

## August 2021 and February 2022 NPLEX Summary of Statistics for the Advisory Council NOT FOR DISTRIBUTION

### August 2021 NPLEX administration

Part I - Biomedical Science Examination (BSE)

Alpha (reliability coefficient) = 0.92 (on a scale of 0-1.00)

Alpha of August 2020 BSE = 0.92

The reliability coefficient quantifies the precision of the instrument (accuracy on repeated trial) and therefore is a measure of the trustworthiness of the scores.

Passing rate for 266 first-time takers (1TT) = 74% (12-year average BSE passing rate = 75%)

Passing rate for 118 retakers (2+TT) = 28%

The lowest GEA (79% