

# The jslectureplanner package

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\*Please report issues via <https://github.com/jspitz/jslectureplanner>.

## 1 Aim of this package

I have written this package in order to facilitate (and somewhat systematize) the planning of my university courses. The basic idea of this package is that you record all general data of a course (date, semester, type, course title, session titles, general information etc.) in a central tex file and then input this file to all documents related to the course (such as the course program, bibliography, scripts, handouts, beamer presentations, exercises etc.), in order to re-use the recorded data. This is particularly helpful if you have standard courses which are held every other semester: instead of changing the data in every single file, you just need to change it once, in the metadata file.

To further facilitate the planning, the package is able to calculate the session dates of a whole semester, if the sessions of the course follow at regular intervals. You only need to set the date of the first session, the package does the rest. Moreover, the package can be used to generate a sectioned bibliography for the course via biblatex.

Since the package was written for my own needs, it is somewhat tied to my workflow. Particularly, it is tied to my context: teaching in the Humanities at a German-speaking university. Hence, the categorization of the package draws on this context. In particular, all strings and formats are German. However, it is possible to customize, extend and translate them to other languages. This is described later in this manual.

This manual describes the basic user interface of the package. Please also refer to the example files included in the package in order to see how it is supposed to be used “in practice”.

## 2 Requirements

The following packages are required: etoolbox, advdate, xkeyval, datetime, calc.

## 3 General idea

The general idea goes as follows:

- Set up a *metadata.tex* file (or whatever name you prefer) and record all meta information of the course in it (as described in sec. 4 and 5).
- In your documents, load the package (`\usepackage{jslectureplanner}`) and/or<sup>1</sup> input the metadata file (`\input{metadata.tex}`).
- Finally, use the macros described in sec. 6 and 7 to retrieve the respective data and re-use the recorded information in your documents.

The procedure is detailed in the following sections.

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<sup>1</sup>If you prefer to record the data via package options (see sec. 4.1) instead of macros (see sec. 4.2), you need to load the package in the metadata file itself.

## 4 Setting up course metadata

You can set up the course metadata either via package options (if you load the package in the metadata file; see sec. 4.1) or via specific macros (see sec. 4.2).

### 4.1 Via package options

`\usepackage[<comma-separated options>]{jslectureplanner}`

#### 4.1.1 Course classification

The course classification draws on the conventions at German universities (or those where I have worked, for that matter). Each type is connected to a verbose string (such as “Seminar”), a short form (such as “SE”) and a form that is used to denote individual sessions (as in “the second *session* of this course”).

**type=**<type> Defines the course type. Preset values:

- **vl**: A lecture (verbose form: “Vorlesung”<sup>2</sup>, short form: “VL”, session form: “Vorlesung”)
- **ps**: Undergraduate seminar (verbose form: “Proseminar”, short form: “PS”, session form: “Sitzung”)
- **se**: Seminar (verbose form: “Seminar”, short form: “SE”, session form: “Sitzung”)
- **ue**: Practical course (verbose form: “Übung”, short form: “UE”, session form: “Sitzung”)
- **ko**: Colloquium (verbose form: “Kolloquium”, short form: “KO”, session form: “Sitzung”)
- **pv**: Research seminar (verbose form: “Privatissimum”, short form: “PV”, session form: “Sitzung”)

Sec. 8 explains how to customize and extend this list. Also cf. sec. 8.5 on the concept of “styles”.

#### 4.1.2 Course title

**title=**<title> Main title of the course

**titlesep=**<separator> Separator between title and subtitle

**subtitle=**<subtitle> Subtitle of the course

**shorttitle=**<shorttitle> Short title of the course (for headings etc.)

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<sup>2</sup>Sec. 8 explains how to customize these strings.

