

The LiteTable Template

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Abstract

This is the document for LiteTable template, which provides a beautiful design of class schedule with colorful course blocks.

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*<https://github.com/xiamyphys/litetable>

1 Introduction

1.1 The purpose of this template

This template provides a beautiful design of class schedule with colorful course blocks.

If you meet bugs when using this template, or you have better suggestions or ideas, or you want to participate in the development of the template or other templates by me, welcome to contact via email xiamyphys@gmail.com.

Also, you can join my \LaTeX Template Discussion [QQ Group: 760570712](#) to communicate with me and get the insider preview edition of the template.

1.2 Packages required

This template is based on the template `standalone`. And it requires `tikz` package to plot some graphics, `kvoptions` and `etoolbox` packages to provide global options, `expl3` package to support `timelist` array, `xeCJK` package to support the **Chinese, Simplified** language and `fontawesome5` package to provide a set of beautiful icons.

1.3 Installing `LiteTable` and loading it

For portable version, simply download latest `litetable.cls` file from [GitHub](#) or [CTAN](#) and save it under your working directory. This way of installation is simple and convenient, but you have to manually update `.cls` now and then.

However, I strongly suggest that you should use terminal/cmd to implement the commands to update all the packages (and install this package) to the latest version or switch to portable version instead

```
sudo tlmgr update --self
sudo tlmgr update --all
```

If you are in some areas with awful Internet environment (such as GFW), you can choose proper mirror source or use other means¹. To learn more, please refer to [How do I update my \$\text{\LaTeX}\$ distribution?](#)

The template provides four options, `style`, `direction` and `font`. Just add the modes of the options you want separately in the square bracket of the command `\documentclass[]{litetable}` in your `.tex` file.

1.4 Compatibility

The test environments are macOS + MacTeX 2023 / Overleaf and they all work fine for \LaTeX compiler, Windows, Linux and Unix platforms compatibility unknown.

¹Please comply with local network regulations.

2 Global Options of LiteTable

```
\documentclass[options]{litetable}
```

2.1 The **style** option

This option has two modes, **round** and **sharp**, which can make the course block's corners be round or sharp, and the default mode is sharp.

2.2 The **direction** option

This option has two modes, **portrait** and **landscape**, which can make the timetable displayed portrait or horizontally.

2.3 The **font** option

This option has two modes, **times** and **libertinus**, which can make the font to be “Times New Roman” or “Libertinus”, and the default mode is “Times New Roman”.²

3 Commands of LiteTable

3.1 The **makeframe** command

```
\makeframe{Timetable -- Semester 5}
```

This command can create an empty class schedule with the title “Timetable – Semester 5”.

3.2 The **weeklist** command

```
\weeklist{
  \bfseries\textcolor{W1}{\faIcon{moon}~Monday},
  \bfseries\textcolor{W2}{\faIcon{fire}~Tuesday},
  \bfseries\textcolor{W3}{\faIcon{water}~Wednesday},
  \bfseries\textcolor{W4}{\faIcon{tree}~Thursday},
  \bfseries\textcolor{W5}{\faIcon{coins}~Friday}
}
```

This command can add workdays to the top side of the timetable, and you can also adjust the format that you like, such as name, color and even the logo³ before it.

The timetable can automatically generate the corresponding number of columns based on the number of workdays you enter. For example, the code above has 5 workdays, a 5-column timetable will be generated.

²Please ensure that your computer has been already installed the font “Libertinus” when using this option.

³Supports by the **fontawesome5** package.

3.3 The `timelist` `classnum` command

```
\timelist{
  8:05,8:55,10:00,10:50,11:40,13:30,14:20,15:15,16:05,18:30,19:20,20:10;
  8:50,9:40,10:45,11:35,12:25,14:15,15:05,16:00,16:50,19:15,20:05,20:55
}

\classnum{14}
```

The command `timelist` can add time to the left side of the timetable, and the first line of the content is the start time of the classes while the second line of the content is the end time of the classes, each time separates with a comma (,), the first line and the second line separates with a semicolon (;).

The timetable can automatically generate the corresponding number of rows based on the number of time groups you enter. For example, the code above has 12 groups of times, a 12-row timetable will be generated.

The command `classnum` can directly assign the number of rows on the timetable you want without adding time to the left side of the timetable, and there will only be a series of numbers that *aligned vertically to the center of every line*.

The following table shows the effects brought about by the usage of the two commands.

TABLE 1. Usage of commands `timelist` and `classnum`.

<div><div><div><div></div><div><code>timelist</code></div></div><div><code>classnum</code></div></div></div>	To use	Not to use
To use	The effect is like the description of command <code>timelist</code> But the number of rows will be assigned by <code>classnum</code>	The effect is like the description of command <code>classnum</code> before
Not to use	The effect is like the description of command <code>timelist</code> before	The effect is like the description of command <code>timelist</code> before with <i>default format of 12 lines</i>

- Assume that `timelist` has 12 groups of times, and `classnum` passed a value of 14, then the left side of the timetable will have only 1 – 12 rows with time while the last two rows without time the label of them is still upward, not vertically aligned in the center.
- Assume that `timelist` has 14 sets of times, and `classnum` passes a value of 12, then only 12 rows of timetables will be generated with time on the left side of each row, that is, the last two sets of data in `timelist` will be invalid.

