NBCRNA

National Board of Certification & Recertification for Nurse Anesthetists

NCE and SEE Interpretive Guide

Calendar Year 2024

January 1, 2024 - December 31, 2024

NCE INTERPRETIVE GUIDE Calendar Year 2024 (CY 2024)

Program Administrators may access summary score reports for the National Certification Examination (NCE) and the Self-Evaluation Examination (SEE) via the NBCRNA website through the Program Administrator's portal. The summary report will contain the results of all currently enrolled students or graduates of the program up to the most recent five years. Neither current students, nor program graduates, can request program summary or individual NCE or SEE score reports, as this reporting capability is limited to designated Program Administrators.

The information contained in this guide is intended to assist in interpreting NCE and SEE test takers' scores. The score summaries contained in this document are based on test taker performance in calendar year 2024 (CY 2024) from January 1, 2024 to December 31, 2024.

- Program Administrators:

    - The Program Administrator summary report is in Excel format. The report contains student name, test date, exam number, total scaled score, result (P/F), and content area scaled scores. The content areas are described in detail in the test content outline of the *National Certification Examination (NCE) Candidate Handbook*.
    - To calculate the first-time test taker average for the total scaled score and each content area score for your students, simply sort the Excel spreadsheet by exam number (1 for first-time takers), sum the candidate scores for your program, both for the total score and for the content area scores, and divide by the number of candidates for your program. Refer to the ***NCE Example of Calculating an Average*** that appears on the next page of this document. These averages can be compared to the national NCE means (total and content area scores) in Table 1 on page 2.
    - The scaled score is a transformation of the examinee's ability score estimated based on their test performance. The scaled score is listed for the total test and each of the content areas ranging from 0-900. The scaled score required to pass is 450 on the total test. Domain area scores are computed independently and cannot be averaged to produce the total test score.

- Students:

    - Compare your scores to the national NCE means in Table 1 on the next page.

NCE EXAMPLE OF CALCULATING AN AVERAGE

Report of NCE Takers for Program 0111

Test Dates 10/1/20XX to 12/1/20XX

Program	Exam	Name	Test Date	Exam No.	Total Score	Result	Score 1	Score 2	Score 3	Score 4
0111	CERT	Doe, F	11/19/20XX	1	413	F	410	306	454	419
0111	CERT	Doe, M	11/8/20XX	1	446	F	428	443	456	459
0111	CERT	Jane, E	11/2/20XX	1	497	P	482	459	499	501
0111	CERT	Jane, P	10/26/20XX	1	496	P	571	450	486	488
Total					**1852**		**1891**	**1658**	**1895**	**1867**
Average					**463**		**472**	**414**	**473**	**466**

(Average = Total Divided by number of test takers; in this case 4)

Score 1= Basic sciences

Score 2= Equipment, instrumentation and technology

Score 3= General principles of anesthesia

Score 4= Anesthesia for surgical procedures and special populations

Table 1: Descriptive Statistics for NCE Overall and Domain Scores—First-Time Candidates for CY 2024

	Mean	Standard Deviation
Total Score	496.0	46.4
Basic Sciences	492.6	64.2
Equipment, Instrumentation and Technology	508.1	65.6
General Principles of Anesthesia	497.3	53.0
Anesthesia for Surgical Procedures and Special Populations	495.4	56.5

SEE INTERPRETIVE GUIDE, Calendar Year 20244 (CY 20244)

The NBCRNA launched the reconfigured version of the Self-Evaluation Examination (SEE) on September 1, 2016 to mirror the content outline for the NCE. The length of the examination increased from 160 to 240 total questions with the testing time limit increased from three to four hours. The SEE content outline was modified again in May of 2018 to reflect the January 2018 revisions to the NCE content outline.

The information contained in this guide is intended to assist in interpreting test takers' SEE scores. This interpretive guide is based on the results data of test takers who took the SEE in calendar year 2024 (CY 2024). Students and Program Administrators may follow these instructions to compare SEE performance using the data tables contained within this guide. Starting in 2020, only calendar year Interpretive Guide is provided.

- Program Administrators:

  - The Program Administrator summary report is in Excel format. The report contains student name, test date, year in program, total scaled score, and content area scaled scores from 1-4. The content areas are described in detail in the test content outline of the *Self–Evaluation Examination (SEE) Candidate Handbook*.
  - The scaled score is listed for the total test and each of the content areas and is a transformation of the examinee's demonstrated ability measure. The scaled scores on the SEE range from 300-600.
  - To calculate the average for the SEE total scaled score and each content area score for your students, simply sum the candidate scores for your program, both for the total score and for the content area scores and divide by the number of candidates for your program. Refer to the ***SEE Example of Calculating an Average*** that appears on the next page.
  - These averages can be compared to the national SEE averages in Table 2 on the next page and to the cumulative percentage tables starting on page 5.

