# GSNS LATEX course

T<sub>E</sub>XniCie

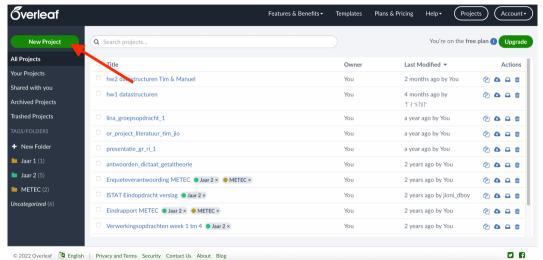
8 September 2022

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### Schedule

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

#### **Overleaf**



### Overleaf





## 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

```
\documentclass{article}
   \begin{document}
   The Differential and Integral
   Calculus, or, as it was formerly
   called in this country,
                                                  body: content (text and images)
   the Doctrine of Fluxions, has always
                                                  goes here
   been supposed to present remarkable
10
   obstacles to the beginner.
11
   \end{document}
```

# Simple document in LATEX

```
\documentclass[a4paper,11pt]{article}
2
3
   \begin{document}
5
   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
10
   obstacles to the beginner.
11
12
   \end{document}
```

preamble: document settings go here

#### LaTeX commnands

LaTeX commands begin by a backslash, followed by letters or special characters. Commands may have  ${\bf arguments}$  and  ${\bf optional}$   ${\bf arguments}$ .

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

#### LaTeX commnands

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 is 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 commnands

other commands go in the preamble of the document

- ▶ \title sets the title of the document.
- \usepackage{PACKAGENAME} loads LaTeX code someone else has written into your document
- \usepackage[paper=a5paper, margin=2cm, landscape=true]{geometry}
  loads the geometry package with 3 optional arguments

# whitespace

# 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