

# litetable 宏包 — 多彩嘅課程表<sup>\*</sup>

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## 1 介紹

litetable 宏包提供咗一個多彩嘅課程表設計，基於 TikZ 由 expl3 開發. 支援 pdf $\TeX$ , Xe $\TeX$ , Ap $\TeX$  同 Lua $\TeX$  等多種編譯方式. 點擊跳轉 [\[English\]](#) [\[简体中文\]](#) 手冊.

## 2 用戶接口

要加載此宏包，只需寫下

```
\usepackage{litetable}
```

`litetable (env)` 環境 `litetable` 可生成空白課程表，需在命令 `\timelist` 同 `\weeklist` 後執行

```
\begin{litetable} [<keys>] {<title>} [<keys>] ... \end{litetable}
```

強制參數用於設定課程表標題，可選參數接受以下鍵

**scale** =  $\langle float \rangle$  可設定課程表嘅縮放比例（默認值: 1.0）.

**color** =  $\langle color \rangle$  可設定課程表框架嘅背景色（默認值: gray），鍵名可省略.

**sem** =  $\langle string \rangle$  可設定頁面右上角嘅學期信息.

**hline** =  $\langle string \rangle$  可設定水平線嘅樣式（默認值: solid）.

---

```
\weeklist \weeklist [<keys>] {<list>} [<keys>]
```

強制參數接收數組，用於設定課程表頂部嘅工作日列表同列寬. 可選參數接受以下鍵

**format** =  $\langle format commands \rangle$  可設置工作日列表格式（默認值: `\bfseries`）.

**sep** =  $\langle string \rangle$  可設定工作日列表嘅分隔符.

```
\weeklist [ format = \bfseries \scshape, sep = \textbar ]  
{ Mon -> 1.05, Tue -> 1.05, Wed -> 1.1, Thu -> 1.1, Fri -> .9 }
```

---

<sup>\*</sup><https://github.com/myhsia/litetable>, <https://ctan.org/pkg/litetable>

<sup>†</sup> 郭李軍開發咗解析  $\langle left \rangle \rightarrow \langle right \rangle$  型數據結構嘅接口.

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`\timelist` `\timelist` [*<keys>*] {*<list>*} [*<keys>*]

強制參數均接收數組，用於設置課程表嘅左側嘅時間列表. 可選參數接受以下鍵

**numformat** = *<format>* 可設定時間列表嘅序號字體（默認值: `\ttfamily \bfseries`）.

**timeformat** = *<format>* 可設定時間列表嘅時間字體（默認值: `\ttfamily`）.

**hidetime** = *<true|false>* 用於隱藏時間列表中嘅時間，只保留序號（初始值: `false`）.

```
\timelist [ numformat = \bfseries, timeformat = \ttfamily ]
          { 08:30 -> 10:00, 10:30 -> 12:00, 13:00 -> 14:30, 15:00 -> 16:30 }
```

---

`\course` `\course` [*<keys>*] {*<start>*} [*<keys>*] {*<end>*} [*<keys>*]

用於在當前工作日添加課程盒子，需在 `litetable` 環境中執行. 兩個強制參數分別用於設置課程嘅開始同結束序號. 可選參數接收下列鍵

**color** = *<color>* 用於設置課程盒子嘅顏色（默認值: `teal`）. 鍵名可省略.

**subject** = *<string>* 用於設置課程名稱.

**location** = *<string>* 用於設置課程地點.

**lecture** = *<string>* 用於設置授課教師.

**comment** = *<string>* 用於給課程添加腳注.

**T<sub>E</sub>Xhackers note:**

- 若 *<start>* = *<end>*（課程盒子嘅高度為 1），若 **location** 和 **lecture** 會輸出在同一行，而且 **comment** 將隱藏.
- 即使誤將 *<start>* 同 *<end>* 寫反，模板也會自動糾正.
- 若 **location** 同 **lecture** 均未使用，則 **subject** 將輸出在課程盒子嘅豎直方向中心.
- 超出課程表範圍嘅課程盒子將唔顯示，并會返回警告. 輸入用例見 [Appendix 3](#).

---

`\newday` `\newday` [*<integral value>*]

使其後面添加嘅課程盒子後移 *<integral value>* 個工作日. 可選參數嘅默認值為 1.

---

`\more` `\more` {*<comment>*}

在課程表嘅右下角添加備注.

### 3 工作範例

```
\documentclass[svgnames, a4paper]{article}

\usepackage[scale = .9]{literate}
\usepackage{twemojis}
\usepackage[osf, mono = false]{libertine}
\usepackage[T1]{fontenc}

\begin{document}

\weeklist [ format = \bfseries \scshape, sep = \textbar ]
{
  \texttwemoji{1f312} Mon -> 1.05, \texttwemoji{1f525} Tue -> 1.05,
  \texttwemoji{1f30a} Wed -> 1.1, \texttwemoji{1f332} Thu -> .9,
  \texttwemoji{1fa99} Fri -> .9
}

\timelist [ numformat = \ttfamily \bfseries, timeformat = \ttfamily ]
{
  08:05 -> 08:50, 08:55 -> 09:40, 10:00 -> 10:45, 10:50 -> 11:35,
  11:40 -> 12:25, 13:30 -> 14:15, 14:20 -> 15:05, 15:15 -> 16:00,
  16:05 -> 16:50, 18:30 -> 19:15, 19:20 -> 20:05, 20:10 -> 20:55
}

\begin{literate} [ DarkBlue, sem = SEM 7, hline = dashed ]
{Course Schedule}
\course [ subject = interface3, comment = \TeX~Live 2025,
          lecture = The \LaTeX\ Project, DarkBlue ] {4} {5}
\newday
\course [ subject = expl3, lecture = The \LaTeX\ Project ] {8} {8}
\newday
\course [ subject = Keep on \TeX ing, lecture = Donald E. Knuth,
          location = Stanford University, Purple ] {10} {11}
\newday
\course [ subject = Ti\textit{k}/Z, lecture = \textsc{pgf},
          Crimson, comment = Version 3.1.10 ] {3} {5}
\more {Programme Duration: 09 / 2021 -- 07 / 2025}
\end{literate}
```

`\end{document}`

# Course Schedule

SEM 7

MON

TUE

WED

THU

FRI

1

08:05

08:50

2

08:55

09:40

3

10:00

10:45

4

10:50

11:35

5

11:40

12:25

**interface3**

The L<sup>A</sup>T<sub>E</sub>X Project

T<sub>E</sub>X Live 2025

**TikZ**

PGF

Version 3.1.10

6

13:30

14:15

7

14:20

15:05

8

15:15

16:00

**expl3**

The L<sup>A</sup>T<sub>E</sub>X Project

9

16:05

16:50

10

18:30

19:15

**Keep on T<sub>E</sub>Xing**

Stanford University  
Donald E. Knuth

11

19:20

20:05

12

20:10

20:55

Programme Duration: 09 / 2021 – 07 / 2025

## A The Source Code

Start the optionlist package for l3docstrip.

```

1 <*package>
2 <@@=ltbl>
3 \ProvidesExplPackage {litetable} {2026-02-07} {v3.9A}
4   {A Colorful Timetable Design}
5 \RequirePackage{tikz}

```

Warning Broadcast

```

6 \cs_new_protected:Npn \__ltbl_msg_new:nn #1#2
7   { \msg_new:nnn { litetable } {#1} {#2} }
8 \cs_new_protected:Npn \__ltbl_msg_warning:n #1
9   { \msg_warning:nn { litetable } {#1} }
10 \__ltbl_msg_new:nn { course }
11   { \exp_not:N \course ~ box(s) ~ exceed ~ workdays ~ were ~ ignored }

```

Handle  $\langle left \rangle \rightarrow \langle right \rangle$  data structures (by [Lijun Guo](#))

```

\__ltbl_get_left:nN
\__ltbl_get_left:eN
\__ltbl_get_right:nN
\__ltbl_get_right:eN
12 \cs_new_protected_nopar:Npn \__ltbl_get_left:nN #1#2
13   {
14     \group_begin: \seq_set_split:Nnn \l__ltbl_tmpa_seq { -> } {#1}
15     \exp_args:NNNe \group_end:
16     \tl_set:Nn #2 { \seq_item:Nn \l__ltbl_tmpa_seq { 1 } }
17   }
18 \cs_new_protected_nopar:Npn \__ltbl_get_right:nN #1#2
19   {
20     \group_begin: \seq_set_split:Nnn \l__ltbl_tmpa_seq { -> } {#1}
21     \exp_args:NNNe \group_end:
22     \tl_set:Nn #2 { \seq_item:Nn \l__ltbl_tmpa_seq { 2 } }
23   }
24 \cs_generate_variant:Nn \__ltbl_get_left:nN { eN }
25 \cs_generate_variant:Nn \__ltbl_get_right:nN { eN }

```

(End of definition for  $\__ltbl\_get\_left:nN$  and  $\__ltbl\_get\_right:nN$ .)

### A.1 User's Interface

$\l\_ltbl\_textwidth\_dim$  Dimensions for the physical width and height of the timetable and margin, controlled by  $\l\_@@\_scale\_fp$  in package option.

```

\l__ltbl_textheight_dim
\l__ltbl_reswidth_dim
\l__ltbl_resheight_dim
26 \dim_new:N \l__ltbl_textwidth_dim
27 \dim_new:N \l__ltbl_textheight_dim
28 \dim_new:N \l__ltbl_reswidth_dim
29 \dim_new:N \l__ltbl_resheight_dim
30 \keys_define:nn { litetable / pkgoption }
31   {
32     scale .fp_set:N = \l__ltbl_scale_fp,
33     scale .initial:n = 1.0,
34     unknown .code:n = \__ltbl_unknown_option:n {#1}
35   }

```

(End of definition for  $\l\_ltbl\_textwidth\_dim$  and others.)

$\__ltbl\_unknown\_option:n$  Handel the unknown options.

```

\g__ltbl_base_options_clist 36 \clist_new:N \g__ltbl_base_options_clist
37 \cs_new_protected_nopar:Npn \__ltbl_unknown_option:n #1
38 {
39   \tl_if_empty:nTF {#1}
40   {
41     \clist_gput_right:NV
42     \g__ltbl_base_options_clist \l_keys_key_str
43   }
44   {
45     \exp_args:NNx
46     \clist_gput_right:Nn \g__ltbl_base_options_clist
47     { \l_keys_key_str = \exp_not:n {#1} }
48   }
49 }

```

(End of definition for \\_\_ltbl\_unknown\_option:n and \g\_\_ltbl\_base\_options\_clist.)

Process the package option.

```

59 \ProcessKeyOptions [ litetable / pkgoption ]
59 \dim_gset:Nn \l__ltbl_textwidth_dim
59 { \fp_eval:n { \l__ltbl_scale_fp } \paperwidth }
59 \dim_gset:Nn \l__ltbl_textheight_dim
59 { \fp_eval:n { \l__ltbl_scale_fp } \paperheight }
59 \dim_gset:Nn \l__ltbl_reswidth_dim
59 { \fp_eval:n { 1 - \l__ltbl_scale_fp } \paperwidth /2 }
59 \dim_gset:Nn \l__ltbl_resheight_dim
59 { \fp_eval:n { 1 - \l__ltbl_scale_fp } \paperheight/2 }

```

**\weeklist** Set a list of working days and the width of each column at the top of the timetable.

```

59 \NewDocumentCommand \weeklist { O{} m O{} }
60 {
61   \keys_set:nn { litetable / weeklist } { #1, #3 }
62   \__ltbl_weeklist:n {#2}
63 }

```

Key-value definitions for the \weeklist command.

```

\l__ltbl_weeklist_format_tl 64 \keys_define:nn { litetable / weeklist }
\l__ltbl_weeklist_sep_tl 64 {
65   format .tl_set:N = \l__ltbl_weeklist_format_tl,
66   format .initial:n = \bfseries,
67   sep .tl_set:N = \l__ltbl_weeklist_sep_tl
68 }
69 }

```

(End of definition for \weeklist, \l\_\_ltbl\_weeklist\_format\_tl, and \l\_\_ltbl\_weeklist\_sep\_tl. This function is documented on page 1.)

**\timelist** Set the time list on the left side of the timetable.

```

70 \NewDocumentCommand \timelist { O{} m O{} }
71 {
72   \keys_set:nn { litetable / timelist } { #1, #3 }
73   \__ltbl_timelist:n {#2}
74 }

```

Key-value definitions for the `\timelist` command.

```

\l__ltbl_timelist_numformat_tl 75 \keys_define:nn { litetable / timelist }
\l__ltbl_timelist_timeformat_tl 76 {
\l__ltbl_timelist_hidetime_bool 77   numformat .tl_set:N = \l__ltbl_timelist_numformat_tl,
78   numformat .initial:n = \ttfamily \bfseries,
79   timeformat .tl_set:N = \l__ltbl_timelist_timeformat_tl,
80   timeformat .initial:n = \ttfamily,
81   hidetime .bool_set:N = \l__ltbl_timelist_hidetime_bool,
82   hidetime .initial:n = false,
83   hidetime .default:n = true
84 }

```

(End of definition for `\timelist` and others. This function is documented on page 2.)

`litetable (env)` Create a blank timetable frame.

```

85 \NewDocumentEnvironment { litetable } { 0{} m 0{} }
86 {
87   \clearpage \thispagestyle{empty}
88   \group_begin:
89   \keys_set:nn { litetable / frame } { #1, #3 }
90   \tikzpicture [ remember ~ picture, overlay ]
91     \l__ltbl_maketable:n {#2}
92 } { \endtikzpicture \group_end: \clearpage }

```

Key-value definitions for the `litetable` command.

```

\l__ltbl_bg_color_tl 93 \keys_define:nn { litetable / frame }
\l__ltbl_hline_type_tl 94 {
\l__ltbl_bg_sem_tl 95   color .tl_set:N = \l__ltbl_bg_color_tl,
96   color .initial:n = gray,
97   hline .tl_set:N = \l__ltbl_hline_type_tl,
98   hline .initial:n = solid,
99   sem .tl_set:N = \l__ltbl_bg_sem_tl,
100   unknown .code:n = \tl_if_novalue:nF {#1}
101     { \tl_set_eq:NN \l__ltbl_bg_color_tl \l_keys_key_tl }
102 }

```

(End of definition for `\l__ltbl_bg_color_tl`, `\l__ltbl_hline_type_tl`, and `\l__ltbl_bg_sem_tl`.)

**`\course`** Add course boxes on the current workday

```

103 \NewDocumentCommand \course { 0{} m 0{} m 0{} }
104 {
105   \group_begin:
106   \bool_lazy_any:nTF
107     {
108       {
109         \int_compare_p:nNn { \l__ltbl_weekday_int } >
110         { \clist_count:N \l__ltbl_week_clist }
111       }
112       { \int_compare_p:nNn {#2} > { \clist_count:N \l__ltbl_time_clist } }
113       { \int_compare_p:nNn {#4} > { \clist_count:N \l__ltbl_time_clist } }
114     } { \l__ltbl_msg_warning:n { course } }
115     {
116       \keys_set:nn { litetable / course } { #1, #3, #5 }
117       \int_compare:nNnTF {#2} < {#4}

```



```

118         { \l__ltbl_course_box_aux:nn {#2} {#4} }
119         { \l__ltbl_course_box_aux:nn {#4} {#2} }
120     }
121     \group_end:
122 }

```

Key-value definitions for the `\course` command.

```

\l__ltbl_course_color_tl
\l__ltbl_course_subject_tl
\l__ltbl_course_lecture_tl
\l__ltbl_course_location_tl
\l__ltbl_course_comment_tl
123 \keys_define:nn { litetable / course }
124 {
125     color .tl_set:N = \l__ltbl_course_color_tl,
126     color .initial:n = black,
127     subject .tl_set:N = \l__ltbl_course_subject_tl,
128     lecture .tl_set:N = \l__ltbl_course_lecture_tl,
129     location .tl_set:N = \l__ltbl_course_location_tl,
130     comment .tl_set:N = \l__ltbl_course_comment_tl,
131     unknown .code:n = \tl_if_novalue:nF {#1}
132     { \tl_set_eq:NN \l__ltbl_course_color_tl \l_keys_key_tl }
133 }

```

(End of definition for `\course` and others. This function is documented on page 2.)

**\more** Add a comment at the southwest corner of the timetable.

```

134 \NewDocumentCommand \more { m }
135 {
136     \node [ yshift = .5\l__ltbl_time_vunit_dim, left = 1ex,
137             darkgray, font = \small \bfseries
138             ] at ([shift =
139                 {(-\l__ltbl_reswidth_dim, \l__ltbl_resheight_dim)}
140                 ]current ~ page.south ~ east) {#1};
141 }

```

(End of definition for `\more`. This function is documented on page 2.)

**\newday** Move the next course boxes right  $\langle integral \text{ value} \rangle$  working days.

```

142 \NewDocumentCommand \newday { 0{1} } { \int_add:Nn \l__ltbl_weekday_int {#1} }
143 \int_new:N \l__ltbl_weekday_int
144 \int_set:Nn \l__ltbl_weekday_int { 1 }

```

(End of definition for `\newday`. This function is documented on page 2.)

## A.2 Internal Auxiliary

`\l__ltbl_week_ratio_clist` The ratios of every working days, the accumulation of the ratios of every working days, the sequence number of every working days, the horizontal width unit of the timetable.

```

\l__ltbl_week_accum_clist
\l__ltbl_week_num_fp
\l__ltbl_week_hunit_dim
145 \clist_new:N \l__ltbl_week_ratio_clist
146 \clist_new:N \l__ltbl_week_accum_clist
147 \fp_new:N \l__ltbl_week_num_fp
148 \dim_new:N \l__ltbl_week_hunit_dim

```

(End of definition for `\l__ltbl_week_ratio_clist` and others.)

`\_l\_tbl\_weeklist:n` Define the auxiliary command of `\weeklist`.

```

149 \cs_new_protected_nopar:Npn \_l\_tbl\_weeklist:n #1
150 {
151   \clist_set:Nn \l\_tbl\_week\_clist {#1}
152   \exp_args:NNf \clist_map_inline:Nn \l\_tbl\_week\_clist
153     {
154       \_l\_tbl\_get\_right:eN {##1} \l\_tbl\_tmpb\_tl
155       \clist\_put\_right:Ne \l\_tbl\_week\_ratio\_clist { \l\_tbl\_tmpb\_tl }
156     }
157   \int\_step\_inline:nn { \clist\_count:N \l\_tbl\_week\_clist }
158     {
159       \clist\_clear:N \l\_tbl\_week\_accumtmp\_clist
160       \int\_step\_inline:nn {##1}
161       {
162         \clist\_put\_right:Ne \l\_tbl\_week\_accumtmp\_clist
163           { \clist\_item:Nn \l\_tbl\_week\_ratio\_clist {####1} }
164       }
165       \clist\_put\_right:Ne \l\_tbl\_week\_accum\_clist
166         { \fp\_eval:n { \clist\_use:Nn \l\_tbl\_week\_accumtmp\_clist { + } } }
167     }
168   \fp\_set:Nn \l\_tbl\_week\_num\_fp
169     {
170       \clist\_item:Nn \l\_tbl\_week\_accum\_clist
171         { \clist\_count:N \l\_tbl\_week\_clist }
172     }
173   \dim\_set:Nn \l\_tbl\_week\_hunit\_dim
174     { \fp\_eval:n { 14/\l\_tbl\_week\_num\_fp/15 } \l\_tbl\_textwidth\_dim }
175 }

```

*(End of definition for `\_l\_tbl\_weeklist:n`.)*

`\l\_tbl\_time\_num\_int` The sequence number of the time list, and the vertical gap between the start and end time.  
`\l\_tbl\_time\_vunit\_dim`

```

176 \int\_new:N \l\_tbl\_time\_num\_int
177 \dim\_new:N \l\_tbl\_time\_vunit\_dim

```

*(End of definition for `\l\_tbl\_time\_num\_int` and `\l\_tbl\_time\_vunit\_dim`.)*

`\_l\_tbl\_timelist:n` Define the auxiliary command of `\timelist`.

```

178 \cs_new_protected_nopar:Npn \_l\_tbl\_timelist:n #1
179 {
180   \clist\_set:Nn \l\_tbl\_time\_clist {#1}
181   \int\_set:Nn \l\_tbl\_time\_num\_int { \clist\_count:N \l\_tbl\_time\_clist }
182   \dim\_set:Nn \l\_tbl\_time\_vunit\_dim
183     { \fp\_eval:n { 1/(2\l\_tbl\_time\_num\_int + 3.5) } \l\_tbl\_textheight\_dim }
184 }

