, but I am further developing my technology skills every day. In a consulting role projects are always changing; the thing that remains consistent is the demand for technology. I am just at the dawn of my career, but I know in the years to come I will become deeply technical in order to keep my job and stay competitive in the workforce.

I want to thank you Dr. Balik, for teaching me some of the most important things I took away from college; not only how to use Excel, but for preparing me to meet the demands of the real world. I hope you can share this note with some of your classes, so your students can hear these words from one of their peers. I am about to turn 23 years old next month and I never thought I'd be where I am now when I was still in college. If any class was important while I was in school, it was definitely computer applications in finance. I find myself convinced that this course should be required for all business majors. It really is that important.

Thanks again for everything, and good luck to all of your students. Cynthia Carstairs, Accenture Analyst

What should students understand or know? Currently, whether in finance or any other business discipline, some of the abilities potential employers value highly are demonstrated computer skills (see job ads above), global awareness, and ability to think critically (which includes both communication and thinking skills). All of these are emphasized in this course. For instance, creating Excel workbooks, using a web browser, and writing papers using a word processing program should increase computer skills. Global awareness is fostered by using stock market data for markets in Germany, Japan, and United Kingdom as well as doing some analysis using exchange rates. The structure of the exams, the way they are graded, and the format of the projects foster critically thinking.

**Instruction Method:** The course consists of
- Three Excel computer exams. See PDF file for Excel computer exams – course web site, Exams web page.
- 11 projects (more below).

As you read this syllabus you should realize that there is a large amount of material and for some (maybe most) students this material is difficult. In addition, some (again, maybe most) of you may wonder why students studying finance need to know all this computer and quantitative material. One reason is that many job advertisements mention the need for people with finance, computer and math skills. Another reason is that Excel is a tool that allows the user to make a large number of mathematical calculations quickly. However, the “correctness” of these calculations depends on the ability to create, using Excel, the appropriate mathematical models (examples are portfolio risk, capital budgeting, and option pricing models).

**Attitude:** What is your attitude toward education? The poet William Butler Yeats wrote that “education is not the filling of a pail. It is the lighting of a fire.” I hope your desire to learn will be “warmed” by the “sparks” of knowledge in this course. However, the fire will burn brightly only if you continue to feed it. That is, both the teacher and the student must have a desire to learn for the sparks of knowledge to ignite.
Another aspect of the attitude toward education is that students need to seek out difficulty (for instance, mathematical aspects of finance). According to Alan C. Kay (Computers, Networks, and Education in the September 1991 issue of Scientific American)

Difficulty should be sought out, as a spur to delving more deeply into an interesting area. An educational system that tries to make everything easy and pleasurable will prevent much important learning from happening. (Page 140)

Much of the learning that will go on in the future will necessarily be concerned with complexity. (Page 140)

It is the duty of a well-conceived environment for learning to be contentious and even disturbing, seek contrast rather than absolutes, aim for quality over quantity and acknowledge the need for will and effort. I do not think it goes far to say that these requirements are at odds with the prevailing values in American life today. (Page 140)

Marvin I Mansky of M.I.T. likes to say that you do not understand anything until you understand it in more than one way. (Pages 147-148)

Is your attitude toward education consistent with Alan Kay’s? If it is not, why is it not?

Finally, what is your attitude toward using computers? Crashes, inability to open files and so forth are common occurrences when using a computer. This can be most frustrating. Until computers become more reliable these unwanted problems will occur. During this course how will you react when these problems occur? How frustrated will you get? Most likely, some of you will get more frustrated than others. For some thoughts about frustration when using a computer go to the web site http://www.stresscure.com/hrn/common.html. Here, Dr. Morton C. Orman discusses 10 common causes of computer related stress or frustration and what can be done to relieve the frustration. The teacher’s suggestion is: plan for computer problems, when they occur stop what you are doing, ask for help. This implies that you are not waiting until the last “minute” to complete a computer task.

**Modules:** To help understand and explain various topics covered in this course there are six modules. Examples of Excel related topics are algebra and logs, time value of money, statistics and regression. Note, many of the numerical problems that relate to these topics can be solved using paper and pencil, can be solved using a calculator, or can be solved using Excel. And most will be done all three ways. One obvious example is the mathematics of loan amortization. In the time value of money module it is illustrated using paper, pencil, and the calculator. The problems in each module are not graded but should be completed/answered. One of the reasons for these modules is to give student some indication of the types of problems that are on the in class (non computer) exams. The modules are

2. Time Value of Money and Capital Budgeting.
4. Readings.
5. Statistics and Regression.

**Computer Exams:** There are three computer exams. The dates and times are:

- Wednesday, October 3, 2007, from 3:45 pm to 5:45 pm (150 possible points).
- Wednesday, November 7, 2007, from 3:45 pm to 5:45 pm (200 possible points).
- Wednesday, December 5, 2007, from 3:45 pm to 5:45 pm (250 possible points)

The Excel exams are give in Room 2230 in the Haworth College of Business.

