



Carnegie Mellon University
Heinz College of Information Systems and Public Policy
School of Information Systems and Management

95716K4/L4: PRINCIPLES OF FINANCE

Course Information for Spring/January 2021 Semester

Introduction

To work at multinational corporations, like Apple, Facebook, or Google; consulting firms, like Deloitte or EY, or to start your own business, the knowledge and skills of managerial accounting and finance will help you to become a competent business analyst, consultant, entrepreneur, or project manager. This course covers key managerial accounting & finance concepts and analytical techniques, which are essential for business decision-makers. Among the key concepts and analytical tools are Activity-Based Costing, breakeven analysis, zero-based budgeting, investment evaluation technique, performance measurement system, variance analysis, and internal control system.

Prerequisites

You have passed the 95715 Financial Accounting, or equivalent course. Note that any accounting and finance courses taken at undergraduate level would not be deemed equivalent to this postgraduate level course.

Learning Objectives

After completed this course, you should be able to (a) explain clearly the concepts and techniques of managerial accounting and finance; (b) develop and sharpen analytic abilities in cost analysis, financial budgeting, investment evaluation, and internal control analysis; and (c) Use managerial accounting and finance analytical outputs in making important corporate decisions with sound justifications.

Course Structure

This course focuses on analyzing the costs, budget, investment proposals, and internal control and governance of corporations.

The key topics include managerial accounting concepts, corporate finance principles, key components of cost analysis, apply breakeven analysis, implement an Activity-based Costing system, preparation of a master budget, conduct sensitivity analysis, conduct investment evaluation, variance analysis, and internal control systems, as well as applying practical tools to analyze and evaluate financial performance.

Schedule* and Outline of Course (Deliveries are based on Adelaide time)

Week One: Mon 22-Mar and Wed 24-Mar

L1 on 22-Mar:	Cost Concepts, Systems, and Report
L2 on 24-Mar:	Cost Allocation issues & Activity-Based-Costing
R1 on 27-Mar:	Review 1 & TA Consultation session: Saturday 15.30 to 18.00 (Adelaide time)
Reference:	Ch 1, 2, 3, 4 <i>Managerial Accounting – Tools for Business Decision Making 7e</i> Kimmel, et. al. Wiley

Week Two: Mon 29-Mar and Wed 31-Mar

L3 on 29-Mar:	Activity-Based-Costing – Applications
L4 on 31-Mar:	Cost-Volume-Profit Analysis and Cost-Plus Pricing
L5 on 01-Apr:	Budgeting Techniques
R2 on 03-Apr:	Review 2 & TA Consultation session: Saturday 15.30 to 18.00
Reference:	Ch 4, 5, 6, 8, 9 of Kimmel 7e

Week Three: Mon 05-Apr* and Wed 7-Apr [Note: 5-Apr (Mon) is Easter Monday holiday.]

L5 on 05-Apr:	No class.
L6 on 07 Apr:	Master budgeting – Application [Replacement class to be discussed in class]
R3 on 10-Apr:	Review 3 and Consultation session on Assignment 1 this week.
Reference:	Ch 9 & Appendix A of Kimmel 7e

Week Four: Mon 12-Apr* and Wed 14-Apr

L7 on 12-Apr:	Mid-Point Exam [Due to time conflict, new exam date to be discussed in class]
L8 on 14-Apr:	Time Value of Money, Financial Mathematics & Revision for Exam
R4 on 17-Apr:	Review 4 & TA Consultation session.
Reference:	Appendix A of Kimmel; Ch 4 of <i>Corporate Finance</i> by Ross et al.
Due time:	Upload Assignment 1 to Canvas on Sat 17-Apr by 22.00 (Adelaide). ‘Early-bird’ submission incentive will be granted**.

Week Five: Mon 19-Apr and Wed 21-Apr

L9 on 19-Apr	Investment/Project Evaluation Techniques
L10 on 21-Apr	Case study Analysis
R5 on 24-Apr:	Review 5 & consultation session: Saturday 15.30 to 18.00
Reference:	Ch 12 Kimmel; Ch 4 and 6 of <i>Corporate Finance</i> by Ross et al.

Week Six: 26-Apr and 28-Apr

L11 on 26-Apr	Management Control System & Balanced Scorecard System
L12 on 28-Apr	Variance Analysis, Internal Control System and Revision for Exam
R6 on 01-May:	Review 6 & consultation session: Saturday 15.30 to 18.00
Reference:	Ch 10-11 Kimmel
Due time:	Upload Assignment 2 to Canvas on Wed 01-May by 22.00 (Adelaide). ‘Early-bird’ submission incentive will be granted.

