

**HOFSTRA UNIVERSITY**  
**FRANK G. ZARB SCHOOL OF BUSINESS**

*“to provide students with a perspective on the integration of the functional areas of business,  
while maximizing the use of analytical skills and knowledge for decision making in a contemporary  
global business environment”*

**DEPARTMENT OF FINANCE**  
**FINANCE 157 - Seminar: Special Topics in Finance**  
**Financial Modeling**

Tuesdays and Thursdays, 11:10am to 12:35pm  
(Undergraduate course)

<b>INSTRUCTOR’S NAME</b>	<b>Dr. Ahmet Karagozoglu</b>
<b>OFFICE HOUR</b>	<b>T-Th: 10:00-11:00am and 2:15-3:15 pm</b>
<b>LOCATION OF OFFICE</b>	<b>025 Weller Hall</b>
<b>PHONE EXTENSION ON CAMPUS</b>	<b>463-5701</b>
<b>E-MAIL ADDRESS:</b>	<b>finakk@hofstra.edu</b>
<b>Website:</b>	<b><a href="http://people.hofstra.edu/faculty/Ahmet_K_Karagozoglu/">http://people.hofstra.edu/faculty/Ahmet_K_Karagozoglu/</a></b>

**GENERAL INFORMATION**

Location of Department Office	<b>221 Weller Hall</b>
Telephone number of Department	<b>463-5698</b>
Department Chairperson	<b>Dr. Nancy White-Huckins</b>

**DESCRIPTION OF COURSE**

Provides the student with a thorough understanding of the application of quantitative models in finance. While the finance theory is briefly reviewed the majority of course consists of hands on application of modeling in corporate finance, investments, derivatives and risk management. Examination of different approaches to building financial models. Emphasis on the use of real financial data. Students are familiarized with various sources and uses of financial data. Coverage of various financial information sources as well as technology as they relate to the modeling applications. Utilizes various financial software applications.

**PREREQUISITES OF COURSE**

Prerequisite: FIN 101, FIN 110, QM 122, Co-requisite: FIN 132 and/or FIN 135

**REQUIRED TEXT**

Beninga, Simon, “Financial Modeling,” Second Edition, 2000, MIT Press.

**SUPPLEMENT**

Holden, Craig, “Spreadsheet Modeling in Corporate Finance,” 2001, Prentice Hall.

**READINGS:** Readings will consist of the text, assigned journal articles and articles from the *Wall Street Journal*.

## **OUTCOME OBJECTIVES AND METHODS OF ACHIEVING THE OBJECTIVES**

The course has two objectives. First is to give students hands on experience in applying the financial concepts covered in basic finance curriculum. Aim is to increase students' understanding of the quantitative finance theory while giving students appreciation of the intricacies of their applications. This is to be achieved by providing the students the chance to observe and work on the real life scale problems. Second, to teach students how to utilize the financial data and information sources available in real life environment by making use of the various software applications used by finance professionals. Instruction is based on comprehensive projects that require the students to build financial models in order to investigate and analyze contemporary topics in corporate finance, investments, derivatives and risk management.

## **SCHOOL OF BUSINESS POLICY ON MAKEUP EXAMINATIONS**

To be eligible for a makeup examination, a student must submit to the instructor written documentation of the reason for missing a scheduled examination due to medical problems or death of an immediate family member. The instructor (*not the student*) determines whether and when a makeup is to be given. If a makeup examination is to be given, the instructor will determine the type of makeup examination. If the student misses (for any reason) the scheduled makeup examination, additional makeups are *not* permissible.

## **UNIVERSITY POLICY ON INCOMPLETE GRADES**

A student unable to complete a course may, with the permission of the instructor, receive a grade of incomplete (INC). The instructor will permit the student to complete and submit the missing work *no later than the third week* of the following semester. All undergraduate students may accumulate up to nine credits of INC grades without penalty. Past this nine-credit limit, all subsequent INC grades not made up convert to F's at the end of the semester following the one in which they were assigned.

## **DEPARTMENT STATEMENT ON ACADEMIC HONESTY**

The Department of Finance is dedicated to maintaining the highest level of academic honesty in all of its classes. The University Policy on Academic Honesty states that expulsion from the University is a possible punishment for academic dishonesty. The University Policy also states that students “must avoid not only cheating, but the very appearance of cheating.” Activities such as looking at the examination of another student, talking, or passing notes during examinations give the appearance of cheating, and therefore will be regarded as cheating. Submission of assigned work that is identical in any abnormal way to the work of another student is subject to reasonable interpretation as cheating. Students knowingly providing work to others are as guilty of cheating as those who accept their work. (For further information on academic honesty, please refer to the “Policy on Academic Honesty” in the Hofstra University General Bulletin.)

## **ATTENDANCE POLICY**

All students are expected to attend class, and to arrive in the classroom before the class begins.

## **METHODS OF EVALUATING STUDENTS**

Midterm Project	25%	
Final Exam	30%	December 19, 2002: 10:30am-12:30pm
Final Project	25%	Due: December 19, 2002 at 10:30am
Assignments and class participation	20%	
Total	100%	

Students are expected to work on their projects throughout the semester. Weekly assignments are designed to help students prepare for the more comprehensive midterm and final projects. Students are to produce professional projects that are based on sound financial theory. Details of the projects are to be discussed throughout the semester.

## COURSE OUTLINE

### Week 1

#### **Overview of Financial Modeling**

Ch. 1

Discussion and review of the quantitative concepts and tools covered in basic finance curriculum.

### Week 2

#### **Introduction to Financial Information and Data Sources**

Review of various financial data sources, including Research Insight database, Compustat, Federal Reserve data, free data from derivatives exchange websites, bond market data.

### Weeks 3 and 4

#### **Financial Modeling in Corporate Finance**

Ch. 2, 3

Discussion of and hands on projects on cost of capital financial statement modeling.

### Week 5

#### **Valuation Models**

Ch. 4, 20

Review of and hands on projects on stock, bond as well as corporate project valuation.

### Week 6

#### **Financial Analysis of Leases**

Ch. 5, 6

Modeling of financial leases.

### Weeks 7 and 8

#### **Portfolio Modeling**

Ch. 7, 8, 9, 10

Review of and hands on projects on portfolio risk and return, construction of efficient portfolios. Discussion of asset pricing models and their applications.

### Weeks 9 and 10

#### **Term Structure Modeling**

Ch. 22, 21, 23

Discussion and modeling forward rates, interest rate instruments, and immunization strategies.

### Weeks 11, 12, 13

#### **Modeling for Financial Derivatives**

Ch. 13, 14, 16, 24

Review of derivative securities. Hands on application of financial modeling for accounting and pricing of futures and options contracts.

### Week 14

#### **Modeling for Risk Management**

Ch. 12, 18

Discussion of measurement and management issues relating to risk in corporate finance and investments. Hands on projects on value-at-risk and credit risk concepts.

Some topics will be covered more thoroughly than others, while issues that were also discussed in pre-requisite courses will briefly be revisited. The above sequence of topics may be revised throughout the course to ensure a coherent coverage of certain topics. Small assignments as well as the midterm and final projects will be assigned as the topics are covered throughout the lecture. Some assignments will be completed in class while others will require the students to carry out further analysis outside the class.