# Syllabus for GRA 6035 Mathematics

#### **Course Information**

| Course code  | GRA 6035   |  |
|--------------|------------|--|
| Course title | Mathematic | CS                                       |
| ECTS credits | 6          |  |
| Examination  | Midterm    | 20 % (1 hour individual multiple choice) |
|              | Final exam | 80 % (3 hours individual written exam)   |

### Instructor Information

| Instructor             | Eivind Eriksen            |
|------------------------|---------------------------|
| Office                 | B4-032                    |
| Office hours           | Wednesday 10.00 - $12.00$ |
| $\operatorname{Email}$ | Eivind.Eriksen@bi.no      |
| Home page              | home.bi.no/a0710194/      |

### Reading

 [ME] Simon, Blume, Mathematics for Economists International Student Edition, ISBN 978-0-393-11752-3
[WB] Eriksen, Digital Workbook for GRA 6035 Mathematics Available for download through It's Learning

# Lecture Notes

Lecture Notes for each lecture will be made available through It's Learning.

# Problems

The Digital Workbook [WB] will contain a set of problems (with solutions) for each lecture. It is part of the course requirements that you work out the problems, and some topics will only be treated in the exercise problems. In fact, the problems are perhaps the most important part of the course. Your final grade will depend mostly on your ability to work out problems. If you do not solve most of the exercise problems, do not expect to be able to solve the problems on the exam.

#### Prerequisites

We require the following to be known when you start GRA 6035 Mathematics:

- $1. \ Elementary algebra and mathematical analysis taught in a standard mathematics course at bachelor/undergraduate level$
- 2. Linear algebra at the level of FORK 1003

The most important material from the first part is elementary algebra, derivation and integration, and standard functions such as polynomials, exponential functions and logarithms. It is also useful to be familiar with min/max-problems in one and two variables. To revise the prerequisites, see Simon, Blume [ME] Chapter 1-5 and the lecture notes from FORK 1003. There is a test available that you can use for self-assessment.

### Lectures and Problem Session

There will be a weekly Lecture, most weeks on Thursday at C1-060 from 08.00 - 11.00. Additionally, there will be Extra lectures (where I will review some of the prerequisites that are assumed known in the lectures), Plenary sessions (where I will go through selected problems) and Problem sessions (where you can work with problems and get help) on Mondays from 17.00 - 19.45.

The lecture plan is available through It's Learning, and will be updated through the semester. The lecture plan gives an overview of all lectures, plenary sessions, problems sessions and exams. It also contains links to lecture notes, the topics of each lectures and the relevant sections in Simon, Blume [ME].

#### Exams

| Date                     | Time    | Exam         |
|--------------------------|---------|--------------|
| Oct 10 2014              | 15 - 16 | Midterm Exam |
| $\mathrm{Dec}\ 12\ 2014$ | 09 - 12 | Final Exam   |