BusAdmin F735/V703
Financial Modeling
Winter 2022 Course Outline

Finance and Business Economics Area
DeGroote School of Business
McMaster University

COURSE OBJECTIVE

This course will examine the tools built into Excel and VBA and their use in financial modeling. A basic knowledge of Excel is assumed with no prior experience of VBA required.

The difference between financial modeling and a purpose-built spreadsheet, is that financial modeling is much more flexible and can be easily modified to solve a wide array of problems!

INSTRUCTOR AND CONTACT INFORMATION

CO1: Wed 19:00-22:00
Martin Butcher
Instructor
butchm1@mcmaster.ca

Tel: (905) 403-8286
Class Location: **RJC 236**

COURSE ELEMENTS

Credit Value:	3	Leadership:	Yes	IT skills:	Yes	Global view:	Yes
A2L:	Yes	Ethics:	No	Numeracy:	Yes	Written skills:	Yes
Participation:	Yes	Innovation:	Yes	Group work:	Yes	Oral skills:	Yes
Evidence-based:	No	Experiential:	No	Final Exam:	No	Guest speaker(s):	No

COURSE DESCRIPTION

This course introduces the basics of financial modeling. It is offered as a second-year course and requires an understanding of finance and a basic knowledge of MS Excel. We build on this knowledge to develop a more complete understanding of what makes for a good financial model and how to go about building one.

LEARNING OUTCOMES

Upon successful completion of this course, students will be able to complete the following key tasks:

  ➢ Design and layout a financial model.
  ➢ Decide on which variables are independent and how to vary them.
  ➢ Become familiar enough with MS Excel and Visual Basic, to be viewed as the "resident expert" in many situations.

COURSE MATERIALS AND READINGS

Course Materials are available on Avenue To Learn

Textbooks:

Benninga; Financial Modeling; Fourth Edition; The MIT Press, 2014. ISBN: 978-0262027281. Comprehensive finance-focused text, also useful in other finance courses

COURSE OVERVIEW AND ASSESSMENT

Individual learning in this course results from model building, problem solving, and lab work. The team learning focus of this course is on two assignments and an applied group project centred upon a financial model.

Your final grade will be calculated as follows:

Engagement	10%
Test 1: (Week 5)	20%
Assignment 1: (Week 8)	10%
Assignment 2: (Week 12)	10%
Test 2: (Week 13)	20%
Group Project (Week 13)	30%
Total	**100%**

COURSE DELIVERABLES

Engagement (10%)
10 engagement questions, each worth 1% of the final grade.

The engagement questions will be completed individually, and are a precaution against Covid-19 related extended on-line lecturing.

Term Tests (40%)
Two open-book, open-notes tests, each worth 20% of the final grade.

A student missing a Term Test is required to contact the *Student Experience – Academic Office* and obtain an official approval of relief if he/she wishes to avoid a zero (0) grade for the test. Should the *Student Experience – Academic Office* grant a relief, the student will be able to write an alternate exam in lieu of the missed test during the final exam period at the end of term.

Assignments (20%)
Two Spreadsheet Assignments, each worth 10% of the final grade.

The Spreadsheet Assignments will be completed in groups, submitted on-line, and will focus on the concepts introduced in the course. Each person in the group will receive the same grade for the Spreadsheet Assignment.

Group Project (30%)
The Group project will entail building and documenting a real-life financial model using the concepts covered in the course.

COURSES WITH AN ONLINE ELEMENT

Students should be aware that, when they access the electronic components of a course, private information such as first and last names, usernames for the McMaster e-mail accounts, and program affiliation may become apparent to all other students in the same course.

The available information is dependent on the technology used. Continuation in a course that uses on-line elements will be deemed consent to this disclosure. If you have any questions or concerns about such disclosure, please discuss this with the course instructor.

CONDUCT EXPECTATIONS

As a McMaster student, you have the right to experience, and the responsibility to demonstrate, respectful and dignified interactions within all of our living, learning and working communities. These expectations are described in the *[Code of Student Rights & Responsibilities](the "Code")*. All students share the responsibility of maintaining a positive environment for the academic and personal growth of all McMaster community members, **whether in person or online**.

It is essential that students be mindful of their interactions online, as the Code remains in effect in virtual learning environments. The Code applies to any interactions that adversely affect, disrupt, or interfere with reasonable participation in university activities. Student disruptions or behavior's that interfere with university functions on online platforms (e.g., use of Avenue 2 Learn, WebEx or Zoom for delivery), will be taken very seriously and will be investigated. Outcomes may include restriction or removal of the involved students' access to these platforms.

EXTREME CIRCUMSTANCES

The instructor and university reserve the right to modify elements of the course during the term. The university may change the dates and deadlines for any or all courses in extreme circumstances (e.g., severe weather, labor disruptions, etc.). Changes will be communicated through regular McMaster communication channels, such as McMaster Daily News, A2L and/or McMaster email.