**Computer Exam Guidelines:**

- You can take it outside of the schedule class time only if you have to attend a scheduled university activity. You must provide written evidence and receive approval prior to the exam date.
- You have to be in the computer lab to take the exam.
• The course textbook, calculator, calculator manual, and any notes can be used.
• If two or more students communicate with each other during the exam both scores are zero.
• When taking the exam students can only ask questions about what is on the exam PDF file.
• Floppy diskettes are not allowed during the exam.

For the content of each exam go to the course web site, Exams web page.
The general format for each exam is to go to Blackboard Vista. The web site has two exam links. One is a PDF file explaining what to do and the other is an Excel on which you work. The Excel file contains some of the data that needs to be transformed, edited, or so forth. When done the Excel file is posted on Blackboard Vista.

Projects: There are 11 projects. Each completed project must be posted to Blackboard Vista. The specific due dates and times are in the Schedule Section at the end of this syllabus. If a project is not completed and posted to Blackboard Vista before the due date and time the score is zero. No matter what the reason there are no “special situation” extensions. There is a handout for each project and it is also placed on the course web site, Projects web page, as a PDF file.

The teacher grades most parts of all projects. This takes time. It is not the same as having a machine grade a true/false or multiple-choice exam. Consequently, the project is usually not graded and returned to the student one week after the due date.

The projects (with possible points in parentheses) are:
1. Use Word to write about Excel help and copy commands. (30)
2. Use Excel to create and print a loan amortization schedule (with chart and cell formulas) and a cash budget (with chart and cell formulas). (30)
3. Learn the basics of SAP. (30)
4. Transfer financial/accounting data for Dell from web to Excel. Use Excel formulas to calculate financial ratios and create a chart of Dell’s stock price. (30)
5. Use regression features in Excel and Minitab to estimate beta and R-Square a common stock. Use Word to write a four to five page report of the regression analysis. (50)
6. Use the web to obtain the needed price data and Excel to estimate the total and systematic risk of the each of the 30 stocks in the Dow Jones Industrial Average and an equally weighted portfolio of these 30 stocks. (30)
7. Use Excel to do capital budgeting. (50)
8. Use Excel to simulate a capital budgeting problem. (30)
9. Use Excel functions and formulas and create User-defined functions to calculate the Black-Scholes Call Option Pricing Model. (30)
10. Use Access for basic data base management. (30)
11. Use Excel to create a financial model. Use Excel skills learned during the term. (30)

Academic Integrity: You are responsible for making yourself aware of and understanding the policies and procedures in the 2006 - 2007 Western Michigan University Undergraduate Catalog that pertain to Academic Integrity [On web: Enter GoWMU, select the catalog links (upper right), select Undergraduate catalog (list, upper right), select Academic Policies (from list on left), and finally select link for Students Rights and Responsibilities]. These policies include cheating, fabrication, falsification and forgery, multiple submission, plagiarism, complicity and computer misuse. If there is reason to believe you have been involved in academic dishonesty, you will be referred to the Office of Student Judicial Affairs. You will be given the opportunity to review the charge(s). If you believe you are not responsible, you will have the opportunity for a hearing. You should consult with the teacher if you are uncertain about an issue of academic honesty prior to the submission of a project, or taking an exam.
Comments: During the term students can give the teacher comments about the course. Unsigned comments can be placed in the teacher’s mail box. Take your note to the Finance and Commercial Law (FCL) department (Room 3290) and ask the secretary to place it in the teacher’s mail box. You can also communicate with the teacher using e-mail. The teacher’s e-mail address is robert.balik@wmich.edu.

Computer Lab: The computer lab in the Haworth College of Business and all other computer labs at Western Michigan University, have Office 2007. The Haworth College of Business lab is the only lab at Western with access to SAP. Thus, you have to use the computers in this lab for Project 2.

If you have to use the computer lab in the Haworth College of Business it is suggested that you try to use it before 11 am. At this time there is virtually never a wait to use a terminal. However, if you wait until the middle of the afternoon you will usually have to wait, especially one of two weeks into the term.

Finance Club: Students that are finance majors or minors should consider joining Western's Finance Club. The club has regular meetings during the Fall and Spring terms. Information about each meeting is usually posted on bulletin boards throughout the Haworth College of Business. One annual activity of the club is a trip to Chicago to visit the derivative (options, futures) exchanges.

Tutors: For specific information about tutors for this course go to the course web site. One student is already listed. This student is a former FIN 3450 student. This is not free tutoring. It is suggested that the tutor’s compensation be determined before the tutoring starts.

Errors: Invariably when creating projects, or other course materials, the teacher makes some errors. If you find an error please inform the teacher (suggestion, send an e-mail message to the teacher, robert.balik@wmich.edu). These errors will then be posted on the course web site and mentioned in class. When missing a class the student must check the web for errors. Project errors are posted on the Projects web page. All other errors are posted on the Changes web page.

The Wall Street Journal: If you want to subscribe to The Wall Street Journal give the teacher your name and mailing address. Indicate whether you want the paper for 6 weeks ($11.95), 15 weeks ($29.95), or 52 ($99.95) weeks (Prices as of May 2007). You should receive the first issue within 10 business days.

Grades: Grades (scores) are available on the course web page. Each student is identified by a five letter code. These five letter codes are handed out during the first meeting. Check your grades frequently. After the final exam you cannot appeal any score you received for any grade/score given prior to the final exam.

There are 1,000 possible points. See the Course Scores table below for the allocation of points. Final grade: If a student accumulates at least 93% of the possible points (930/1,000) a letter grade of A is assured. Also, 88% (880/1,000) for a BA, 83% for a B, 78% for a CB, 73% for a C, 68% for a DC, and 60% for a D.

This grading scale means that a final grade of A is guaranteed if a student accumulates from 93 to 100 percent of the possible points. It also means that it is possible to receive less then 93 percent of the possible points and receive a final grade of A. For instance during most previous terms students that accumulated 90 percent or more of the possible points received an A. For a grade of D the percent of the possible can be, and frequently has been, lowered to 50 percent. It is never less than 50 percent.

Only total points are given a letter grade. That is, for each exam and project there is only a numerical score. At the end of the term the total points are converted to a final course letter grade.

A “bottom line” assessment of grading: If the guidelines for each of the 10 projects are followed a student should receive at least 95 percent of the possible points. The exam scores usually determine the ultimate grade. For instance, anyone who gets 95 percent or greater on the projects and between 70 and 75 percent on the exams should end up with a final grade of CB or B.
<table>
<thead>
<tr>
<th>Item</th>
<th>Possible Points</th>
<th>My Score</th>
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</thead>
<tbody>
<tr>
<td>Questionnaire</td>
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<tr>
<td>Computer Exam 1</td>
<td>150</td>
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<td>Computer Exam 2</td>
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<td>Project 2</td>
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<td>Project 11</td>
<td>30</td>
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<tr>
<td>Participation, Discussion Groups</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>1,000</strong></td>
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Five letter code for course scores on the web
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<th>Week</th>
<th>Material</th>
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<tr>
<td>1 Sep 2 – 8</td>
<td>Class orientation: Wednesday, September 5, 2007, from 3:45 pm to 5:45 pm in computer lab, Room 2230.</td>
</tr>
<tr>
<td>2 Sep 9 – 15</td>
<td>Questionnaire due: Saturday, September 15, 2007 at 11:59 pm.</td>
</tr>
<tr>
<td>3 Sep 16 – 22</td>
<td>Project 1 due: Saturday, September 22, 2007, at 11:59 pm.</td>
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<tr>
<td>4 Sep 23 – 29</td>
<td>Project 2 due: Friday, September 28, 2007, at 1:00 pm.</td>
</tr>
<tr>
<td>6 Oct 7 – 13</td>
<td>Project 4 due: Saturday, October 13, 2007 at 11:59 pm.</td>
</tr>
<tr>
<td>7 Oct 14 – 20</td>
<td>Project 5 due: Saturday, October 20, 2007 at 1:59 pm.</td>
</tr>
<tr>
<td>12 Nov 18 – 24</td>
<td>No projects due: Thankgsgiving Break.</td>
</tr>
<tr>
<td>15 Dec 9 – 15</td>
<td>Final Exam week: No exams to take and no projects to submit. Final grades posted by 8 am on Monday, December 10, 2007.</td>
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