GSNS LaTeX course

TEXniCie

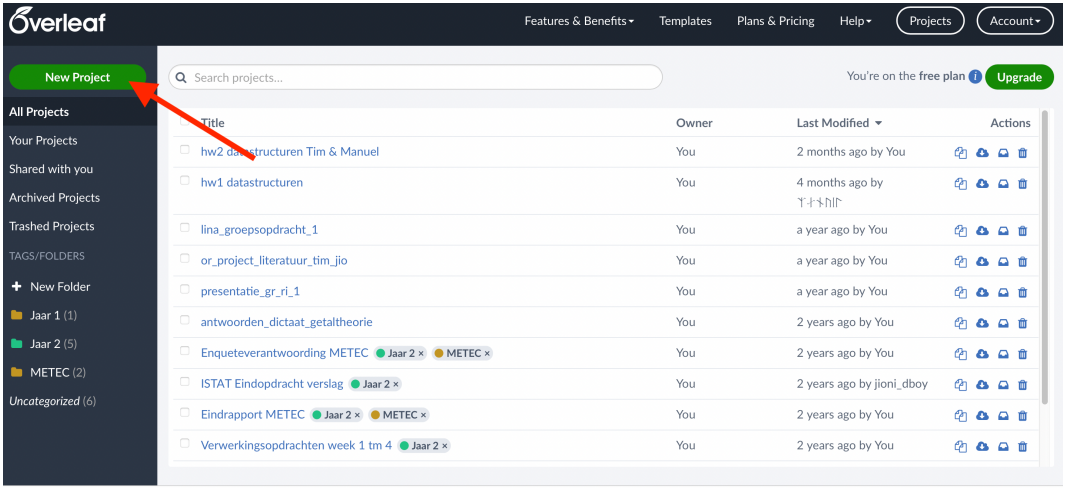
8 September 2022

Please log in (or create an account) on `overleaf.com`

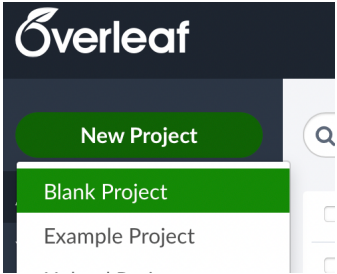
Schedule

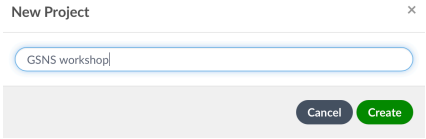
- Introduction to LaTeX and Overleaf
- Text formatting
- ⟨Exercises!⟩
- Structure of a document
- ⟨Exercises!⟩
- Formulas
- ⟨Exercises!⟩
- Images
- ⟨Exercises!⟩
- Closing remarks

Overleaf


Overleaf
Features & Benefits
Templates
Plans & Pricing
Help
Projects
Account
New Project
Search projects...
You're on the free plan
Upgrade
All Projects
Your Projects
Shared with you
Archived Projects
Trashed Projects
TAGS/FOLDERS
New Folder
Jaar 1 (1)
Jaar 2 (5)
METEC (2)
Uncategorized (6)
Title
Owner
Last Modified
Actions
hw2 datastructuren Tim & Manuel
You
2 months ago by You
hw1 datastructuren
You
4 months ago by
lina_groepsopdracht_1
You
a year ago by You
or_project_literatuur_tim_jio
You
a year ago by You
presentatie_gr_ri_1
You
a year ago by You
antwoorden_dictaat_getaltheorie
You
2 years ago by You
Enqueteverantwoording METEC
Jaar 2
METEC
You
2 years ago by You
ISTAT Eindopdracht verslag
Jaar 2
You
2 years ago by jioni_dboy
Eindrapport METEC
Jaar 2
METEC
You
2 years ago by You
Verwerkingsopdrachten week 1 tm 4
Jaar 2
You
2 years ago by You
© 2022 Overleaf
English
Privacy and Terms
Security
Contact Us
About
Blog

Overleaf


Overleaf
New Project
Blank Project
Example Project


New Project
GSNS workshop
Cancel
Create

Simple document in LaTeX

```
1  \documentclass{article}
2
3
4  \begin{document}
5
6
7
8
9  \end{document}
```

preamble: document settings go here

body: content (text and images) goes here

Simple document in LaTeX

```
1  \documentclass{article}
2
3
4  \begin{document}
5
6  The Differential and Integral
7  Calculus, or, as it was formerly
8  called in this country,
9  the Doctrine of Fluxions, has always
10 been supposed to present remarkable
11 obstacles to the beginner.
12
13 \end{document}
```

body: content (text and images) goes here

Example text: Ëlementary Illustrations of the Differential and Integral Calculusby

