

SLOAN SCHOOL OF MANAGEMENT  
MASSACHUSETTS INSTITUTE OF TECHNOLOGY



**15.418 Corporate Finance**

Lecture: Monday & Wednesday 10:00-11:30 am (E51-345) or 1:00-2:30 pm (E62-262)

Lab Session: Friday 2:30-4:00 pm (E52-164)

Prof. Christopher Palmer (E62-639, [cjpalmer@mit.edu](mailto:cjpalmer@mit.edu))

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**Prerequisites:** Finance Theory I (15.401/417) and Accounting (15.515/501).

Corporate Finance is an introduction to basic principles and decision-making tools for corporate financial management. It covers investment decisions, financing decisions and the management of cash flows. Specific topics include capital budgeting, valuation, and the cost of capital, working capital management, security issues, dividend policy, optimal capital structure, and real options. The Monday-Wednesday classes mostly use case studies to introduce and apply finance to these topics. Friday classes put teams of students to work on more extensive applied valuation projects.

Friday classes teach how to work with financial spreadsheets, databases and statistical methods used in applied corporate finance. These sessions also cover valuation practice, including estimation of the cost of capital, at a deeper and more detailed level. Student teams will prepare two reports, one valuing investment in an oil field and one analyzing a potential merger. There will be extensive instruction and practice in communication, including written reports and oral presentations.

15.418 is a 15-unit undergraduate subject. It is approved as an Institute Laboratory subject and as a CI-M subject for Course 15 students.

Monday-Wednesday classes meet with section A or B of 15.402, Corporate Finance.

**Grading**

The final grade will be a weighted average of performance in the following categories:

- 10%** Class participation in Monday-Wednesday classes
- 15%** Case write-ups for Monday-Wednesday classes
- 50%** Team projects – 25% content and 25% communication
- 25%** Midterm (10%) and Final (15%) exams

### **Class Procedures and Case Memoranda (Monday-Wednesday Classes)**

For each case, we will assign case questions and you will have to submit a two-page memorandum with your proposed answers to these questions. You are encouraged to meet in groups outside of class to discuss and analyze the cases. If you choose to do so, the group cannot be larger than four students. We will accept one memorandum from the group and count it for all students in the group. Each group member must make a substantial contribution to each part of the assignment. It is not acceptable to divide the cases amongst the team members. Since the class is very cumulative, this would be self-defeating anyway, and you'd suffer on the exam.

The rules for writing memoranda are as follows:

- Each memorandum should be typed and not exceed two pages.
- Two-page limit is for text only; you may attach as many numerical calculations as you wish.
- Write and format these formally as if you were writing a recommendation to a CEO (or other major decision maker).
- The memoranda are due before the morning class on the assigned due date.

Because of the nature of this course (and the grading criteria, see below), it is extremely important that you attend every class, arrive on time and be prepared to participate.

You should bring your name tag to each class, to facilitate the discussion and receive appropriate credit for your remarks.

A mutually supportive learning environment depends on active attention and engagement. For this reason, the use of laptops, tablets, and phones is not allowed during classroom sessions. While some students like to use them for note-taking or other pursuits, the value of legitimate use of laptops and mobile devices is far outweighed by the distraction that they create for their classmates and the overall deleterious effect on the learning environment.

### **Projects**

The Friday lab sessions are designed to prepare and assist student teams (4-5 students per team) working on two realistic and challenging projects. The first is the Yellow Moon case, which requires an expert valuation of investment in an offshore oil field. Each student team will have to master and modify the project spreadsheet, choose a long-term forecast for oil prices, estimate the

cost of capital and value the project. The deliverable is a valuation report that makes and argues for a recommendation to a senior decision-maker. The report should be approximately 10 pages plus tables and figures.

The second project is an “M&A” analysis and valuation of a potential merger or acquisition. Each team chooses a pair of public companies that could be worth more together than apart. The second project has three deliverables: a written report (about 20 pages plus tables and figures), a slide presentation, and an oral presentation in class. The document and the oral presentation materials should make and argue for a recommendation as to whether the proposed combination would be accretive.