```

*(End of definition for `\_l\_tbl\_timelist:n`.)*

`\l\_tbl\_timelist\_shift\_dim` Store the vertical shift of the sequence number of the time list.

```

185 \dim\_new:N \l\_tbl\_timelist\_shift\_dim

```

*(End of definition for `\l\_tbl\_timelist\_shift\_dim`.)*

\\_l\\_tbl\\_maketable:n Define the auxiliary command of the litetable environment.

```

186 \cs_new_protected_nopar:Npn \_l\_tbl\_maketable:n #1
187 {
188   \fill [ \l\_tbl\_bg\_color\_tl!5 ]
189     ([shift =
190       {(\l\_tbl\_reswidth\_dim, -\l\_tbl\_resheight\_dim)}
191       ]current ~ page.north ~ west) rectangle +
192     (\l\_tbl\_textwidth\_dim, -1.5\l\_tbl\_time\_vunit\_dim)
193     node [ midway, black, font = \huge \bfseries ] {#1};
194   \tl\_if\_empty:NF \l\_tbl\_bg\_sem\_tl
195   {
196     \node [ shift = {(-.02\paperwidth, -.75\l\_tbl\_time\_vunit\_dim)},
197             left, rectangle, fill = DarkBlue!10, text = DarkBlue!60,
198             inner ~ sep = 2ex, rounded ~ corners = 8pt, font = \large
199             ] at ([shift =
200               {(-\l\_tbl\_reswidth\_dim, -\l\_tbl\_resheight\_dim)}
201               ]current ~ page.north ~ east) { \l\_tbl\_bg\_sem\_tl };
202   }
203   \int\_step\_inline:nnnn { 0 } { 2 } { \l\_tbl\_time\_num\_int }
204   {
205     \bool\_lazy\_and:nnTF
206     { \int\_if\_even\_p:n { \l\_tbl\_time\_num\_int } }
207     { \int\_compare\_p:nNn { ##1 } = { \l\_tbl\_time\_num\_int } }
208     {
209       \filldraw [ fill = \l\_tbl\_bg\_color\_tl!5, thick,
210                 draw = gray, \l\_tbl\_hline\_type\_tl ]
211       ([shift = {(
212         {-.4pt + \l\_tbl\_reswidth\_dim},
213         {\fp\_eval:n { -2 * ##1 - 2.5 } \l\_tbl\_time\_vunit\_dim
214           - \l\_tbl\_resheight\_dim}})
215       ]current ~ page.north ~ west
216       ) rectangle
217       ([shift =
218         {(.4pt - \l\_tbl\_reswidth\_dim, .4pt + \l\_tbl\_resheight\_dim)}
219         ]current ~ page.south ~ east);
220     }
221     {
222       \filldraw [ fill = \l\_tbl\_bg\_color\_tl!5, thick,
223                 draw = gray, \l\_tbl\_hline\_type\_tl ]
224       ([shift = {(
225         {-.4pt + \l\_tbl\_reswidth\_dim},
226         {\fp\_eval:n { -2 * ##1 - 2.5 } \l\_tbl\_time\_vunit\_dim
227           - \l\_tbl\_resheight\_dim}})
228       ]current ~ page.north ~ west
229       ) rectangle +
230       (\l\_tbl\_textwidth\_dim + .8pt, -2\l\_tbl\_time\_vunit\_dim);
231     }
232   }
233   \bool\_if:NTF \l\_tbl\_timelist\_hidetime\_bool
234   {
235     \dim\_set:Nn \l\_tbl\_timelist\_shift\_dim
236     { -1.5\l\_tbl\_time\_vunit\_dim }
237   }
238   {

