

Corporate Finance Modeling (FINQ 761)

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Course Description & Objectives: This course will teach how to use statistical software to retrieve, organize, and analyze large financial databases to facilitate corporate financial decision making. Examples of statistical software include Excel, SAS, and Stata. Examples of financial databases include Compustat, ExecuComp, and FactSet. A wide range of advanced statistical and econometric methods will be covered, such as univariate analysis, regression methods, panel data analysis, statistical prediction, and Monte Carlo simulation.

Course Materials:

- 1) *Software:* Excel, SAS, and Stata.
- 2) *Reading materials:* Will be provided by the instructor. These materials will include case studies, software manuals, and academic research papers.

Course prerequisites: Admission in MSQF program or approval by Director of MSQF program.

Exams and Grading:

One midterm and one final exam (25% each) = 50%
Assignments and projects = 50%

- 1) Course grades will generally be assigned as following:

<u>Percentage</u>	<u>Grade</u>
92 ~ 100	A
90 ~ <92	A-
88 ~ <90	B+
82 ~ <88	B
80 ~ <82	B-
78 ~ <80	C+
70 ~ <78	C
60 ~ <70	D
Below 60	F

- 2) Midterm and final exams: Exams will be administered in-class and are individual assignments. The exams will be programing-based. The style of the exams will roughly follow the style of the practice assignments. My best advice on how to perform well on the exams is to attend class and work diligently on the practice assignments.
- 3) Assignments and projects: The main goals of these assignments are to 1) reinforce concepts and techniques introduced in class; and 2) help prepare you for the midterm and final exams. You are free to collaborate on these assignments. I will post solutions to the assignments so that you may check your work. Late work will not be accepted.

- 4) Make-up exams – Due to the nature of the course and exam, there will be no make-up exam. If you contact me prior to a mid-term exam and have a valid excuse with documentation to verify that excuse, I will add that mid-term's grade weight to the final exam. The excuses are rare, which may include a school sponsored excursion or extreme illness documented by a physician's note.
- 5) Final grades – No incomplete grades will be assigned for marginal or failing grades at the end of the semester. There will be no extra credit work available to improve your final grade. Do not attempt to negotiate grades with me at the end of the semester.
- 6) Grading errors – If you believe that any of your work is graded or recorded incorrectly, you may submit a *written request* (email is okay) for review within one week after the grade is posted. Any request after this time limit will not be considered.
- 7) By enrolling in this class, you agree to the Department of Finance's Academic Integrity Policy, which is available on the course website on WebCampus.

Keys to Success:

- 1) Class participation – I expect students to come to class and take an active role in discussions. In order to do so, you should read the assigned material prior to the date it is covered in class. This will both facilitate your learning and help you prepare for exams.
- 2) Studying outside of class – Studying outside class is essential for you to succeed in this course. Practice makes perfect. There is no way around it.

Course Schedule (tentative and subject to change):

Modeling using Excel:

- Capital budgeting
- Sensitivity analysis
- Monte Carlo simulation
- Pivot table

Modeling using SAS:

- Retrieving data from Compustat, ExecuComp, and other large databases.
- Manipulating large data sets using SQL and other techniques.
- Statistical and econometric analysis.

Modeling using Stata:

- Summary and descriptive statistics
- Univariate analysis
- Linear regression analysis
- Non-linear regression analysis
- Selection models
- Instrumental variable regression
- Generalized methods of moments (GMM) regression

Finance topics to be covered:

- Financial-report analysis
- Executive compensation
- Corporate valuation
- Mergers and acquisitions
- Analyst forecast
- Event study

Student learning outcomes:

1. Analyze corporate finance data with advanced statistical and econometric techniques.
2. Apply computer programming and statistical software to analyze corporate finance data.
3. Think critically about corporate finance problems and provide potential solutions.
4. Communicate effectively.

University Policies:

Academic Misconduct—Academic integrity is a legitimate concern for every member of the campus community; all share in upholding the fundamental values of honesty, trust, respect, fairness, responsibility, and professionalism. By choosing to join the UNLV community, students accept the expectations of the Student Academic Misconduct Policy and are encouraged when faced with choices to always take the ethical path. Students enrolling at UNLV assume the obligation to conduct themselves in a manner compatible with UNLV's function as an educational institution. An example of academic misconduct is plagiarism. Plagiarism is using the words or ideas of another, from the Internet or any source, without proper citation of the sources. See the *Student Academic Misconduct Policy* (approved December 9, 2005) located at: <https://www.unlv.edu/studentconduct/student-conduct>.

Classroom Conduct—Students have a responsibility to conduct themselves in class and in the libraries in ways that do not interfere with the rights of other students to learn or of instructors to teach. Use of electronic devices such as pagers, cellular phones, or recording devices, or potentially disruptive devices or activities, are permitted only with the prior explicit consent of the instructor. The instructor may rescind permission at any time during the class. If a student does not comply with established requirements or obstructs the functioning of the class, the instructor may initiate an administrative drop.

Copyright—The University requires all members of the University Community to familiarize themselves with and to follow copyright and fair use requirements. You are individually and solely responsible for violations of copyright and fair use laws. The university will neither protect nor defend you, nor assume any responsibility for employee or student violations of fair use laws. Violations of copyright laws could subject you to federal and state civil penalties and criminal liability, as well as disciplinary action under University policies. Additional information can be found at: <http://www.unlv.edu/provost/copyright>.