### **Project Grading**

Each project will be graded twice, once for financial analysis and once for communication

The quality and completeness of each team’s financial analysis will account for 25% of your grade: 12.5% for Yellow Moon and 12.5% for the second team project.

The clarity, logical argumentation, and effectiveness of communication in the written reports and the slides and oral presentations will account for 25% of your grade, calculated as follows,

- Written reports: 5% for Yellow Moon and 6% for the second M&A project (team grades).
- Oral presentation: 6% (individual grades).
- Teamwork: 8%: 5% based on peer grades using 5000 Points tool (see handout on Canvas) and 3% based on thoughtfulness of team feedback homework

### **Course Policies**

The course policies are designed to ensure fairness. By remaining enrolled in the course, you agree to abide by the policies detailed below. See the 15.402 syllabus for further policies.

- **Using AI is prohibited.** The use of AI software or apps to write or paraphrase text for your assignments is not allowed.
- **The midterm and final exams cannot be rescheduled or made up.** Treat the exam dates as you would an important meeting in the business world. Travel is not an acceptable reason for exam rescheduling. Documented evidence that you were seriously ill or had a serious emergency at the scheduled time of the final exam are the only valid excuses for missing an exam. In order to be excused from the exam, you must contact me *prior to the exam* and be ready to provide documentation after the exam.
- **Re-grades.** The TAs and instructor will work hard to ensure that the same partial credit is allocated to the same partially correct answer on each exam. Occasionally, we will make mistakes in our grading, and we are eager to correct mistakes subject to the following limits. If you believe that there was a mistake in the grading of your exam, *within one week* following

the return of the exam, submit the original exam and a separate *written explanation* of the points of contention to me. If the re-grade request is made after one week or without an accompanying written explanation, no re-grade will be given. All re-grade decisions are final. We reserve the right to correct all mistakes made grading an exam submitted for a re-grade.

- **Special Arrangements.** If you have a documented disability and anticipate the need for accommodations in this course, please make arrangements as soon as possible. Please contact the MIT Coordinator of Disabilities Services to request assistance in arranging appropriate accommodations with me.

### **Course materials**

- Course packet (required):
  - Contains the case studies, and some supplementary readings for the course.
  - You can purchase the course packet at <http://www.study.net/mit>.
- Course website:
  - Canvas: <https://canvas.mit.edu>
  - Make sure you have access to Canvas (contact the course assistant if you are unable to access Canvas).
  - Check Canvas at least once/week. All course announcements will be posted there.
- Textbooks (optional):
  - P. Asquith, L.A. Weiss, Lessons in Corporate Finance, any edition, Wiley.
  - R. Brealey, S.C. Myers, and F. Allen, Principles of Corporate Finance, any edition, McGraw-Hill.
  - Higgins, Analysis for Financial Management, any edition, Irwin, McGraw-Hill.
- Additional material:
  - Handouts (slides) will be posted on Canvas and/or provided at the beginning of class. Some of these slides contain gaps which we will fill out together in class.

Additional reading material, including assignments and background material for the team projects, will be posted on Canvas.

### **Administrative Assistants**

Larissa Walker, ([lwalker3@mit.edu](mailto:lwalker3@mit.edu))

### **Teaching Assistants for Friday lab sessions**

Katie Sessa ([ksessa@mit.edu](mailto:ksessa@mit.edu); office hours by appointment)

Juan Londono ([duvanju2@mit.edu](mailto:duvanju2@mit.edu); office hours by appointment)

### **Teaching Assistants for Monday-Wednesday sessions**

Section A: Sarah Harmon ([sharmon@mit.edu](mailto:sharmon@mit.edu); office hours by appointment)

Section B: Yaphet Tedla ([yaphet7@mit.edu](mailto:yaphet7@mit.edu); office hours by appointment)

