Linear algebra II

Term/Day/Period: II (1st year, 2nd semester), Tuesday, 2 (10:30am – 12:00am)

Class room: Room C35 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 is one of the most basic concepts for handling quantities in current natural sciences. Indispensable in quantum mechanics and relativity, its use has spread across all branches of natural sciences and beyond. Linear algebra, developed in the Nineteenth century, is the mathematical theory of linearity. The second half of this one-year course focuses on a deeper study of linear maps (composition, invertibility, eigenvectors and eigenvalues...). The notions of scalar product and determinant will also be studied, and the semester will end with an introduction to complex numbers.

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 II.

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:

April 15, 22

May 13, 20, 27

June 3, 10 (midterm exam), 17, 24, 28

July 1, 8, 15, 22, 29 (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 II.
- The instructor is here to help you. Please do not hesitate to contact me, earlier rather than later.
- The course website for Calculus II, Linear algebra II, and Mathematics Tutorial II may be found at
  http://www.math.nagoya-u.ac.jp/∼richard/spring2014.html .