Week Seven: Monday 3-May*

On 03-May	Online <u>Final Exam</u> from 15:00 to 17:00 (to be confirmed)
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*The above schedule is tentative and subject to changes, if necessary

**Attendance of Review and TA consultation sessions are not compulsory, but highly recommended.

*** ‘Early-bird’ incentives for submissions that are 48-hours before the due time.

Course Instructor and Contact Details

Mail to: Dr. T. K. Lim, Ph.D., FCMA, GCHE
Teaching Professor of Finance and Economics
Carnegie Mellon University
220 Victoria Square, Adelaide SA 5000 Australia

Office Tel: 61-08-81109912

E-mail: tklim@andrew.cmu.edu

Consultation hours: Mon-Wed 1430 – 1530 and 18:50 to 17:50. Other time by appointment.

Teaching Assistants (TA) & Consultation Sessions:

For 95716-K4 Session:

Mr Vinaya Sai Davuluri <vdavulur@alumni.cmu.edu>

Two weekly individual consultation sessions:

Session 1: Saturday from 17.00 to 18.00 (Adelaide time)

Session 2: flexible mode via zoom. Please contact or make appointment with TA.

For 95716-L4 Session:

Jenny Liu: zelinl@andrew.cmu.edu

Two weekly Individual consultation sessions:

Session 1: Saturday from 17.00 to 18.00 (Adelaide time)

Session 2: flexible mode via zoom. Please contact or make appointment with TA.

TA Review Sessions:

Saturday from 15.30 to 17.00 (Adelaide time)

Note: attendance is not compulsory, but highly recommended.

Reference Textbooks:

“Managerial Accounting – Tools for Business Decision Making” 7th edition, Paul J. Kimmel, Jerry D. Weygandt, and Donald E. Kieso, 2015, John Wiley & Sons, Inc.

ISBN – 13: 978-1-118-33433-1. Order hardcopy or e-book version from www.wiley.com

“Corporate Finance” 7e, Ross, Westerfield, and Jaffe, 2005, McGraw-Hill Irwin

“Fundamentals of Financial Management” (2009), 12e Eugene F. Brigham and Joel F. Houston, South-Western Cengage Learning

“Modern Financial Management” (2007), 8e, Ross, Westerfield, Jaffe, and Jordan, McGraw-Hill Irwin

Note: it is often adequate to prepare for exams if you read and understand the lectures and reviews notes.

Lecture Notes and Class Conduct:

Weekly lecture notes in power point file are posted on the Canvas. Other reading materials may be distributed during the class sessions. All Zoom lecture video should be available on web-site after the class delivery. Note: IT staff will post the video on Canvas promptly, but occasionally it may take a bit longer to upload the video due to technical issue.

Calculator:

It is recommended to have a financial calculator that can do time value of money calculations. The recommended brand is Sharp EL-738. If you buy another brand of financial calculator, make sure you know how to operate it.

Course Assessment:

There are **TWO** major assessments for this course, which include two assignments and two online examinations. You should participate all online lectures as some in-class works will allow participants to earn some bonus marks.

After obtaining your marks for assignments, exams, or the final grade, you may request a formal second review of the result via sending an e-mail to the instructor. However, the new and final result may vary depends on the outcome of the second assessment.

Please be informed that **any late submission** of your work will not be counted, unless you have obtained prior approval from the instructor.

Under certain circumstances, you may request to sit the exam separately from the class. Normally, you need a medical certificate or other relevant documents. Work-related reasons will not be considered. However, even though your request is approved, please note that the questions and problems for this supplementary exam will be different from those in the scheduled class exam.

A summary of the 4 assessments is shown below:

Assessment 1: Costing and Master Budget of an assigned ‘business idea or project [25 marks].

This is a ‘personalized 2-person team assignment’. You and your team member will conduct an activity-based costing and a zero-based master budget for a unique ‘business idea’ or ‘a self-sustaining project’. Every team must pick an idea or a project that is different from others and received approval by the instructor. After you have completed your cost analysis and master budget as per requirements, you will upload a power-point file and an excel data file which contains your costing, and master budget to Canvas on Sat **17-Apr-2021** by 22.00 (Adelaide time). A Step-by-step Guide and PPT templates will be provided. If you have any questions, please contact the instructor and/or TA.

Assessment 2: Project Evaluation and Performance Measurement System [15 marks].