## COURSE OUTLINE

The course outline is subject to changes. Please follow announcements in class and on Canvas.

| Class # | Day       | Date    | Topic  |
|---------|-----------|---------|--|
| 1       | Wednesday | 6-Sept  | Introduction and Accounting Review   |
| Lab     | Friday    | 8-Sept  | Introduction and overview of the lab sessions  |
| 2       | Monday    | 11-Sept | Case Study: Gilbert Lumber Company (Part I)  |
| 3       | Wednesday | 13-Sept | Case Study: Gilbert Lumber Company (Part II)   |
| Lab     | Friday    | 15-Sept | Lab Lecture 1, WRAP introduction to teamwork<br>Library Intro to Capital IQ              |
| 4       | Monday    | 18-Sept | Case Study: Play Time Toys   |
| 5       | Wednesday | 20-Sept | Case Study: SureCut Shears   |
| Lab     | Friday    | 22-Sept | <i>Student Holiday – No Class</i>  |
| 6       | Monday    | 25-Sept | Lecture: Capital Structure (Part I)  |
| 7       | Wednesday | 27-Sept | Case Study: Massey Ferguson  |
| Lab     | Friday    | 29-Sept | WRAP presentation on collaborative writing of Yellow Moon and similar reports            |
| 8       | Monday    | 2-Oct   | Lecture: Capital Structure (Part II)   |
| 9       | Wednesday | 4-Oct   | Case Study: Marriott   |
| Lab     | Friday    | 6-Oct   | Lab Lecture 1 (continued)  |
|         | Monday    | 9-Oct   | <i>Indigenous People's Day – No Class</i>  |
| 10      | Wednesday | 11-Oct  | Lecture: Asymmetric Information and Agency Costs   |
| Lab     | Friday    | 13-Oct  | Teams workshop Yellow Moon reports in class  |
| 11      | Monday    | 16-Oct  | Case Study: Intel  |
| 12      | Wednesday | 18-Oct  | Lecture: Corporate Governance and Corporate Diversity                                    |
| Lab     | Friday    | 20-Oct  | Lab Lecture 2 on M&A analysis and DCF models for valuing companies                       |
|         | Monday    | 23-Oct  | <i>Sloan Innovation Period – No Class</i>  |
|         | Wednesday | 25-Oct  | <i>Sloan Innovation Period – No Class</i>  |
| Lab     | Friday    | 27-Oct  | <i>Sloan Innovation Period – No Class</i>  |
| 13      | Monday    | 30-Oct  | Lecture: Valuation of Free Cash Flows  |
| 14      | Wednesday | 1-Nov   | Case Study: Diamond Chemicals  |
| Lab     | Friday    | 3-Nov   | M&A projects identified by student teams<br>WRAP review of effective presentation basics |
| 15      | Monday    | 6-Nov   | Lecture: WACC  |
| 16      | Wednesday | 8-Nov   | Case Study: Harris Seafoods (Part I)   |

|     |           |        |  |
|-----|-----------|--------|--|
| Lab | Friday    | 10-Nov | <i>Veteran's Day – No Class</i>  |
| 17  | Monday    | 13-Nov | Case Study: Harris Seafoods (Part II)  |
| 18  | Wednesday | 15-Nov | Case Study: Eaton Corporation  |
| Lab | Friday    | 17-Nov | Lab Lecture 2 completed. Fruit Imports mini-case   |
| 19  | Monday    | 20-Nov | Case Study: Arundel  |
|     | Wednesday | 22-Nov |  |
| Lab | Friday    | 24-Nov | <i>Thanksgiving Break – No Class</i>   |
| 20  | Monday    | 27-Nov | Lecture: Valuing a Company, APV, and Multiples   |
| 21  | Wednesday | 29-Nov | Case Study: Monmouth   |
| Lab | Friday    | 1-Dec  | WRAP workshop on oral presentations continued. TAs and instructor work with teams on M&A reports |
| 22  | Monday    | 4-Dec  | Case Study: Snap, Inc.   |
| 23  | Wednesday | 6-Dec  | Review for Final   |
| Lab | Friday    | 8-Dec  | Final M&A report and slides class reserved for oral presentations                                |
| 24  | Monday    | 11-Dec | TA Recitation: Practice Final Exam   |
| 25  | Wednesday | 13-Dec | Optional Q&A Session   |