3.4 The **weeks** command

```
\weeks{Week 1 -- 16}
```

This command can assign the default value of the 7th variable of the command **course**.

3.5 The **course** command

```
\course[H1]{8}{9}{Group Theory}{Building 6 · 211}{Li Ge}[Week 1 -- 16]
```

There are 7 variables in this command.

- The 1st one is the color of the class that you want, from “H1” to “H9”, it’s optional and the default value is “H1”.
- The 2nd and 3rd ones is the starting number and ending number of the class.
- The 4th one is the name of the class.
- The 5th one is the address of the class.
- The 6th one is the name of the teacher(s).
- The last one is the start week and end week of the timetable, it’s optional and the default value is the value that you’ve adjusted in the command **weeks** or it will be “Week 1 – 12”.

3.6 The **newday** command

This command can switch the current weekday to the next day, then the course will move right one grid.

3.7 The **more** command

```
\more{ · School Start: 04 / 03 / 2024 · Summer Vacation: 05 / 07 / 2024}
```

This command can add remark at the end of the class schedule.

3.8 The **sticker** command

```
\sticker{favicon}
```

There will be a sticker on the southeast of the page after you add, otherwise it won’t.

3.9 The **(re)rotatepage** command

The **rotatepage** command can change the direction of the timetable temporarily while the **rerotatepage** command can restore it.

4 Known Issue: Resolution exceed

Dimension too large. <recently read> \pgfmath@x

When you choose the **landscape** mode and you've added 7 workdays or more (?although the 'above' occasion will not occur), it will return this error.

This is mainly caused by the reason that *TeX has no built-in floating number representation* (Reference: [How to solve the error 'Dimension too large. <recently read> \pgfmath@x' while doing the calculations in the table](#)).

If one can solve this problem through optimization algorithms or other means, welcome submit your code via GitHub: <https://github.com/xiamyphys/litetable>, or contact me via email xiamyphys@gmail.com.

5 Version History

The design of this course schedule originated from the student course schedule web page⁴ of the [HDUHelp](#) in [Hangzhou Dianzi University](#)⁵. The layout is very beautiful and then I used \LaTeX to imitate that style and made a class schedule template to share with everyone.

Version 1.0 was finished on 1 September, 2023 and released on [\TeX Studio](#) (Hangzhou) and [Xiaohongshu](#), where won the favor of many people.

Version 2.0a was finished developing on 1 November, 2023 and released on [\TeX Studio](#) (Xiaoshan, Hangzhou) and [Xiaohongshu](#). This version used `.cls` files to make the `main.tex` file more concise. Also, this version has added a global option to choose whether the corners of the "course Block" to be round or sharp. And this version support adds multiply class schedules in one `.tex` file.

Version 2.1a was finished developing on 5 November, 2023. Supports the `libertinus` font.

Version 2.2a was finished developing on 31 January, 2024. This version fixed the bug of resolution exceeded, changed paper type to US letter and support custom course start time and end time.

Version 2.3a was finished developing on 2 February, 2024. This version supports automatically generate the corresponding number of rows based on the number of time groups you enter, and in this version, timetable can be displayed horizontally or portrait as you like.

Version 2.3b was finished developing on 3 February, 2024. This version optimized coordinate calculation and improved compilation speed.

Version 2.4a was finished developing on 24 February, 2024. Happy Lantern Festival! This version supports custom workday display style, and supports hiding time and only showing course program number vertically aligned.

⁴Only those studying at or graduated from Hangzhou Dianzi University can have the permission of access.

⁵https://en.wikipedia.org/wiki/Hangzhou_Dianzi_University

2023/09/01 Update: Version 2.0a

- Supports the course block's corners be round or sharp.
- Supports multiply class schedules in one `.tex` file.

2023/11/05 Update: Version 2.1a

- Supports the libertinus font.

2024/01/31 Update: Version 2.2a

- Fixed the bug of resolution exceeded.
- Changed paper type to US letter.
- Support custom course start time and end time.
- Support add sticker as you like at the southeast of the page.
- Provide simplified Chinese documentation.

2024/02/02 Update: Version 2.3a

- Supports automatically generate the corresponding number of rows based on the number of time groups you enter.
- Timetable can be displayed portrait or horizontally as you like.

2024/02/03 Update: Version 2.3b

- Optimized coordinate calculation and improved compilation speed.

2024/02/24 Update: Version 2.4a

- Supports custom workday display style.
- Supports hiding time and only showing course program number vertically aligned.
- Supports setting default first and last week.

