

The nwu-exam class

西北大学试卷排版系统

NWU-Exam Team

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1 核心实现

```
1 (*class)
2 \NeedsTeXFormat{LaTeX2e}
3 \RequirePackage{expl3}
4 \ProvidesExplClass{nwu-exam}{2025/06/01}{0.1}{NWU Exam Class based on expl3}
5
6 % --- 加载基础模块 ---
7 \LoadClass[a4paper,11pt]{article}
8 \RequirePackage{geometry}
9 \RequirePackage{xecjk}
10
11 \ExplSyntaxOn
12 \msg_new:nnn { nwu-exam } { welcome } {
13   NWU~Exam~Class~Loaded~Successfully!
14 }
15 \msg_warning:nn { nwu-exam } { welcome }
16 % --- 任务 1.3: 密封线模块 ---
17 \RequirePackage{eso-pic}
18 \RequirePackage{tikz}
19
20 % 定义密封线绘制函数
21 \cs_new:Nn \nwu_draw_sealed_line: {
22   \AddToShipoutPictureBG{
23     \begin{tikzpicture}[remember picture, overlay]
24       % 设定坐标原点为当前页面的左下角
25       \node [yshift=0cm] at (current-page.south-west) {
26         \begin{tikzpicture}[remember picture, overlay]
27           % 1. 绘制虚线 (距离左边距 2cm)
```

```
28   \draw[dashed, line-width=0.5pt] (2cm, 1cm) -- (2cm, 28cm);  
29  
30 % 2. 绘制密封线文字 (旋转 90 度)  
31 \node[rotate=90, anchor=south] at (1.8cm, 14.85cm) {  
32   \zihao{4} \bfseries 密 封 线  
33 };  
34  
35 % 3. 绘制考生信息栏  
36 \node[rotate=90, anchor=north] at (1.5cm, 14.85cm) {  
37   \zihao{5}  
38   姓名: \underline{\makebox[2cm]{}} \quad  
39   学号: \underline{\makebox[2cm]{}} \quad  
40   专业: \underline{\makebox[2cm]{}}  
41 };  
42 \end{tikzpicture}  
43 };  
44 \end{tikzpicture}  
45 }  
46 }  
47  
48 % 默认启用密封线  
49 \nwu_draw_sealed_line:\ExplSyntaxOff  
50 </class>
```