Linear algebra I

Term/Day/Period: I (1^{st} year, 1^{st} semester), Monday, 2 (10:30am – 12:00am)

Class room: Room C43 in Central Building

Instructor: Serge Richard **Office:** Rm. 237 in Sci. Bldg. A

E-mail: richard@math.nagoya-u.ac.jp **Office hour:** anytime, or by appointment

Course: Linearity now is the most basic concept for the handling of quantities in current natural science. Indispensable in quantum mechanics and relativity, its use has spread across all branches of natural science and beyond. Linear algebra, developed in the nineteenth century, is the mathematical theory of linearity. The first half of this one-year course focuses on the techniques for manipulating systems of linear equations and their application to analytic geometry (in two and three dimensions). Emphasis is placed on the ability to solve systems of linear equations including a thorough understanding of the determinant of a matrix.

Homework: There is no homework for this course. However, you are strongly encouraged to do all homework problems assigned to you during the linear algebra part of the Mathematics Tutorial I.

Quizzes: Quizzes will be given randomly during the classes. They will not be announced.

Grading Policy: Your final grade will be determined by quizzes (30%), the midterm exam (30%) and the final exam (40%).

The grading scale will be **S**: 90-100, **A**: 80-89, **B**: 70-79, **C**: 60-69, **F**:0-59

Class and Exam Dates:

Oct. 7, 14, 21, 28

Nov. 11, 18, 25 (midterm exam)

Dec. 2, 9, 16, 24

Jan. 9, 20, 27

Feb. 3 (final exam)

Advices:

- It is expected that you attend all lectures.
- All electronic devices have to be turned off and are prohibited on the tables.
- Prepare for class by (1) reviewing previously learned concepts from previous lectures, (2) completing the homework problems assigned in Mathematics Tutorial I.
- The instructor is here to help you. Please do not hesitate to contact me, earlier rather than later.
- The course website for Calculus I, Linear algebra I, and Mathematics Tutorial I may be found at

  http://www.math.nagoya-u.ac.jp/∼richard/math@g30.html .