```

```

239     \dim_set:Nn \l__ltbl_timelist_shift_dim
240     { -\l__ltbl_time_vunit_dim }
241   }
242   \int_step_inline:nn { \l__ltbl_time_num_int }
243   {
244     \node [ darkgray!80, shift =
245       { (
246         \l__ltbl_textwidth_dim/30,
247         -2 * ##1 \l__ltbl_time_vunit_dim +
248         \l__ltbl_timelist_shift_dim
249       ) }, font = \large \l__ltbl_timelist_numformat_tl
250     ] at ([shift =
251       { (\l__ltbl_reswidth_dim, -\l__ltbl_resheight_dim) }
252       ]current ~ page.north ~ west) {##1};
253   }
254   \bool_if:NF \l__ltbl_timelist_hidetime_bool
255   {
256     \int_step_inline:nn { \clist_count:N \l__ltbl_time_clist }
257     {
258       \__ltbl_get_left:eN { \clist_item:Nn \l__ltbl_time_clist {##1} }
259       \l__ltbl_tmpa_tl
260       \__ltbl_get_right:eN { \clist_item:Nn \l__ltbl_time_clist {##1} }
261       \l__ltbl_tmpb_tl
262       \node [ gray, align = center, shift =
263         { (
264           \l__ltbl_textwidth_dim/30,
265           \fp_eval:n { -1.85 - 2 * ##1 } \l__ltbl_time_vunit_dim
266         ) }, font = \l__ltbl_timelist_timeformat_tl
267       ] at ([shift =
268         { (\l__ltbl_reswidth_dim, -\l__ltbl_resheight_dim) }
269         ]current ~ page.north ~ west)
270       { \l__ltbl_tmpa_tl \l__ltbl_tmpb_tl };
271     }
272   }
273   \int_step_inline:nn { \clist_count:N \l__ltbl_week_clist }
274   {
275     \int_compare:nNnF {##1} = { \clist_count:N \l__ltbl_week_clist }
276     {
277       \node [ shift =
278         { (\fp_eval:n
279           {
280             14 * \clist_item:Nn \l__ltbl_week_accum_clist {##1}/
281             \l__ltbl_week_num_fp/15 + 1/15
282           } \l__ltbl_textwidth_dim, -2\l__ltbl_time_vunit_dim
283         ) }, darkgray, font = \ttfamily
284       ] at ([shift =
285         { (\l__ltbl_reswidth_dim, -\l__ltbl_resheight_dim) }
286         ]current ~ page.north ~ west)
287       { \l__ltbl_weeklist_sep_tl };
288     }
289     \__ltbl_get_left:eN { \clist_item:Nn \l__ltbl_week_clist {##1} }
290     \l__ltbl_tmpa_tl
291     \node [ shift =
292       { (\fp_eval:n

```

```

293         {
294             14(
295                 \clist_item:Nn \l__ltbl_week_accum_clist {##1} -
296                 \clist_item:Nn \l__ltbl_week_ratio_clist {##1}/2
297                 )/\l__ltbl_week_num_fp/15 + 1/15
298             } \l__ltbl_textwidth_dim, -2\l__ltbl_time_vunit_dim
299         ), font = \large \l__ltbl_weeklist_format_tl
300     ] at ([shift =
301         {(\l__ltbl_reswidth_dim, -\l__ltbl_resheight_dim)}
302         ]current ~ page.north ~ west) { \l__ltbl_tmpa_tl };
303 }
304 \draw [ gray, very ~ thick ]
305     ([shift =
306         {({-.4pt +\l__ltbl_reswidth_dim}, {-.4pt -\l__ltbl_resheight_dim})}
307         ]current ~ page.north ~ west) rectangle
308     ([shift =
309         {({.4pt - \l__ltbl_reswidth_dim}, {.4pt + \l__ltbl_resheight_dim})}
310         ]current ~ page.south ~ east);
311 }

```

(End of definition for \\_\_ltbl\_maketable:n.)

\l\_\_ltbl\_course\_shift\_dim Store the vertical shift of the course subject in course box.

```

312 \dim_new:N \l__ltbl_course_shift_dim

```

(End of definition for \l\_\_ltbl\_course\_shift\_dim.)

