

MATH 829-010

MWF 11:15–12:05, PUR 331 (lecture), PUR 117A (lab)

Web Page: <http://www.math.udel.edu/~edwards/download/m829/s14home.html>

(also referenced from QR code at end of document)

Introduction to Mathematical Finance

Spring 2014

Instructor: Prof. D. A. Edwards
EWG 511

Office Hours: T 9:30–10:30, R 1:30–2:30, or by appointment
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Introduction

Welcome to Introduction to Mathematical Finance! In this class we will use an integrated approach to learn both the theory and the practice of mathematical finance. The text for this course is *The Mathematics of Financial Derivatives: A Student Introduction*, by Wilmott, Howison, and Dewynne. In addition, I will also be lecturing from various other sources, so class attendance and participation is necessary for successful mastery of the material.

If you have any questions, contact me during my office hours or make an appointment. **Extra copies of handouts are available at the Web page listed above or referenced at the QR code at the end of the document.**

There will be no makeup classes for snow days unless mandated by the University.

Bloomberg Experience

In order for you to learn the practical side of mathematical finance, we will have many Friday classes in the Lerner Trading Center. The exact dates will be announced throughout the semester. While there, you will learn how to use a Bloomberg terminal to trade and price options. With the knowledge you gain during class meetings, you will be well on your way to completing the Bloomberg certification program. This is optional and the full completion must be done on your own time. More details will be provided at the first lab meeting.

Electronic Communication

The Web page for this course is listed on the top of the first page. There you will find copies of handouts available for downloading. Important announcements (corrections to typographical errors, etc.) will be handled by e-mail. Also at the URL

<http://www.math.udel.edu/~edwards/download/suggest.html>

you will find an anonymous suggestion box.

Assessment

There will be a take-home final exam for the course. It will count for 50% of your *raw score*. One-third of the raw score will come from the homeworks and one-sixth from the lab assignments. Then each of the raw scores will be scaled to determine final grades.

Homeworks and Labs

The most effective way to succeed in this course is to do all the assignments. I select the problems carefully to illustrate the most important topics in the course. Even if you are registered as a listener, I recommend doing the homework, and I will review it.

Homework will be distributed throughout the semester, with a due date announced at time of distribution. (The first homework assignment is attached to this sheet.) During each lab session, you will be given a lab assignment to complete. I expect that you will be able to gather all the necessary data during the class meeting, though you may need to perform some minimal analysis afterwards. However, if you are unable to gather the data or miss the class meeting, the lab is open many hours per week for individual study. Labs will be due the Wednesday after they are assigned.

ABSOLUTELY NO LATE ASSIGNMENTS WILL BE ACCEPTED! If you must miss a due date because of University business, it is your responsibility to make sure the homework gets to me *before* the due date. Since mathematics is a subject where the material for one section builds on the section before, it is critical that you keep up to date on the homework: hence the stringent policy. However, to calculate your semester-long assignment average, I will drop your two lowest homework scores and your two lowest lab scores. Therefore, low scores for assignments where you were pressed for time can be erased as long as you don't have too many of them.

Though you may not copy directly from another's paper or use someone else's ideas (including online aids) as your own¹, I encourage you to discuss assignments with your classmates. Any scientific endeavor is rarely done in a vacuum; therefore it is to your advantage to learn the benefits of collaborating. Model homework solutions will be posted on the Web after the assignment is due. Hopefully these will assist you in learning the material. Labs will be discussed in class as needed.

¹ For more details regarding academic dishonesty, see the Student Handbook (<http://www.udel.edu/stuguide/>).

Assignments should be folded like a book with the following information on the “front cover:”

Name
Math 829-010—Edwards
Homework/Lab Number
Date

You will turn in your assignments this way so that your grade may be written on the inside, thus ensuring your privacy. I will make every effort to ensure that your graded assignments are returned in a timely manner. The number of points assigned to each problem will be listed.

Tentative Schedule

Note: This is only a tentative schedule; there may be deviations from it.

week of February 10: Sections 1.1, 1.6, 1.7, 6.3

February 12: Homework 1 distributed

February 14: Lab 1

week of February 17: Sections 1.2–1.5

February 19: Homework 1 due; homework 2 distributed

February 21: Lab 2

week of February 24: Sections 2.1, 2.2

February 28: Lab 3

week of March 3: Sections 3.1, 3.2, 3.5

March 5: Homework 2 due; homework 3 distributed

week of March 10: Sections 3.3, 3.6, 3.7, 3.10, 5.4–5.6

March 14: Homework 3 due; homework 4 distributed

week of March 17: Section 3.9

March 21: Lab 4

week of March 24: Sections 3.3, 3.4, 6.2

March 24: Homework 4 due; homework 5 distributed

March 28: Lab 5

week of March 31: Spring Recess

week of April 7: Sections 6.2, 11.1–11.5

April 7: Homework 5 due; homework 6 distributed

April 11: Lab 6

week of April 14: Sections 7.1–7.6

April 16: Homework 6 due; homework 7 distributed

April 18: Lab 7

week of April 21: Sections 10.1–10.5

April 23: Homework 7 due; homework 8 distributed

April 25: Lab 8
week of April 28: Sections 17.1–17.3
week of May 5: Sections 17.4–17.6
 May 7: Homework 8 due; homework 9 distributed
 May 9: Lab 9
week of May 12: Section 17.9.1
 May 16: Lab 10
May 19: Formal review session
 May 19: Homework 9 due

Course Web Page:

