

Introduction to LaTeX

A short course in English

Lecturer: Danil Fedorovych

<http://www.hse.ru/en/staff/df>, dfed@hse.ru

HSE University (Moscow)

L^AT_EX



A document preparation system \LaTeX is the standard in the scientific world. The best mathematics, physics and economics journals are published in \LaTeX and authors are encouraged to use it for manuscripts. It has many advantages over the most popular word processors and presentation software:

- high-quality typography – text looks as it would in a professionally published book;
- easy to typeset with complex mathematical formulas;
- excellent cross-platform compatibility;
- automation of many routine processes, e.g. numbering formulas, figures, tables, document sections, cross referencing, organizing headers, footers and design styles, etc.;
- a worldwide community of users and developers; extension packages for any occasion.

\LaTeX is an excellent tool to draw up an essay, term paper, thesis or dissertation, as well as the presentation slides based upon them. \LaTeX requires some effort to learn, but users who have learned it can not ever conceive that they were once creating complex documents in MS Word or presentations in PowerPoint.

Course outline

1. Introduction
2. Math in \LaTeX
3. Tables and images
4. Page layout
5. Procedures and counters
6. Making presentation slides with beamer
7. Coding graphics: Introduction to TikZ
8. Formatting bibliographies
9. \LaTeX for non-English languages

Parts 6–9 are optional and depend on course length.

Course features

- 5 to 7 lectures
- Students replicate lecturer's actions on their computers
- Home assignments are available
- By the end, students are able to typeset their own papers and presentation slides

About the lecturer



Danil Fedorovych (Данил Фёдоровых) is a Senior Lecturer in National Research University Higher School of Economics (HSE), leading Russian university in economics and social sciences. His research interests include industrial organization and economics of informal markets. In 2012, 2013, 2014, 2015 and 2016, he won an “HSE Best Teacher” award.

Danil is a promoter of \LaTeX . He has been teaching it for several years in HSE and as a visiting lecturer in Universidad Autónoma de Madrid. In 2014, “Introduction to LaTeX” became one of the first Russian-language courses at Coursera.org and remains the only massive open online course (MOOC) on \LaTeX in the world. Since 2014, Danil is a member of the global network of Overleaf \LaTeX Advisors.

Danil puts substantial efforts towards stimulating interest in economics among high schoolers and undergraduates. He is a co-founder of ILoveEconomics.ru, a website for Russian students who just started to learn economics, and is also a member of organizing committees of a number of contests in economic problem-solving (olympiads) and summer schools for high school students. In 2014, Danil received New Economic School Alumni and Friends award for promotion of economics among young generations.