SEE EXAMPLE OF CALCULATING AN AVERAGE

Report of SEE Takers for Program 0111
Test Dates 7/1/20XX to 7/31/20XX

Program	Exam	Name	Test Date	Year in Program	Total Score	Score 1	Score 2	Score 3	Score 4
0111	NSEE	Doe, F	7/13/20XX	1	464	426	460	459	440
0111	NSEE	Doe, M	7/28/20XX	1	379	411	358	351	404
0111	NSEE	Jones, F	7/27/20XX	1	350	380	459	321	389
0111	NSEE	Jones, M	7/28/20XX	1	376	368	357	391	329
Total					1569	1585	1634	1522	1562
Average					392	396	408	380	390

(Average = Total divided by number of test takers; in this case 4)

The scores reflect the following content areas:

Score 1= Basic sciences
Score 2= Equipment, instrumentation and technology
Score 3= General principles of anesthesia
Score 4= Anesthesia for surgical procedures and special populations

Table 2: Descriptive Statistics for SEE Overall and Domain Scores, CY 2024

	1st & 2nd Year in Program*		3rd Year and Above in Program		All	
	Avg	SD	Avg	SD	Avg	SD
Total	411.7	43.5	431.4	40.4	426.2	42.1
Basic Sciences	413.6	51.8	428.1	48.0	424.3	49.4
Equipment, Instrumentation and Technology	411.6	47.7	434.6	45.8	428.6	47.4
General Principles of Anesthesia	414.1	48.4	432.8	45.3	427.9	46.8
Anesthesia for Surgical Procedures and Special Populations	410.9	47.9	432.8	45.4	427.1	47.1

99.8% of the students in this group were in the second year of their program at the time of taking SEE.

Students:

- Compare your scores to the cumulative percentage tables starting on page 6.

At the top of the following pages, the main headings list each of the content areas and the test score. You can compare your individual or your students' performance with other students for each of these content areas by following the appropriate heading. Year 1 and 2 cohorts were combined due to the small size of the Year 1 group (n = 3; 0.04% of 2024 SEE examinees). Program year was calculated based on each examinee's testing date relative to their stated program start date.

Under each main heading you will see groups of columns with subheadings as in the following example:

Basic Sciences			
	Year 1 & 2 Cum %	Year 3 and Up Cum%	All Cum %
401-410	42.7	35.5	41.0
411-420	51.2	44.1	49.7
421-430	59.4	54.5	58.7
431-440	67.8	62.3	66.7
441-450	75.3	71.4	74.7

To compare a score on "Basic Sciences" locate the column on your Program Administrator report labeled score 1 and find the student's scaled score. If the student's scaled score on this content area was 405, you would look down the first column on the cumulative percentage table for "Basic Sciences" until you find the score range of 401-410. The next column to the right, labeled "Year 1 & 2 Cum %", lists the corresponding cumulative percentage of 42.7 for all first and second year examinees. The 35.5 in the next column is the cumulative percentage for all third year and beyond examinees. The corresponding cumulative percentage of 41.0 for all examinees at that scaled score value is listed in the far-right column labeled "All Cum %". This means that with a scaled score of 405 on "Basic Sciences", your student scored higher than or equal to 41.0% of all examinees on that content area.

Students should use these tables in the same manner as Program Administrators to interpret their individual SEE performance across the content areas and total test.

Tables 3-7: SEE Descriptive Statistics, CY 2024

Table 3: Score 1 (Basic Sciences)			
	Year 1 & 2 Cum %	Year 3 and Up Cum%	All Cum %
300-310	3.4	1.4	1.9
311-320	4.6	1.8	2.6
321-330	6.1	2.9	3.7
331-340	8.5	4.4	5.5
341-350	11.5	6.1	7.5
351-360	15.9	8.5	10.4
361-370	20.3	11.3	13.6
371-380	25.8	15.5	18.2
381-390	32.0	20.4	23.4
391-400	39.2	26.4	29.8
401-410	47.4	33.5	37.1
411-420	54.7	41.6	45.0
421-430	61.8	51.0	53.8
431-440	69.9	60.1	62.6
441-450	77.1	68.2	70.6
451-460	82.6	75.7	77.5
461-470	86.6	82.2	83.4
471-480	90.4	87.5	88.3
481-490	93.0	91.1	91.6
491-500	95.2	94.1	94.4
501-510	96.9	96.1	96.3
511-520	98.2	97.5	97.7
521-530	99.0	98.2	98.4
531-540	99.5	98.9	99.0
541-550	99.6	99.3	99.4
551-560	99.6	99.6	99.6
561-570	99.8	99.7	99.8
571-580	99.8	99.9	99.9
581-590	100.0	100.0	100.0
591-600	100.0	100.0	100.0

