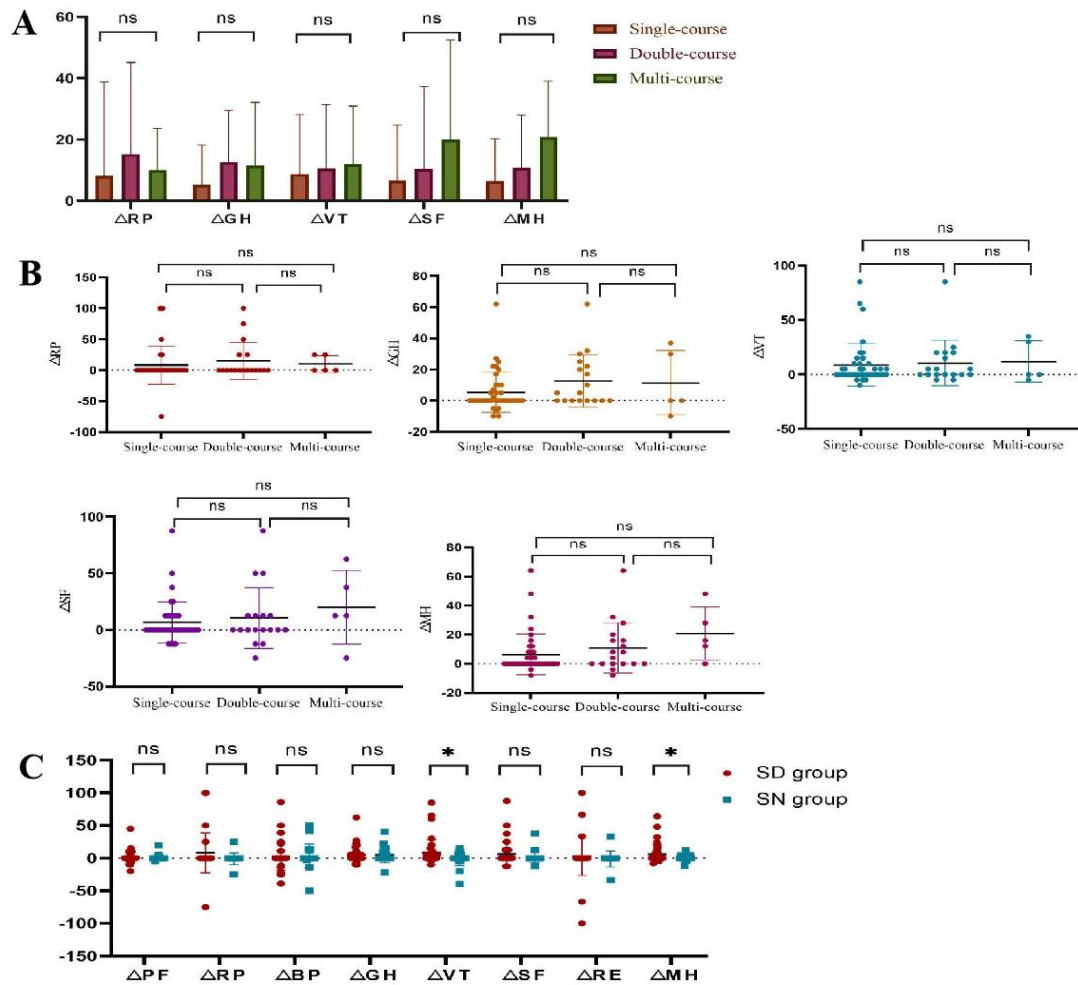


**Supplementary Figure 1 Analysis of inter-group differences in sleep quality changes.** (A) Histogram of improvement in SQ, SL, ST, PQSI total score in different courses; (B) Intergroup analysis of improvement in SQ, SL, ST, PQSI total score in different courses. ns, not significant.



**Supplementary Figure 2 Analysis of inter-group differences in life quality changes.** (A) Histogram of improvement in RP, GH, VT, SF, MH in different courses; (B) Intergroup analysis of improvement in RP, GH, VT, SF, MH in different courses. ns, not significant; (C) Histogram of life quality improvement in short-term group. ns, not significant.