There are two parts. The first part is based on the master budget prepared in Assessment 1, your team will perform investment appraisal using the common appraisal rules. You can apply the PB, NPV, IRR, ARR and PI rules. In conclusion, you will provide justifications and explanations on the feasibility of the ‘business’ or ‘project’. In the second part, you will design a balanced scorecard system for the unique business. After you have completed your investment evaluation and the design of a balanced scorecard as per requirements, you will need to upload a power-point file and an excel data file which contains your finding and the balanced scorecard to Canvas on Wed **01-May-2021** by 22.00 (Adelaide time). A Step-by-step Guide and PPT templates will be provided. If you have any questions, please contact the instructor and/or TA.

Assessment 3: Mid-Point Examination (30 marks).

The duration for Mid-Point exam is 90-minutes with 30 minutes reading time. It consists 10 multiple-choice questions (10 marks), 3 short-answer questions (5 marks), and 3 quantitative questions [15 marks]. The exam covers all topics discussed in class. Please bring a financial calculator.

Assessment 4: Final Examination (30 marks).

The duration for Final exam is 90-minutes with 30 minutes reading time. It consists 10 multiple-choice questions (10 marks), 3 short-answer questions (5 marks), and 3 quantitative questions [15 marks]. The exam covers all topics discussed in class. Please bring a financial calculator.

Table below shows the distribution of marks: Note: 1500 means 3.00pm (Adelaide time)

Components	Scores	Due date & time	Estimated Feedback on
Assignment 1	25 marks	17-Apr-2021:2200	21-Apr-2021
Assignment 2	15 marks	01-May-2021:2200	On-request
Mid-Point Exam	30 marks	To be confirmed	21-Apr-2021
Final Exam	30 marks	03-May-2021:1500-1700	On-request
<u>Total score:</u>	<u>100 marks</u>		

Guideline for Grading Scale and Score Range:

Grade	Description	Points	Score Range (in marks)
A+	Exceptional	4.33	97 to 100.00
A	Excellent	4.00	93 to 96.99
A-	Very Good	3.67	90 to 92.99
B+	Good	3.33	86 to 89.99
B	Acceptable	3.00	80 to 85.99
B-	Fair	2.67	76 to 79.99
C+	Poor	2.33	70 to 75.99
C	Very Poor	2.00	66 to 69.99
C-	Minimal Passing	1.67	60 to 65.99
R	Fail	0.00	0 to 59.99

Please note that there is no rounding up of your marks. The following descriptive statements are guidelines used to grade your assessment components:

- **Grade A+** (Exceptional) Extraordinary piece of work for a graduate student. Work at this level is distinctively outstanding, ultra high level of critical thinking, innovative ideas, crystal clear yet precise explanations with solid justifications and references, very sophisticated methodologies with professional level of writing and communication skills. Work is extraordinary; attain the highest academic and professional quality.
- **Grade A** (Excellent) Excellent work of a graduate student. Work at this level is unusually thorough, very high-level of critical thinking, innovative, superior explanations/justifications; sophisticated methodologies, well written and superb presentation. Work is of outstanding, professional quality.

- **Grade A-** (Very Good) Strong work for a graduate student. Work at this level shows high-level of critical thinking, some signs of creativity, is thorough and well-reasoned, good presentation, indicates strong understanding of appropriate methodological or analytical approaches, and meet the professional standard.
- **Grade B+** (Good) Competent and sound work for a graduate student; well reasoned and thorough, good presentation, reasonable level of critical thinking, methodologically sound, but not especially creative or insightful or technically sophisticated. This is the graduate student grade that indicates the student has accomplished the objectives of the course, with acceptable professional standard.
- **Grade B** (Acceptable) Fair work for a graduate student. Moderately thorough, some level of critical thinking, well reasoned, demonstrating competency in the key course objectives but showing some indications that understanding of some key issues is less than complete. Methodologically or analytical approaches used are adequate but student has shown one or more weaknesses or limitations.
- **Grade B-** (Fair) Basic work for a graduate student. Meets the basic expectations for a graduate student in the course; low level of critical thinking, understanding of salient issues is somewhat incomplete, methodological or analytical work performed in the course is basic, although adequate.
- **Grade C+** (Poor) Inadequate work for a graduate student; barely meets the basic expectations for a graduate student in the course. Work is inadequately developed or flawed by some errors and misunderstanding of important issues. Methodological or analytical work performed is deficient and barely demonstrates the knowledge or technical competence expected of graduate students.
- **Grade C** (Very Poor) Weak work for a graduate student; hardly meet the basic expectations for a graduate student in the course. Work is very poorly developed or flawed by numerous errors and lack of understanding of important issues. Methodological or analytical work performed is very weak and fails to demonstrate the knowledge or technical competence expected of graduate students.
- **Grade C-** (Minimal Passing) Very weak work for a graduate student; hardly meet the minimal expectations for a graduate student in the course. Work is carelessly developed or full of errors and missing the important issues. Methodological or analytical work performed is mostly wrong and fails to demonstrate the knowledge or technical competence expected of graduate students.
- **Grade R** (Fail) Work fails to meet even minimal expectations for course credit for a graduate student. Performance has been consistently weak in methodology and understanding, with serious limits in many areas. Weaknesses or limits are pervasive.
- **Grade I** (Incomplete)