\\_\_ltbl\_course\_box\_aux:nn Define the auxiliary command of \course.

```

313 \cs_new_protected_nopar:Npn \__ltbl_course_box_aux:nn #1#2
314 {
315     \begin{scope}
316         \clip [ preaction = { draw, ultra ~ thick, \l__ltbl_course_color_tl!60 },
317                 preaction = { fill, \l__ltbl_course_color_tl!10 },
318                 rounded ~ corners = 8pt ]
319         ([shift =
320             {(
321                 \fp_eval:n
322                 {
323                     \clist_item:Nn \l__ltbl_week_accum_clist
324                     { \l__ltbl_weekday_int } -
325                     \clist_item:Nn \l__ltbl_week_ratio_clist
326                     { \l__ltbl_weekday_int }
327                     } \l__ltbl_week_hunit_dim + \l__ltbl_textwidth_dim/15
328                     + \l__ltbl_reswidth_dim + 1.2pt,
329                     \fp_eval:n { -.5 - 2 * #1 } \l__ltbl_time_vunit_dim
330                     - \l__ltbl_resheight_dim - 1.2pt
331                 }}]current ~ page.north ~ west) rectangle +
332         (
333             \clist_item:Nn \l__ltbl_week_ratio_clist
334             { \l__ltbl_weekday_int } \l__ltbl_week_hunit_dim - 2.4pt,
335             \fp_eval:n { 2(#1 - #2 - 1) } \l__ltbl_time_vunit_dim + 2.4pt
336         );
337         \fill [ \l__ltbl_course_color_tl!60 ]
338         ([shift =
339             {(

```

```

340 \fp_eval:n
341 {
342   \clist_item:Nn \l__ltbl_week_accum_clist
343   { \l__ltbl_weekday_int } -
344   \clist_item:Nn \l__ltbl_week_ratio_clist
345   { \l__ltbl_weekday_int }
346   } \l__ltbl_week_hunit_dim
347   + \l__ltbl_reswidth_dim + \l__ltbl_textwidth_dim/15,
348   \fp_eval:n { -.5 - 2 * #1 } \l__ltbl_time_vunit_dim
349   - \l__ltbl_resheight_dim
350 )}]current ~ page.north ~ west) rectangle +
351 (
352   \clist_item:Nn \l__ltbl_week_ratio_clist
353   { \l__ltbl_weekday_int } \l__ltbl_week_hunit_dim,
354   -\l__ltbl_time_vunit_dim/2
355 );
356 \end{scope}
357 \int_compare:nNnTF {#1} = {#2}
358 {
359   \bool_lazy_and:nnTF
360   { \tl_if_empty_p:N \l__ltbl_course_location_tl }
361   { \tl_if_empty_p:N \l__ltbl_course_lecture_tl }
362   { \tl_set:Nn \l__ltbl_course_anchor_tl { } }
363   { \tl_set:Nn \l__ltbl_course_anchor_tl { above } }
364 \node
365 [ \l__ltbl_course_anchor_tl, \l__ltbl_course_color_tl!60, shift =
366   {(
367     \fp_eval:n
368     {
369       \clist_item:Nn \l__ltbl_week_accum_clist
370       { \l__ltbl_weekday_int } -
371       \clist_item:Nn \l__ltbl_week_ratio_clist
372       { \l__ltbl_weekday_int }/2
373       } \l__ltbl_week_hunit_dim + \l__ltbl_textwidth_dim/15,
374       \fp_eval:n { -1.75 - #1 - #2 } \l__ltbl_time_vunit_dim
375     )}, align = center, font = \bfseries
376   ] at ([shift =
377     {(\l__ltbl_reswidth_dim, -\l__ltbl_resheight_dim)}
378     ]current ~ page.north ~ west) { \l__ltbl_course_subject_tl };
379 \bool_lazy_or:nnTF
380 { \tl_if_empty_p:N \l__ltbl_course_location_tl }
381 { \tl_if_empty_p:N \l__ltbl_course_lecture_tl }
382 { \tl_set:Nn \l__ltbl_s@course_sep_tl { } }
383 { \tl_set:Nn \l__ltbl_s@course_sep_tl { ,~ } }
384 \node
385 [ shift =
386   {(
387     \fp_eval:n
388     {
389       \clist_item:Nn \l__ltbl_week_accum_clist
390       { \l__ltbl_weekday_int } -
391       \clist_item:Nn \l__ltbl_week_ratio_clist
392       { \l__ltbl_weekday_int }/2
393       } \l__ltbl_week_hunit_dim + \l__ltbl_textwidth_dim/15,

```

# 索引

意大利體嘅數字表示描述對應索引項嘅頁碼；帶下劃綫嘅數字表示定義對應索引項嘅代碼行號；羅馬字體嘅數字表示使用對應索引項嘅代碼行號。

C		M	
\course	2	\more	2
E		N	
environments:		\newday	2
litetable	1	T	
		\timelist	1, 2
L		W	
litetable (env.)	1	\weeklist	1