### 4.1.3 Date and place

**semester**=<term>, where <term> is one of

- **fs**: Spring term (“Frühjahrssemester”, short form: “FS”)
- **hs**: Fall term (“Herbstsemester”, short form: “HS”)
- **ss**: Summer term (“Sommersemester”, short form: “SoSe”)
- **ws**: Winter term (“Wintersemester”, short form: “WS”)

**year**=<year>

**uni**=<university>

**institute**=<institute>

**room**=<room>

**startdate**=<startdate> Date of the first session (argument *must* have the form DD/MM/YYYY). If no startdate is given, \today is used.

**interval**=<interval> Interval (in days) between two sessions. The preset interval is 7 (= weekly courses).

### 4.1.4 Additional information

**instructor**=<name> Instructor’s name

**platform**=<data> Information (e. g., URL) of the e-learning platform

**officehours**=<data> Date of your office hours

**officenummer**=<data> Your office number

## 4.2 Via macros

The following macros provide an alternative interface to set up the course meta-data.

### 4.2.1 Course classification

- **\LecType{<course type>}**: Set course type; <course type> is one of<sup>3</sup>
  - **vl**: Lecture (*Vorlesung*)
  - **ps**: Undergraduate seminar (*Proseminar*)
  - **se**: Seminar (*Seminar*)
  - **ue**: Practical course (*Übung*)
  - **ko**: Colloquium (*Kolloquium*)
  - **pv**: Research seminar (*Privatissimum*)

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<sup>3</sup>See above sec. 4.1.1 for a detailed description.

#### 4.2.2 Course title

- **\LecTitle[<package options>]{<title>}**: Record course title and options; <package options> might be any set of package options described in sec. 4.1 (except for **title** itself), so this macro can actually be used to record all metadata.
- **\LecTitleSep{<title separator>}**: Specify course title-subtitle separator (e. g., “ . ” or “ – ”)
- **\LecSubTitle{<subtitle>}**: Record course subtitle

#### 4.2.3 Date and place

- **\LecYear{<term>}{<year>}**, Record term and year of the course; <term> is one of<sup>4</sup>
  - **fs**: Spring term (*Frühjahrssemester*)
  - **hs**: Fall term (*Herbstsemester*)
  - **ss**: Summer term (*Sommersemester*)
  - **ws**: Winter term (*Wintersemester*)
- **\LecUni{<university>}**: Record the name of your university
- **\LecInstitute{<institute>}**: Record your institute’s name
- **\LecRoom{<room>}**: Record the room where the course takes place
- **\LecStartDate{<startdate>}**: Set date of the first session (argument *must* have the form DD/MM/YYYY)
- **\LecInterval{<interval>}**: Adjust the interval (in days) between two sessions. The preset interval is 7 (= weekly courses).
- **\SetAutoOffset{<n>}{<days>}**: Automatically shift all subsequent sessions by <days> extra days after every <n>th session. This is useful if you have each week two regular sessions and then a pause until the next week (for instance, a Tuesday + Thursday course could be defined via **\LecInterval{2}** and **\SetAutoOffset{2}{3}**)

#### 4.2.4 Additional information

- **\LecInstructor{<name>}**: Record the instructor’s name
- **\SetOfficeHours{<office hours>}**: Record date of your office hours
- **\SetOfficeNumber{<office number>}**: Record your office number
- **\SetPlatform{<platform information>}**: Record information (e. g., URL) of the e-learning platform

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<sup>4</sup>See above sec. 4.1.3 for a detailed description.

## 5 Setting up a course schedule

In the metadata file, you can set up a schedule for the course by entering session information in chronological order. This is done via the following macro:

- `\NewSession[<options>]{Session title}`

Valid `<options>`:

- `titlesep=<separator>`: Separator between session title and subtitle
- `subtitle=<subtitle>`: Subtitle of the session
- `shorttitle=<shorttitle>`: Short title (for headings etc.)
- `instructor=<name>`: Specific instructor for this session (if it differs from the usual course instructor)
- `presstudents=<names>`: Students presenting in this session
- `room=<room>`: Specific room for this session (if it differs from the usual course room)
- `bibsec=<keyword>`: Session keyword for the bibliography (see below sec. 6.3 for its use)
- `cancel=<true|false>`: Marks this session as “canceled”. If you specify `cancel=true`, the session will be printed in the program in bold type and appended by a verbal comment. For example,

`\NewSession[cancel=true]{Dies Academicus}`

will expand to

**15.05.: Dies Academicus – keine Sitzung**

(i. e., “Dies Academicus – no session”).

Furthermore, a canceled session is not counted in the session counter that is used to retrieve session-specific information (see below sec. 7).

- `\SetBreak[<span>]{Break}`: Add a semester break (e. g., holidays) that affects one session. The macro increments the internal counters respectively and expands in the program to

**(Break)**

By means of the optional argument, the real time span of the break might be given if you want to print it on the program. If you pass an optional argument `<span>`, the macro will expand to

**(<span>: Break)**

E. g., `\SetBreak[28.05.--3.06.]{Whitsun holidays}` expands to

**(28.05.–3.06.: Whitsun holidays)**

- **\SetBreaks[<options>]{Break}**: Add a semester break that affects more than one session (e. g., two-week holidays). The output in the program is identical to the **\SetBreak** macro, but the counter incrementation can be adjusted to the needed time span.

Possible **<options>** are:

- **units=<n>**: Number of interval units the break takes. One *unit* is the number of days as specified by the **interval** option (one week by default<sup>5</sup>). This value is needed in order to increment the internal counter that is used to calculate the session dates. If **units** is not specified, the counter is incremented by one.<sup>6</sup> **<n>** must be a positive integer.
- **span=<span>**: Real time span (verbally output on the program)
- **\SetLecOffset{<n>}**: Shift the date of all subsequent sessions by **<n>** days. **<n>** can also be negative.
- **\SetBeamerFrameBreak**: Add a frame break in the beamer program at this position (more precisely, start a new frame). This also increments the frame counter which is used for subsequent program frame titles. Note that you can insert maximally 3 breaks.
- **\SetBeamerHook{<code>}**: Add arbitrary  $\TeX$  code to the beamer program
- **\begin{SessionBlock}{<Block title>}**  
...  
**\end{SessionBlock}**:  
Thematic block consisting of several sessions. Respective sessions are nested inside this block.

## 6 Retrieving general course information

Once the metadata file is set up as documented above and input to your document(s), you can retrieve the recorded as well as some concatenated information by means the following macros.

### 6.1 Course data

The following macros output general course-specific information:

- **\lectype**: Outputs the course type in short form (e. g., “SE”)
- **\lectypeverb**: Outputs the course type in verbose form (e. g., “Seminar”)

<sup>5</sup>The former option **weeks** is deprecated as of v. 0.9, since the interval can be adjusted now.

<sup>6</sup>That is: **\SetBreak{Break} = \SetBreaks{Break} = \SetBreaks[units=1]{Break}**.

- **\lectypesession:** Outputs the appropriate “session” string (e. g., “Vorlesung” or “Sitzung”)
- **\lectitle:** Outputs the main title of the course
- **\lectitlesep:** Outputs the separator between title and subtitle
- **\lecsubtitle:** Outputs the subtitle of the course
- **\lecfulltitle:** Outputs the full title of the course (title, separator, subtitle)
- **\lecshorttitle:** Outputs the short version of the course title
- **\lecsemshort:** Outputs the short version of the term type (e. g., “WS”)
- **\lecsemverb:** Outputs the verbose version of the term type (e. g., “Wintersemester”)
- **\lecyear:** Outputs the year
- **\lecsemester:** Outputs the short version of the semester (e. g., “WS 2014”)
- **\lecsemesterverb:** Outputs the verbose version of the semester (e. g., “Wintersemester 2014”)
- **\lecuniversity:** Outputs the university’s name
- **\lecinstitute:** Outputs the institute’s name
- **\lecinstructor:** Outputs the instructor’s name
- **\lecroom:** Outputs the course room
- **\lecplatform:** Outputs information on the e-learning platform
- **\officehours:** Outputs the office hours
- **\officenumber:** Outputs the office number

## 6.2 Generating course programs

- **\makeprogram:** Generates a course program from the metadata in the form

```
\begin{labeling}{\lecprogramlistindent}
\item[<short date>] <session full title>
...
(break)
...
\item[<short date>] <session full title>
\end{labeling}
```



The **labeling** environment is defined by the KOMA classes. The package provides a fallback, however, if another class is used.

- **\makebeamerprogram[<options>]**: Generates a beamer-suited lecture program from the metadata in the form

```
\begin[label=beamerprogram<nr>,<bfoptions>]{frame}
\frametitle{<Heading>}
\begin{description}[\lecprogramlistindent]
\item[<short date>] <session full title>
...
(break)
...
\item[<short date>] <session full title>
\end{description}
\end{frame}
```

**<options>** can be one of

- **title=<title>**: Program title (<Heading>)
- **options=<bfoptions>**: Beamer frame options. Note that yey-value beamer frame options need to be embraced, as in **\makebeamerprogram[options={shrink=10}]**

Note that multiple subsequent frames are generated if the metadata file contains **\SetBeamerFrameBreak** macros. Also note that you can refer to the frames via the automatically generated labels *beamerprogram* (for the first frame), *beamerprogram2* for the second, etc. Finally note that the number of program frames is currently limited to 4. If you need more, you should probably rethink your program structure.

## 6.3 Generating bibliographies

The package provides macros for easy generation of sectioned bibliographies via biblatex. The macro

- **\makesessionbib**

generates code in the form

```
\section{<session full title>}
\nocite{*}
\printbibliography[keyword=<session keyword>,heading=none]
```

for each session of the lecture which has been linked to a biblatex keyword via the **bibsec** option (see above sec. 5).

So if you specify your session with a keyword via the **bibsec** option, and tag your Bib<sub>TeX</sub> database entries with that keyword, you will get a list of session-specific literature.

## 7 Retrieving session-specific information

In session-specific documents, you also need information specific to the current session. This is done as follows.

### 7.1 Setting the current session

Use `\ThisSession{<nr>}` to tell the package which session is current. `<nr>` is an integer value, e.g. `\ThisSession{3}` for the 3rd session of the lecture.

### 7.2 Generating session-specific information for the current session

If you have specified the current session via the macro `\ThisSession`, the following macros output general session-specific information:

- `\sesdate`: Date of the current session
- `\sessshortdate`: Date of the current session, short form (no year)
- `\sestitle`: Main title of the current session
- `\sestitlesep`: Title-subtitle separator of the current session
- `\sesssubtitle`: Subtitle of the current session
- `\sesfulltitle`: Full title of the current session (title, separator, subtitle)
- `\sesinstructor`: Current session's instructor's name
- `\sespresstudents`: Students presenting in this session
- `\sesnr`: Number of the current session
- `\sesroom`: Room of the current session

### 7.3 Generating session-specific information for an arbitrary session

Independent of the value of `\ThisSession`, you can retrieve the following information for arbitrary sessions (session number `<nr>`) via the following macros:

- `\SessionTitle{<nr>}`: Outputs the main title of session number `<nr>`
- `\SessionFullTitle{<nr>}`: Outputs the full title (main title, separator, subtitle) of session number `<nr>`
- `\SessionShortTitle{<nr>}`: Outputs the short title of session number `<nr>`

- **\SessionDate{<nr>}**: Outputs the date of session number <nr>
- **\SessionShortDate{<nr>}**: Outputs the short date (no year) of session number <nr>
- **\SessionInstructor{<nr>}**: Outputs the name of the instructor of session number <nr>
- **\SessionPresStudents{<nr>}**: Outputs the name of the students presenting in session number <nr>
- **\SessionRoom{<nr>}**: Outputs the room of session number <nr>
- **\MakeProgramLine{<nr>}**: Outputs a list item line for session number <nr> in the form

<code>\item[{\bfseries &lt;short date&gt;}] &lt;session full title&gt;</code>
---

## 8 Customizing the output

### 8.1 Defining and customizing course types

The following macro allows to define new course types and redefine existing ones:

- **\DefLecType{<key>}{<short form>}{<title>}{<session title>}**

A new type, say summer school, thus, could be defined as follows:

- **\DefLecType{ss}{SS}{Summer School}{Session}**

This could then be set via **\LecType{ss}** or the package option **type=ss**, respectively.

Likewise, you can use the macro to redefine existing styles, e. g. change the “session” string of type **vl** via

- **\DefLecType{vl}{VL}{Vorlesung}{Einheit}**

If you need to change or add types, consider the use of styles (see sec. 8.5).

### 8.2 Defining and customizing term types

The available term (semester) types can be changed and extended via the macro:

- **\DefSemType{<key>}{<short form>}{<verbose form>}**

Thus, you could add a new term type “spring term” via

- **\DefSemType{st}{ST}{Spring Term}**

### 8.3 Customizing the date format

If you need to change the date format, redefine the macros `\lecdateformat` (for the long format) and `\lecdateshortformat` (for the short format), using the syntax provided by the `datetime` package. By default, the two formats are defined as follows:

```
\newcommand*\lecdateformat{%
  \THEDAY.\,\twodigit{\THEMONTH}.\,\THEYEAR}
\newcommand*\lecdateshortformat{%
  \THEDAY.\,\twodigit{\THEMONTH}.}
```

Use `\renewcommand*` to redefine them.

### 8.4 Misc. customizing

The canceling output is “Session title – keine <Session>” (“keine” is German for “no”). To modify or translate this, redefine the following macro

```
\newcommand*\leccancel{\ -- keine \lectypesession}
```

The default program string used in beamer frames can be changed by redefining

```
\newcommand*\lecprogram{Programm}
```

The indentation used in program lists can be changed by redefining

```
\newcommand*\lecprogramlistindent{\textbf{88.\,88.}}
```

Again, use `\renewcommand*` to redefine those.

### 8.5 Using styles

The most elegant way to do the customizing is to use *lecture planner style* (\*.lps) files. These files can be loaded via the `style=<style>` package option, where `<style>` is the file name without \*.lps extension.

Currently, the package ships only one style, *german-default*, which includes the default strings. This one can be used as a model. If you provide me with other style files, in particular translations to other languages than German (but also other university conventions), I consider them for inclusion to the package.

## 9 History

- Forthcoming (v.1.0): Lecture types and term types are not hardcoded anymore and can be freely modified and extended via `\DefLecType` and `\DefSemType`; add option to add the instructor’s name to both the course (via `\LecInstructor` or `instructor` package option) and to specific sessions (via `instructor` option of `\NewSession`); add option to add names

of presenting students to a session (via **presstudents** option); add option to record the office number (**\SetOfficeNumber** or **officenum** package option); fix expansion issue in **options** option of **\makebeamerprogram**; add option to automatically shift all subsequent sessions by a certain value after every  $n$ th session (**\SetAutoOffset**).

- 2015/02/08 (v. 0.9): Add a way to adjust the interval between two sessions (**interval** package option and **\LecInterval** macro); add a way to shift session dates from the regular interval (**\SetLecOffset**); rename option **weeks** of the **\SetBreaks** macro to **units** (**weeks** still works, but is marked deprecated).
- 2015/01/17 (v.0.8): Fix corruption of **\today**; add framework for different styles; add option and macro to set a room for the course as well as a session-specific room; remove redundant lecture type **vo** from the documentation; change **\leccancel** default definition in favour of better translatability.
- 2015/01/04 (v.0.7): Add macro for resetting **\today**; minor corrections in the manual.
- 2014/12/12 (v. 0.6 b): Minor corrections in the manual and example files.
- 2014/12/12 (v. 0.6): Initial release to CTAN.