Academic Integrity

The Heinz College takes very seriously its mission to produce graduates who are committed to ethical behavior in all phases of their professional lives. In this regard, the college views any cheating and plagiarism as serious offences. You are required to review thoroughly the material on academic integrity presented in master's program handbooks at: (<https://www.australia.cmu.edu/student-experience/current-students>) and to monitor your own actions carefully to prevent even the appearance of violations of academic integrity guidelines. Any violations of academic integrity in this class will have the following consequences: (a) zero mark for assignments or exams; and (b) in more serious offences, failing the class.

You are, however, allowed to form small study groups to “brain-storm” on assignments and case studies. Group collaboration is defined as “group discussions or brain-storming on the issues of an assignment or a case, followed by submission of independent work”. It is wrong for you to submit an assignment in which one or more answers represent the work of other classmates.

Course Web Page

This course has set up the following URL: <http://cmu.edu/canvas> which represents an entrance point to an integrated course management system called Canvas.

All students who are registered for 95-716 may login using their Andrew ID and passwords. After login, you will enter a Canvas “homepage” with links to all CMU courses (such as this one) that have developed custom Web pages using Canvas LMS technology. Click on “95716-Principles of Finance”, and you will be transferred to a Canvas web site for this course.

The site allows you to access a number of resources, including:

- Course syllabus
- Lecture notes in power point file
- Course updates and announcements
- Threaded discussion sections for all course-related issues
- Links to other Internet resources

You should form a habit to check the course web page at least twice a week to stay current with course issues. Please use the on-line help to familiarize yourself with Canvas features.

Accommodations for Students with Disabilities:

If you have a disability and are registered with the Office of Disability Resources, I encourage you to use their online system to notify me of your accommodations and discuss your needs with me as early in the semester as possible. I will work with you to ensure that accommodations are provided as appropriate. If you suspect that you may have a disability and would benefit from accommodations but are not yet registered with the Office of Disability Resources, I encourage you to contact them at access@andrew.cmu.edu.

Statement of Support for Students' Health & Well-being

Please take good care of yourself. Do your best to maintain a healthy lifestyle this semester by eating well, exercising, avoiding drugs and alcohol, getting enough sleep and taking some time to relax. This will help you achieve your goals and cope with stress.

If you or anyone you know experiences any academic stress, difficult life events, or feelings like anxiety or depression, we strongly encourage you to seek advice and support from professional Counseling and Psychological Services (CaPS). You are strongly encouraged to make private appointment with the Director of Program or Academic Advisor to seek help and also visit <http://www.cmu.edu/counseling/>. You may also consider reaching out to a friend, faculty or family member you trust for help getting connected to the support that can help.

Zoom ID for 95716 Classes

95-716 K4

Principles of Finance

Monday 3:30pm - 4:50pm

Wednesday 3:30pm - 4:50pm

Zoom ID 8349752415

Zoom Link <https://australia-cmu-edu.zoom.us/j/8349752415>

Panopto Recording

Link <https://cast.australia.cmu.edu/Panopto/Pages/Sessions/List.aspx#folderID=%22e3d5512b-6f11-46b7-911a-acb70034462d%22>

95-716 L4

Principles of Finance

Monday 5:30pm - 6:50pm

Wednesday 5:30pm - 6:50pm

Zoom ID 4821338640

Zoom Link <https://australia-cmu-edu.zoom.us/j/4821338640>

Panopto Recording

Link <https://cast.australia.cmu.edu/Panopto/Pages/Sessions/List.aspx#folderID=%22d4ad2cf9-260d-4078-a103-acb700344ba0%22>