COPYRIGHT AND RECORDING

Students are advised that lectures, demonstrations, performances, and any other course material provided by an instructor include copyright protected works. The Copyright Act and copyright law protect every original literary, dramatic, musical, and artistic work, **including lectures** by university instructors.

The recording of lectures, tutorials, or other methods of instruction may occur during a course. Recording may be done by either the instructor for the purpose of authorized distribution, or by a student for the purpose of personal study. Students should be aware that their voice and/or image may be recorded by others during the class. Please speak with the instructor if this is a concern for you.

COMMUNICATION AND FEEDBACK

Students who wish to correspond with instructors or classmates directly via email, must send messages that originate from their official McMaster University email account. This protects the confidentiality and sensitivity of information as well as confirms the identity of the student. Emails regarding course issues should NOT be sent to the Area Administrative Assistants.

ACADEMIC DISHONESTY

You are expected to exhibit honesty and use ethical behavior in all aspects of the learning process. Academic credentials you earn are rooted in principles of honesty and academic integrity. **It is your responsibility to understand what constitutes academic dishonesty.**

Academic dishonesty is to knowingly act or fail to act in a way that results or could result in unearned academic credit or advantage. This behavior can result in serious consequences, e.g., the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: "Grade of F assigned for academic dishonesty"), and/or suspension or expulsion from the university.

For information on the various types of academic dishonesty please refer to the *Academic Integrity Policy,* located at https://secretariat.mcmaster.ca/university-policies-procedures-guidelines/

The following illustrates only three forms of academic dishonesty:
- plagiarism, e.g., the submission of work that is not one's own or for which other credit has been obtained.
- improper collaboration in group work.
- copying or using unauthorized aids in tests and examinations.

STUDENT ACCESSIBILITY SERVICES

Students with disabilities who require academic accommodation must contact Student Accessibility Services (SAS) at 905-525-9140 ext. 28652 or sas@mcmaster.ca to make arrangements with a Program Coordinator. For further information, consult McMaster University's *Academic Accommodation of Students with Disabilities* policy.

ACADEMIC ACCOMMODATION FOR RELIGIOUS, INDIGENOUS OR SPIRITUAL OBSERVANCES (RISO)

Students requiring academic accommodation based on religious, indigenous or spiritual observances should follow the procedures set out in the RISO policy. Students should submit their request to their Faculty Office *normally within 10 working days* of the beginning of term in which they anticipate a need for accommodation or to the Registrar's Office prior to their examinations. Students should also contact their instructors as soon as possible to make alternative arrangements for classes, assignments, and tests.

RESEARCH DATA

Any research data obtained by a student from publicly available sources for the purposes of completing teamwork are the joint property of the student, the instructor, and the university. All parties are free to use the research data subject to the original copyright of such data.

Students agree not to use any propriety data or data subject to copyright protection without the prior written approvals of the instructor and owner of any such copyright.

ACKNOWLEDGEMENT OF COURSE POLICIES

Your enrolment in this course will be an implicit acknowledgement of the course policies outlined above, or of any other that may be announced during lecture and/or on A2L. **It is your responsibility to read this course outline, to familiarize yourself with the course policies and to act accordingly.**

Lack of awareness of the course policies **cannot be invoked** at any point during this course for failure to meet them. It is your responsibility to ask for clarification on any policies that you do not understand.

COURSE SCHEDULE

BusAdmin F735/V703 - Financial Modeling
Winter 2022 Course Schedule

Meeting	Week of	Topics	Excel
1	Jan 12	*Introduction* Ch 1: Basic Financial Calculations	
2	Jan 19	*Financial Statement Modelling I* Ch 2: Corporate Valuation Overview Ch 3: Calculating the WACC	Forecasting financial statements using spreadsheets.
3	Jan 26	*Financial Statement Modeling II* Ch 4: Valuation, Statement of Cashflows Ch 5: Pro Forma Statement Modeling.	Integrating financial statement worksheets.
4	Feb 02	*Financial Statement Modelling III* Ch 6: Pro Forma Model - Caterpillar	Financial statement modules, completing valuations
5	Feb 09	**TEST 1**	
6	Feb 16	*Portfolio Modelling* Ch 8: Portfolio Models Ch 11: Estimating Beta, and the SML	Investment portfolios, beta, variances, performance management
7	Feb-23	**MID-TERM RECESS**	
8	Mar 02	*Excel Techniques* Ch 31: Data Tables Ch 33: Excel Functions Ch 35: Some Excel Hints	*Assignment One Due*
9	Mar 09	*VBA I* Ch 36: User-Defined Functions	Intro to VBA/programming
10	Mar 16	*VBA II* Ch 37: Variables and Arrays Ch 38: Subroutines and User Interaction	Working with custom functions
11	Mar 23	*VBA III* Ch 39: Objects and Add-Ins	Additional programming
12	Mar 30	*Fintech Integration*	*Assignment Two Due*
13	Apr 06	**TEST 2**	*Group Project Due*