Simple document in LaTeX

```
1  \documentclass[a4paper,11pt]{article}
2
3
4  \begin{document}
5
6  The Differential and Integral
7  Calculus, or, as it was formerly
8  called in this country,
9  the Doctrine of Fluxions, has always
10 been supposed to present remarkable
11 obstacles to the beginner.
12
13 \end{document}
```

preamble: document settings go here

Example text from “Elementary Illustrations of the Differential and Integral

LaTeX commands

LaTeX commands begin with a backslash, followed by letters or a single special character.
Commands may have **arguments** and **optional arguments**.

```
\command
```

or

```
\command{argument}
```

or

```
\command[optional argument]{argument}
```

LaTeX commands

Some commands go in the **body** of the document

- The command `\LaTeX` prints the LaTeX logo and goes in the **body** of the document.
- `\newpage` starts a new page and it also goes in the **body** of the document.
- `\textbf{text}` is a command for **bold** text. The command takes 1 argument.
- `\sqrt[3]{y}` $\sqrt[3]{y}$ the square root command takes 1 argument and 1 optional argument

LaTeX commands

Other commands go in the **preamble** of the document

- `\title` sets the title of the document.
- `\usepackage{PACKAGENAME}` loads LaTeX code from other authors into your document. This code will often define new commands or tweak existing commands
- `\usepackage[paper=a5paper, margin=2cm, landscape=true]{geometry}` loads the geometry package with 3 optional arguments

Whitespace

- a␣␣␣␣␣b

a b

Whitespace

- a␣␣␣␣␣b
- a\␣\␣\␣\␣\␣b

a b

a b

Whitespace

- a␣␣␣␣␣b
- a\␣\␣\␣\␣b
- a\quad␣b

a b

a b

a b.

Whitespace

- `a␣␣␣␣␣b` → a b
- `a\␣\␣\␣\␣b` → a b
- `a\quad␣b` → a b.
- `a\hspace␣{2cm}b` → a b

Whitespace

- `a␣␣␣␣␣b` → a b
- `a\␣\␣\␣\␣b` → a b
- `a\quad␣b` → a b.
- `a\hspace␣{2cm}b` → a b
- `\LaTeX␣is␣cool!` → LaTeX is cool!

Whitespace

- `a␣␣␣␣␣b` → a b
- `a\␣\␣\␣\␣b` → a b
- `a\quad␣b` → a b.
- `a\hspace␣{2cm}b` → a b
- `\LaTeX␣is␣cool!` → LaTeXis cool!
- `\LaTeX␣{}␣is␣cool!` → LaTeX is cool!

paragraphs

sections

title, author and date

We will now add a title to the article. We use three commands to set a **title**, **author** and **date**. These commands go in the **preamble**.
The command `\maketitle` goes in the **body** of the document and determines the position of the title.

```
\documentclass[a4paper, 12pt]{article}
\title{Elementary Illustrations of the Differential and Integral Calculus}
\author{Augustus De Morgan}
\date{November 11}
\begin{document}
\maketitle
The Differential and Integral Calculus, or, as it was formerly
    called in this country, the Doctrine of Fluxions, has always
    been supposed to present remarkable obstacles to the beginner.
\end{document}
```

special characters

formatting text

math

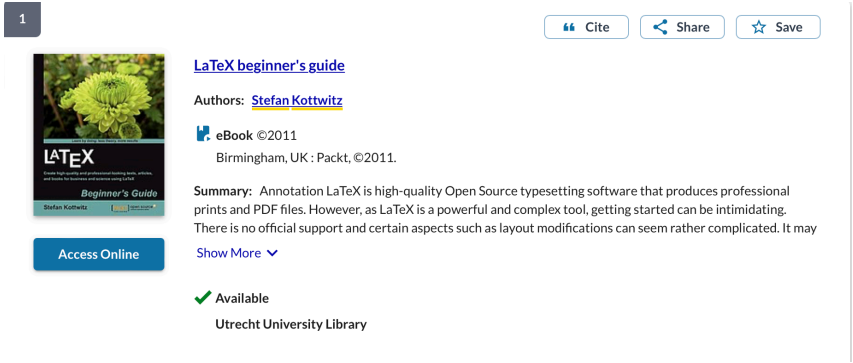
math

more math

more math

closing remarks

The best book for further learning is **LaTeX Beginner's Guide** by **Stefan Kottwitz**. The first edition is available as an eBook at the UU library.



closing remarks

The TEXniCie organises a **thesis writing workshop** in februari 2023 and various workshops throughout the year. These will be announced on our website at

a-eskwadraat.nl/LaTeX