

Mathematics I

ETH Zurich 406-0251-AAL

Lecturer: Ana Cannas

Abstract

This course covers mathematical concepts and techniques necessary to model, solve and discuss scientific problems - notably through ordinary differential equations.

Content

- I. Differential Calculus
- II. Integral Calculus and Ordinary Differential Equations
- III. Linear Algebra
- IV. Introduction to Systems of Linear Differential Equations

Main Bibliography

For course parts I and II:

Thomas, G. B.: *Thomas' Calculus Early Transcendentals* Part 1, Pearson Addison-W.

For course parts III and IV:

Bretscher, O.: *Linear Algebra with Applications*, Pearson Prentice Hall

Assistance (Oct. - Dec.):

Tuesdays and Wednesdays 17:15-18:45 in room HG E 41

Suggested Readings and Exercises

www.math.ethz.ch/~acannas/MathematikI/mathematics_I.html