

How the National Board Establishes Its Pass-Fail Standards for Part III

In the Part III-Clinical Skills examination (CSE), the candidate examines a different patient at each of four 30-minute stations, in the performance of 18 clinical skills.

Although this examination primarily measures psychomotor skills, it contains an assessment of affective (i.e., clinical habits and attitudes) and communication skills, as well as some interpretation of clinical findings.

The items in the assessment are differentially weighted based on their criticality, as determined by subject matter experts. The item criticality weights range from 1- 10 points and are summarized in the Table below. At the same time, the items on CSE are scored dichotomously. That is, candidates receive the full point value for items performed correctly, and no points (zero) for items either performed incorrectly, or omitted.

Rating Scale for Item Criticality- Clinical Skills Examination

Scoring Weight and Significance	Explanation
10 Essential	Essential for satisfactory care; poor performance would result in deficient patient care
9	
8	
7 Very Important	Very likely to affect the quality of patient care; only extraordinary measures could compensate for poor performance
6	
5	
4 Important	Likely to, but would not necessarily, affect the quality of patient care
3	
2	
1 Desirable	Desirable activity, but would not necessarily affect the quality of patient care if done incorrectly, or not at all

The scoring and standard setting methodology are integrated. For each of the 18 skills, a performance threshold is set such that if a candidate “misses” only the most critical item, but performs all other items correctly, the candidate is considered to have performed at a deficit level. This skill threshold is summarized in the following formula.

$$\text{Skill threshold score} = \text{MAX}_{\text{points}} - \text{HIGHEST}_{\text{item_weight}} + 1$$

However, a threshold score is adjusted downward for a skill meeting two of the following three conditions.

- The highest weighted item in the skill <5, (no item is critical, or even very important)
- Number of items >30 (skill is relatively long)
- Initial threshold score in the >90% (possibly excessively high)

For a skill meeting the two conditions, the downward adjustment is iterative, using the formula, until the cutoff score is <90%.

$$\text{Skill threshold score} = \text{MAX}_{\text{points}} - \text{HIGHEST}_{\text{item_weight}} - \text{NEXT_HIGHEST}_{\text{item_weight}} + 1$$

Summing the threshold scores across the 18 clinical skills yields the Part III pass-fail cutoff score. Historically, the Clinical Skills rounded cutoff score has ranged from 80% to 84%. Candidates should be aware that because of the item criticality scoring weights, it is possible that “missing” a relatively small percentage of the items may result in missing a relatively large percentage of the section points.