

SUBJECT EXAMINATION PROGRAM

COMPREHENSIVE BASIC SCIENCE EXAMINATION

SCORE INTERPRETATION GUIDE



NBME® subject examinations provide medical schools with a tool for measuring examinees' understanding of the basic sciences. Although these examinations are designed to be broadly appropriate as part of overall examinee assessment, course objectives vary across schools, and the congruence between subject examination content and course objectives should be considered when interpreting test scores and determining grading standards. Specifically, subject examination scores should not be used alone, but rather in conjunction with other indicators of examinee performance in determination of grades.

CBSE Scores

Because the Comprehensive Basic Science Examination (CBSE) and the United States Medical Licensing Examination® (USMLE®) Step 1 cover very similar content, CBSE performance can be used in conjunction with other information to assess readiness for Step 1. The CBSE score represents an estimate of an examinee's performance on the USMLE® Step 1 if he/she had taken both exams under the same conditions and with the same level of knowledge. Estimated performance based on taking CBSE is not a guarantee of future performance on Step 1. Many factors, including changing levels of knowledge and testing conditions, may result in a Step 1 score that is higher or lower than the estimated score.

Precision of Scores

Measurement error is present on all tests, and the standard error of estimate (SEE) provides an index of the (im)precision of scores. If an examinee tested repeatedly under the same conditions on a different set of items covering the same content, his/her CBSE score would fall within one SEE of the current score two-thirds of the time. The SEE on this exam is 8 points.

Score and Performance Feedback

Summary information on the examinee group tested, examination purpose and number of items scored is provided on each page of the feedback. The [*Roster of CBSE Scores*](#) reports a total test score for each examinee. Reported scores also appear in a comma separated text file that can be downloaded. An [*Examinee Performance Profile*](#), which graphically displays content areas of strength and weakness, is provided for each examinee.

If there were at least 2 examinees, [*CBSE Score Descriptive Statistics*](#) for reported scores are provided along with a [*Frequency Distribution*](#) of the total test score. If there were at least 5 examinees for a single form administration, a detailed [*Content Area Item Analysis Report*](#) summarizing the general content of each item on the exam along with group item performance is provided. Content area item descriptors and group item performance also appear in a file that can be downloaded. If there were at least 5 examinees for a single form administration or 10 examinees for a multiple form administration, a [*Summary Content Area Item Analysis Report*](#) is provided.

If there were at least 15 examinees, a [*School Summary Performance Profile*](#), which graphically displays areas of strength and weakness in each major content area for your specific test administration, is provided.

Norms

Total academic year norms are provided to aid in the interpretation of examinee performance. The norms reflect the performance of first-time taker examinees who took a form with a test purpose code of 'end-of-course', 'end-of-year', or 'other'. The two most recent sets of norms that have been developed for this examination are provided for your convenience and are reported on the CBSE score scale. Norms can also be found on NSP.

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YYYY-YYYY ACADEMIC YEAR NORMS



Interpreting Academic Norms

- Norms are provided to aid in the interpretation of examinee performance.
- They make it possible to compare examinees' scores with the performance of a norm group.
- Norm group characteristics:
 - Examinees from LCME-accredited medical schools who took a form of this examination with a test purpose code of 'end-of-course', 'end-of-year', or 'other' for the first time during the academic years from mm/dd/yyyy through mm/dd/yyyy.

Academic Years	Number of Schools	Number of Examinees	Mean	SD
yyyy-yyyy	67	7,837	185.8	30.2

Using the Table

- To use the table, locate an examinee's score in the column labeled "CBSE Score" and note the entry in the adjacent column labeled "Percentile Ranks." This number indicates the percentage of examinees that scored at or below the examinee's CBSE score.

Percentile Ranks		Percentile Ranks	
CBSE Score	Percentile Ranks	CBSE Score	Percentile Ranks
254 and above	99	185	51
251	99	182	47
248	98	179	43
245	98	176	40
242	97	173	36
239	96	170	33
236	95	167	30
233	94	164	26
230	92	161	23
227	90	158	20
224	89	155	17
221	86	152	15
218	84	149	13
215	82	146	10
212	79	143	8
209	77	140	7
206	74	137	5
203	71	134	4
200	68	131	3
197	65	128	2
194	61	125	1
191	58	122	1
188	54	119 and below	0

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- Norm group characteristics:
 - Examinees from LCME-accredited medical schools who took a form of this examination with a test purpose code of 'end-of-course', 'end-of-year', or 'other' for the first time during the academic years from mm/dd/yyyy through mm/dd/yyyy.

Academic Years	Number of Schools	Number of Examinees	Mean	SD
yyyy-yyyy	83	10,444	180.8	32.6

Using the Table

- To use the table, locate an examinee's score in the column labeled "CBSE Score" and note the entry in the adjacent column labeled "Percentile Ranks." This number indicates the percentage of examinees that scored at or below the examinee's CBSE score.

Percentile Ranks		Percentile Ranks	
CBSE Score	Percentile Ranks	CBSE Score	Percentile Ranks
254 and above	99	185	56
251	99	182	53
248	98	179	50
245	98	176	46
242	97	173	43
239	96	170	39
236	95	167	36
233	94	164	32
230	93	161	29
227	92	158	26
224	90	155	23
221	88	152	20
218	86	149	17
215	84	146	15
212	82	143	13
209	80	140	11
206	77	137	9
203	75	134	7
200	72	131	6
197	69	128	5
194	66	125	4
191	63	122	3
188	60	119 and below	3