Axia's Timetable – Semester 5

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	Badminton Badminton Court Ys Yu Week 1 – 18			Sensing System Building 6 · North 110 Bx Cai Week 1 – 18	Optical Lens Design Building 6 · North 422 Hao Ying Week 1 – 18	
8:05						
8:50						
2						
8:55						
9:40						
3						
10:00	Lens Design Expt. Building 6 · South 402 Hao Ying Week 5 – 15	Marx's Principles Building 6 · North 320 Yang Wang Week 1 – 18	Laster Principle Building 6 Middle · 301 Hd Mao Week 1 – 18	Quantum Mechanics† Building 6 · Middle 225 Mn Chen & Yuan Li Week 1 – 18	Optoelectronics Building 6 · North 202 Rx Li & Yuan Li Week 1 – 18	
10:45						
4						
10:50						
11:35						
5						
11:40						
12:25						
6						
13:30		OE Detection Tech. Building 6 · North 320 Xf Huang Week 1 – 18	Empl Guide Situ Policy Build 6 · 301 Build 6 · 208 MJH QXR Week 5 – 14	Modern Phys Expt. 2 Building 6 · South Xx Chen Week 5 – 16	Innovative Practice 4 Building 6 · South 302 Ql Huang Week 5 – 16	
14:15						
7						
14:20						
15:05						
8						
15:15						
16:00						
9						
16:05						
16:50						
10						
18:30						
19:15						
11						
19:20						
20:05						
12						
20:10						
20:55						

· Hangzhou Asian Games: 23 / 09 / 2023 – 08 / 10 / 2023 · School Starts: 11 / 09 / 2023 · Winter Vacation: 26 / 01 / 2024

Axia's Timetable – Semester 6

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1						
8:05						
8:50						
2						
8:55						
9:40						
3						
10:00						
10:45						
4						
10:50						
11:35						
5						
11:40						
12:25						
6						
13:30						
14:15						
7						
14:20						
15:05						
8						
15:15						
16:00						
9						
16:05						
16:50						
10						
18:30						
19:15						
11						
19:20						
20:05						

· School Start: 04 / 03 / 2024 · Summer Vacation: 05 / 07 / 2024

Axia's Timetable – Semester 5

	🌙 星期一	🌿 星期二	☎ 星期三	🌲 星期四	🌀 星期五	🔺 星期六				
1	羽毛球 羽毛球场 Ys Yu Week 1 – 18			智能传感系统 第 6 教研楼 · 北 110 Bx Cai Week 1 – 18	光学镜头设计 第 6 教研楼 · 北 422 Hao Ying Week 1 – 18					
8:05										
8:50										
2										
8:55										
9:40										
3										
10:00										
10:45										
4	光学镜头设计实验 第 6 教研楼 · 南 402 Hao Ying Week 5 – 15	马克思主义原理 第 6 教研楼 · 北 320 Yang Wang Week 1 – 18	激光原理 第 6 教研楼 · 中 301 Hd Mao Week 1 – 18	高等量子力学 第 6 教研楼 · 中 225 Mn Chen & Yuan Li Week 1 – 18	光电子学 第 6 教研楼 · 北 202 Rx Li & Yuan Li Week 1 – 18					
10:50										
11:35										
5										
11:40										
12:25										
6										
13:30										
14:15										
7										
14:20										
15:05										
8										
15:15										
16:00										
9										
16:05										
16:50										
10										
18:30										
19:15										
11										
19:20										
20:05										
12										
20:10										
20:55										





Axia's Timetable – Semester 6

🌙 星期一		🔥 星期二		🌊 星期三		🌲 星期四		🌀 星期五	
1 8:05 8:50				工程制图 第 7 教研楼 · 中 3012 Hc Wang Week 1 – 16		跨文化交际 第 3 教研楼 · 422 Cl Zuo Week 1 – 16		光电显示技术 第 7 教研楼 · 中 3012 Wt Su Week 1 – 16	
2 8:55 9:40						无线电测向 东边田径场 Ys Yu Week 1 – 16			
3 10:00 10:45									
4 10:50 11:35									
5 11:40 12:25									
6 13:30 14:15									
7 14:20 15:05		凝聚态物理导论 第 6 教研楼 · 中 225 Mn Chen Week 1 – 16				固体物理 第 6 教研楼 · 北 408 Kw Sun Week 1 – 16		研究生组会 第 6 教研楼 · 中 Yuan Li Week 1 – 16	
8 15:15 16:00		群论 第 6 教研楼 · 中 211 Li Ge Week 1 – 16		形势与政策 6 第 6 教研楼 · 北 302 Xr Qi Double Week 10 – 16					
9 16:05 16:50									
10 18:30 19:15		介观物理 第 6 教研楼 · 中 211 Yuan Li & Mn Chen Week 1 – 16		高级创业运营仿真 第 4 教研楼 · 411 – 413 Li Zhang Week 1 – 8					
11 19:20 20:05									

