

# High-Precision Seminar Assignment Optimization Results

Pattern ID: 5753 | Total Score: 565.00

Total Students: 112  
Number of Patterns Evaluated: 10000  
Number of Parallel Processes: 8

## Student Satisfaction Statistics:

1st Preference Achieved: 8.0%  
2nd Preference Achieved: 5.4%  
3rd Preference Achieved: 8.0%  
Not Preferred: 78.6%

Seminar	Target	Actual	Total Score	Avg. Satisfaction	1st Pref. Count	Details
A (1.5x)	10	11	82.5	7.50	0	S47(7.5), S75(7.5), S38(7.5), S62(7.5), S1(7.5)... (6 others)
B	10	11	55.0	5.00	0	S70(5.0), S3(5.0), S9(5.0), S57(5.0), S27(5.0)... (6 others)
C	5	8	34.0	4.25	2	S91(5.0), S99(5.0), S16(5.0), S68(5.0), S71(2.0)... (3 others)
D (1.8x)	10	11	93.6	8.51	2	S93(9.0), S10(9.0), S84(9.0), S8(9.0), S45(9.0)... (6 others)
E	7	8	37.0	4.62	1	S79(5.0), S108(5.0), S73(5.0), S101(5.0), S74(5.0)... (3 others)
F	5	6	24.0	4.00	1	S61(5.0), S112(5.0), S104(5.0), S78(5.0), S86(2.0)... (1 others)
G	5	5	19.0	3.80	0	S54(5.0), S46(5.0), S6(5.0), S67(2.0), S29(2.0)
H	5	2	10.0	5.00	0	S72(5.0), S52(5.0)
I	10	9	42.0	4.67	0	S43(5.0), S94(5.0), S66(5.0), S107(2.0), S89(5.0)... (4 others)
J	5	5	19.0	3.80	0	S12(5.0), S36(5.0), S17(2.0), S26(5.0), S19(2.0)
K	5	4	20.0	5.00	1	S111(5.0), S55(5.0), S32(5.0), S24(5.0)
L	5	3	15.0	5.00	0	S64(5.0), S110(5.0), S13(5.0)
M (0.7x)	5	2	4.9	2.45	0	S63(3.5), S103(1.4)
N	5	6	18.0	3.00	0	S98(5.0), S96(5.0), S80(2.0), S30(2.0), S7(2.0)... (1 others)
O (0.5x)	5	4	7.0	1.75	0	S100(2.5), S56(2.5), S109(1.0), S22(1.0)
P	5	6	18.0	3.00	2	S95(5.0), S44(2.0), S58(5.0), S60(2.0), S37(2.0)... (1 others)
Q (1.2x)	10	11	66.0	6.00	0	S83(6.0), S106(6.0), S4(6.0), S87(6.0), S5(6.0)... (6 others)

## Algorithms Used:

- 1. Realistic Preference Distribution Generation

2. **\*\*Greedy Initial Assignment\*\***
3. Local Search Improvement (2-opt & Single Move + Simplified Simulated Annealing)
4. Speedup through Parallel Processing