Table 4: Score 2 (Equipment, Instrumentation and Technology)			
	Year 1 & 2 Cum %	Year 3 and Up Cum%	All Cum %
300-310	2.6	0.7	1.2
311-320	3.2	1.1	1.7
321-330	5.1	1.9	2.7
331-340	6.6	2.9	3.9
341-350	9.6	4.4	5.7
351-360	13.5	5.9	7.9
361-370	19.5	8.4	11.3
371-380	25.7	11.8	15.4
381-390	32.9	16.1	20.5
391-400	40.4	21.8	26.7
401-410	49.5	28.2	33.7
411-420	58.2	36.7	42.3
421-430	65.9	45.2	50.6
431-440	72.3	54.2	58.9
441-450	79.7	62.7	67.1
451-460	85.1	70.9	74.6
461-470	89.3	78.5	81.3
471-480	91.8	84.9	86.7
481-490	94.5	89.3	90.7
491-500	96.8	93.4	94.3
501-510	98.0	95.9	96.4
511-520	99.0	97.3	97.8
521-530	99.5	98.6	98.8
531-540	99.7	99.0	99.2
541-550	99.8	99.4	99.5
551-560	99.9	99.7	99.8
561-570	99.9	99.8	99.9
571-580	100.0	99.9	100.0
581-590	100.0	100.0	100.0
591-600	100.0	100.0	100.0

Table 5: Score 3 (General Principles of Anesthesia)			
	Year 1 & 2 Cum %	Year 3 and Up Cum%	All Cum %
300-310	2.5	0.5	1.0
311-320	3.0	0.9	1.4
321-330	4.4	1.4	2.2
331-340	5.9	2.4	3.3
341-350	8.9	3.6	5.0
351-360	12.4	5.8	7.5
361-370	17.9	8.4	10.9
371-380	25.1	12.5	15.8
381-390	31.3	17.6	21.1
391-400	38.9	23.5	27.5
401-410	47.5	30.3	34.8
411-420	55.6	37.8	42.4
421-430	64.0	46.3	50.9
431-440	71.2	56.1	60.1
441-450	77.7	65.6	68.7
451-460	83.8	73.6	76.3
461-470	88.1	80.5	82.4
471-480	91.2	86.0	87.4
481-490	94.0	90.6	91.5
491-500	96.0	93.6	94.2
501-510	97.0	95.8	96.1
511-520	98.1	97.3	97.5
521-530	99.2	98.4	98.6
531-540	99.6	99.1	99.2
541-550	99.7	99.5	99.6
551-560	99.9	99.7	99.8
561-570	100.0	99.8	99.9
571-580	100.0	99.9	99.9
581-590	100.0	99.9	100.0
591-600	100.0	100.0	100.0

Table 6: Score 4 (Anesthesia for Surgical Procedures and Special Populations)			
	Year 1 & 2 Cum %	Year 3 and Up Cum%	All Cum %
300-310	2.9	0.6	1.2
311-320	3.7	1.1	1.8
321-330	5.3	2.0	2.8
331-340	7.6	3.2	4.3
341-350	11.2	4.5	6.2
351-360	14.8	6.4	8.6
361-370	19.3	8.8	11.6
371-380	26.3	12.5	16.1
381-390	32.8	17.4	21.4
391-400	40.8	22.9	27.6
401-410	48.5	29.4	34.4
411-420	57.3	37.5	42.6
421-430	65.1	45.8	50.8
431-440	73.7	55.2	60.0
441-450	79.2	64.6	68.4
451-460	85.3	73.1	76.3
461-470	90.0	80.5	83.0
471-480	92.9	86.1	87.9
481-490	95.4	90.5	91.8
491-500	97.0	93.9	94.7
501-510	98.0	96.1	96.6
511-520	99.1	97.7	98.1
521-530	99.4	98.8	98.9
531-540	99.8	99.3	99.4
541-550	99.9	99.7	99.7
551-560	99.9	99.9	99.9
561-570	99.9	99.9	99.9
571-580	100.0	100.0	100.0
581-590	100.0	100.0	100.0
591-600	100.0	100.0	100.0

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Table 7: Total Scaled Score			
	Year 1 & 2 Cum %	Year 3 and Up Cum%	All Cum %
300-310	2.3	0.4	0.9
311-320	2.7	0.6	1.2
321-330	3.7	1.2	1.8
331-340	5.4	2.0	2.9
341-350	7.6	3.4	4.5
351-360	11.8	5.6	7.2
361-370	16.4	7.9	10.1
371-380	22.4	10.8	13.8
381-390	29.6	15.0	18.8
391-400	38.4	20.5	25.2
401-410	48.1	27.4	32.8
411-420	57.9	35.8	41.6
421-430	67.8	46.4	52.0
431-440	75.9	57.8	62.5
441-450	82.0	68.2	71.8
451-460	87.0	77.5	80.0
461-470	91.2	84.6	86.3
471-480	94.4	89.8	91.0
481-490	96.4	93.7	94.4
491-500	97.8	96.3	96.7
501-510	98.6	97.9	98.1
511-520	99.6	98.9	99.1
521-530	99.8	99.4	99.5
531-540	99.9	99.7	99.8
541-550	100.0	99.9	99.9
551-560	100.0	99.9	99.9
561-570	100.0	100.0	100.0
571-580	100.0	100.0	100.0
581-590	100.0	100.0	100.0
591-600	100.0	100.0	100.0

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