

The HomeworkAssignment class*

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1 Abstract

This class provides a relative simple document-type for homework, mainly created for assignments at the University. This class is inherited from `article`, it is not perfect, but I am trying my very best.

2 Commands

2.1 Document Informations

`\subject` Sets the subject of the document. Takes the subject as argument. Standard Value is "Kein Kurs"
`\kurs` is deprecated.

`\tutorial` Sets the tutorial of the author. Takes it as an argument. Standard Value is empty, so that this command can be omitted.
`\tutorium` is deprecated.

`\deadline` Sets the deadline of the document. Takes it as an argument. Standard value is `\today`.
`\abgabe` is deprecated

2.1.1 Inherited from article

`\author` Sets the author of the document.
`\date` Sets the date of the document.

*This document corresponds to `HomeworkAssignment ? ,dated ?`.

2.2 Sectioning

2.2.1 ‘plain’ Sectioning

2.2.2 ‘better’ Sectioning

3 Pagestyle

3.1 Headers

4 Development and support

The package is developed at *github*:

<https://github.com/ACHinrichs/LaTeX-templates>

Please refer to that site for any bug report or development information.

5 Changelog

v1.0 - 2016/10/23 Intial

v1.1 - 2016/11/02 ...

v1.2 - 2016/11/03 ...

v1.3 - 2016/12/01 Provide the Class as .dtx file and more

v1.4 - 2017/04/29 “Minor” bugfixes

6 Implementation

The following part is very boring, but i have not found a solution to create a .cls-file without including the implemetation into the document. Loads L^AT_EX2e and sets the Version Loads the article, which is the base-class.

```

1
2 \DeclareOption*{\PassOptionsToClass{\CurrentOption}{article}}
3 \ProcessOptions \relax \LoadClass{article}

  Loads required Packages
4 \RequirePackage{suffix} \RequirePackage{fancyhdr}
5 \RequirePackage{ifthen}

Sets the page-headers.
All headers are cleread before they get any Text — just to be sure.
The headers look like specified above (3.1). Also inserts the Titlepage.

6
7 \fancypagestyle{firstpage}{
8   %
9   \fancyhf{}
10  % clear all six fields
11  \renewcommand{\headrulewidth}{.7pt}
12  \renewcommand{\footrulewidth}{0pt} \fancyfoot[RE,LO]{\thepage}
13  \fancyhead[L]{\hwa@tutorium } \fancyhead[R]{\@date } }
14 \fancypagestyle{followingpage}{
15   %
16   \fancyhf{}
17   % clear all six fields
18   \fancyhead[RE,LO]{\@author} \fancyhead[LE,RO]{\hwa@kurs\ Abgabe:
19     \hwa@abgabe} \fancyfoot[RE,LO]{\thepage}
20   \renewcommand{\headrulewidth}{0.7pt}
21   \renewcommand{\footrulewidth}{0pt} } \pagestyle{followingpage}
22 \AtBeginDocument{ \thispagestyle{firstpage}
23   \setlength{\headheight}{25pt} }
```

6.1 Commands

```

\subject Defines \kurs. \subject equals \kurs
24 \newcommand{\hwa@kurs}{Kein Kurs}
25 \newcommand{\subject}[1]{\renewcommand{\hwa@kurs}{#1}}
26 \newcommand{\kurs}[1]{\subject{#1}}

\tutorial Defines \tutorium. \tutorium equals \tutorial
27 \newcommand{\hwa@tutorium}{}
28 \newcommand{\tutorial}[1]{\renewcommand{\hwa@tutorium}{#1}}
29 \newcommand{\tutorium}[1]{\tutorial{#1}}

\deadline Defines \deadline. \abgabe equals \deadline
30 \newcommand{\hwa@abgabe}{\today}
```

```

31 \newcommand{\deadline}[1]{\def\hwa@abgabe{#1}}
32 \newcommand{\abgabe}[1]{\deadline{#1}}

\maketitle Overrides maketitle.
33
34 \renewcommand{\maketitle} {
35   \begin{centering}
36     \huge{\textbf{\hwa@kurs}} {\hrule height 2pt \vspace{.25cm}
37     \large
38     Abgabe: \hwa@abgabe\
39     \vspace{.5cm} \hrule \vspace{.25cm}
40     \normalsize{\@author}\
41     \vspace{.25cm} \hrule \vspace{.25cm} \normalsize
42   \end{centering}
43 }

Defines and initialize all counters.
44 \newcounter{problem} \setcounter{problem}{0}
45 \newcounter{subproblem}[problem] \setcounter{subproblem}{0}
46 \newcounter{subsubproblem}[subproblem] \setcounter{subsubproblem}{0}

Defines 'plain' sectioning-commands. See ?? for more informations.
47 \newcommand{\problem}[1]{\@startsection{problem}%Name
48   {1}%Level
49   {\z@}%indent
50   {-2em \@plus -1em \@minus -1em}%beforeskip
51   {1ex \@plus .5ex}%afterskip
52   {\normalfont\Large\bfseries}%style
53   *{#1}}
54
55 \newcommand{\subproblem}[1]{\@startsection{subproblem}%Name
56   {2}%Level
57   {\z@}%indent
58   {-1em \@plus -.5em \@minus -.5em}%beforeskip
59   {.5ex \@plus .5ex}%afterskip
60   {\normalfont\large\bfseries}%style
61   *{#1}}
62
63 \newcommand{\subsubproblem}[1]{\@startsection{subsubproblem}%Name
64   {3}%Level
65   {\z@}%indent
66   {-.5em}%beforeskip
67   {.5em}%afterskip
68   {\normalfont\bfseries}%style
69   *{#1}}
70
71 \newcommand{\solution}[1][\@startsection{solution}%Name
72   {4}%Level
73   {\parindent}%indent
74   {-.1em}%beforeskip

```

```

75 {\z@}%afterskip
76 {\normalfont\bfseries}%style
77 *{L\osung\ifthenelse{\equal{#1}{}} {} { #1:~~ } }
78
79 \newcommand{\proof}[1] [] {\@startsection{proof}%Name
80 {4}%Level
81 {\parindent}%indent
82 {- .1em}%beforeskip
83 {\z@}%afterskip
84 {\normalfont\bfseries}%style
85 *{Beweis\ifthenelse{\equal{#1} {} } {} { #1:~~ } }

```

Defines ‘better’ sectioning commands. See 2.2 and 2.2.2 for more informations.

```

86 \newcommand{\newproblem}[1] [] {\stepcounter{problem}
87 \ifthenelse{\equal{#1}{}} {} {} {\setcounter{problem}{#1}}
88 \problem{Aufgabe \arabic{problem}} }
89
90 \newcommand{\newsubproblem}[1] [] {\stepcounter{subproblem}
91 \ifthenelse{\equal{#1}{}} {} {} {\setcounter{subproblem}{#1}}
92 \subproblem{Aufgabe \arabic{problem}.\alph{subproblem}} }
93
94 \newcommand{\newsbsubproblem}[1] [] {\stepcounter{subsubproblem}
95 \ifthenelse{\equal{#1}{}} {} {} {\setcounter{subsubproblem}{#1}}
96 \subproblem{\roman{subsubproblem}} }
97

```

The End

```

98 \endinput

```