## CLASS SCHEDULE FOR FRIDAY LAB SESSIONS

Friday, 2:30-4:00 p.m., E52-164

**Note the firm deadlines for draft and final team reports and the final oral presentation. These deadlines cannot be postponed without breaking MIT rules for end-of-semester assignments. Note also four required team meetings.**

Friday, Sept. 8:

Introduction and overview of the lab sessions.

Description of the Yellow Moon project.

Preview of requirements for Yellow Moon valuation.

Friday Sept. 15:

Lecture 1: Forecasting and discounting cash flows. Estimating the weighted average cost of capital (WACC), based on the capital asset pricing model. Estimating betas and market risk premium.

TAs review and explain cash-flow and data spreadsheets for Yellow Moon.

WRAP introduction to teamwork.

Library introduction to Capital IQ Database access.

**Student teams (4 or 5 students) should be formed and reported to TAs by Thursday, September 21.**

**No class** on Friday, Sept. 22 (Student Holiday)

Monday, Sept. 25 to Friday, Sept. 29.

**Team Meeting 1:** Teams meet to organize and set goals.

Friday, Sept. 29:

WRAP presentation on collaborative writing of Yellow Moon and similar reports.

Student teams are encouraged to meet with WRAP lecturers for guidance and feedback as they prepare Yellow Moon draft reports.

Friday, Oct. 6:

Lecture 1 continued.

Q&A on formulas and procedures needed for Yellow Moon analysis.

Friday, Oct. 13:

TAs, WRAP lecturers, and instructor work with teams in class on Yellow Moon reports.

Friday, Oct. 20:

**Draft Yellow Moon reports due before start of class on Canvas.**

Review of requirements for M&A projects.

Lecture 2 on M&A analysis and DCF models for valuing companies.

Monday, Oct. 23 to Friday, Oct. 27:

**Team Meeting 2:** Teams meet with instructor, TAs and WRAP instructors to go over draft reports.

**No class** on Friday, Oct. 27:

Teams may use class time to meet as teams alone or with TAs or WRAP instructors.

Monday, Oct. 30:

**Final Yellow Moon reports due on Canvas by 5:00 pm.**

Friday, Nov. 3:

**M&A project memo due before start of class.**

Each team should submit a brief memo identifying the two companies to be analyzed and listing potential synergies from combining them. Each team will have 5-10 minutes to explain its choice of companies.

WRAP review of presentation basics

**No class** on Friday, Nov. 10 (Veteran's Day)

Friday, Nov. 17:

Finish Lecture 2. Southland Case.



Monday, Nov. 20:

**Draft M&A Report due on Canvas by 5:00 pm**

Wednesday, Nov. 22 to Wednesday, Nov. 29:

**Team Meeting 3:** Teams meet with instructor, WRAP instructors and TAs for feedback on draft M&A reports.

**No class** on Friday, Nov. 24 (Thanksgiving Break)

Monday, Nov. 27 to Thursday, Nov. 30:

**Optional Team Meeting:** Teams are encouraged to meet with instructor, WRAP instructors, and TAs for feedback on draft slide presentations.

Friday, Dec. 1:

WRAP workshop on oral presentations continued.

Monday, Dec. 4:

**Draft slide presentations due on Canvas by 5:00 pm**

Wednesday, Dec. 6 to Thursday, Dec. 7:

**Team Meeting 4:** Dress rehearsals with WRAP staff for slide presentations.

Friday, Dec. 8:

**Final M&A report and presentation slides due at 2:00 pm.**

Class reserved for oral presentations.