Disability Resource Center (DRC)—The UNLV Disability Resource Center (SSC-A 143, <http://drc.unlv.edu/>, 702-895-0866) provides resources for students with disabilities. If you feel that you have a disability, please make an appointment with a Disabilities Specialist at the DRC to discuss what options may be available to you. If you are registered with the UNLV Disability Resource Center, bring your Academic Accommodation Plan from the DRC to the instructor during office hours so that you may work together to develop strategies for implementing the accommodations to meet both your needs and the requirements of the course. Any information you provide is private and will be treated as such. To maintain the confidentiality of your request, please do not approach the instructor in front of others to discuss your accommodation needs.

Final Examinations—The University requires that final exams given at the end of a course occur at the time and on the day specified in the final exam schedule. The general schedule is typically available at the start of the semester, and the classroom locations are available about a month before the end of the semester. See the schedule at: <http://www.unlv.edu/registrar/calendars>.

Incomplete Grades—The grade of “I”—Incomplete—can be granted when a student has satisfactorily completed three-fourths of course work for that semester/session but for reason(s) beyond the student’s control, and acceptable to the instructor, cannot complete the last part of the course, and the instructor believes that the student can finish the course without repeating it. The incomplete work must be made up before the end of the following regular semester for undergraduate courses. Graduate students receiving “I” grades in 500-, 600-, or 700-level courses have up to one calendar year to complete the work, at the discretion of the instructor. If course requirements are not completed within the time indicated, a grade of “F” will be recorded and the GPA will be adjusted accordingly. Students who are fulfilling an Incomplete do not register for the course but make individual arrangements with the instructor who assigned the “I” grade.

Library Resources—Librarians are available to consult with students on research needs, including developing research topics, finding information, and evaluating sources. To make an appointment with a subject expert for this class, please visit the Libraries’ Research Consultation website: <http://guides.library.unlv.edu/appointments/librarian>. You can also ask questions via chat and text message at <http://ask.library.unlv.edu/>.

Rebelmail—By policy, faculty and staff should email students’ Rebelmail accounts only. Rebelmail is UNLV’s official email system for students. As such, it is a primary way students receive official university communications such as information about deadlines, major campus events, and announcements. All UNLV students receive a Rebelmail account after they have been admitted to the university. **Emailing within WebCampus is acceptable.**

Missed Classwork—Any student missing class quizzes, examinations, or any other class or lab work because of observance of religious holidays shall be given an opportunity during that semester to make up missed work. The make-up will apply to the religious holiday absence only. It shall be the responsibility of the student to notify the instructor within the first 14 calendar days of the course for fall and spring courses (excepting modular courses), or within the first 7 calendar days of the course for summer and modular courses, of his or her intention to participate in religious holidays which do not fall on state holidays or periods of class recess. For additional information, please visit: <http://catalog.unlv.edu/content.php?catoid=6&navoid=531>.

In accordance with the UNLV Faculty Senate-approved policy regarding class time and assignments missed, students who represent UNLV in any official extracurricular activity shall also have the opportunity to make up assignments, provided that the student provides official written notification to the instructor no less than one week prior to the missed class(es).

The spirit and intent of the policy is to offer fair and equitable opportunities to all students, including those representing the university in extracurricular activities. Instructors should consider, for example, that in courses which offer a “drop one” option for the lowest assignment, quiz, or exam, assigning the student a grade of zero for an excused absence for extracurricular activity is both contrary to the intent of the Faculty Senate’s policy, and an infringement on the student’s right to complete all work and fairly earn her or his grade in the course.

This policy shall not apply in the event that completing the assignment or administering the examination at an alternate time would impose an undue hardship on the instructor or the university that could reasonably have been avoided. There should be a good faith effort by both faculty and student to come to a reasonable resolution. When disagreements regarding this policy do arise, they can be appealed to the department chair/unit director, college/school dean, and/or the Faculty Senate Academic Standards Committee.

For purposes of definition, extracurricular activities may include, but are not limited to: fine arts activities, competitive intercollegiate athletics, science and engineering competitions, liberal arts competitions, academic recruitment activities, and any other event or activity sanctioned by a college/school dean, and/or the Executive Vice President and Provost.

Transparency in Learning and Teaching—The University encourages students to use a transparency template to discuss with their instructors how assignments and course activities benefit student success: https://www.unlv.edu/sites/default/files/page_files/27/TILT-Framework-Students.pdf.

Tutoring and Coaching—The Academic Success Center (ASC) provides tutoring, academic success coaching and other academic assistance for all UNLV undergraduate students. For information regarding tutoring subjects, tutoring times, and other ASC programs and services, visit <http://www.unlv.edu/asc> or call 702-895-3177. The ASC building is located across from the Student Services Complex (SSC). Academic success coaching is located on the second floor of SSC A (ASC Coaching Spot). Drop-in tutoring is located on the second floor of the Lied Library and College of Engineering TBE second floor.

UNLV Writing Center—One-on-one or small group assistance with writing is available free of charge to UNLV students at the Writing Center, located in CDC-3-301. Although walk-in consultations are sometimes available, students with appointments will receive priority assistance. Appointments may be made in person or by calling 702-895-3908. The student's Rebel ID Card, a copy of the assignment (if <http://writingcenter.unlv.edu/>).