

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 \tutorial. \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   \addcontentsline{toc}{section}{#1}
55 }
56
57 \newcommand{\subproblem}[1]{\@startsection{subproblem}%Name
58   {2}%Level
59   {\z@}%indent
60   {-1em \@plus -.5em \@minus -.5em}%beforeskip
61   {.5ex \@plus .5ex}%afterskip
62   {\normalfont\large\bfseries}%style
63   *{#1}
64   \addcontentsline{toc}{subsection}{#1}
65 }
66
67 \newcommand{\subsubproblem}[1]{\@startsection{subsubproblem}%Name
68   {3}%Level
69   {\z@}%indent
70   {-.5em}%beforeskip
71   {.5em}%afterskip
72   {\normalfont\bfseries}%style
73   *{#1}
74 }

```

```

75
76 \newcommand{\solution}[1] [] {\@startsection{solution}%Name
77   {4}%Level
78   {\parindent}%indent
79   {-.1em}%beforeskip
80   {\z@}%afterskip
81   {\normalfont\bfseries}%style
82   *{L\ "osung\ifthenelse{\equal{#1}{}} { } { #1}:~~ }
83 }
84
85 \newcommand{\proof}[1] [] {\@startsection{proof}%Name
86   {4}%Level
87   {\parindent}%indent
88   {-.1em}%beforeskip
89   {\z@}%afterskip
90   {\normalfont\bfseries}%style
91   *{Beweis\ifthenelse{\equal{#1} { } } { } { #1}:~~ }
92 }

```

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

```

93 \newcommand{\newproblem}[1] [] {\stepcounter{problem}
94   \ifthenelse{\equal{#1}{}} { } {\setcounter{problem}{#1}}
95   \problem{Aufgabe \arabic{problem}} }
96
97 \newcommand{\newsubproblem}[1] [] {\stepcounter{subproblem}
98   \ifthenelse{\equal{#1}{}} { } {\setcounter{subproblem}{#1}}
99   \subproblem{Aufgabe \arabic{problem}.\alph{subproblem}} }
100
101 \newcommand{\newsbsubproblem}[1] [] {\stepcounter{subsubproblem}
102   \ifthenelse{\equal{#1}{}} { } {\setcounter{subsubproblem}{#1}}
103   \subsubproblem{\roman{subsubproblem}} }
104
105 \endinput

```

The End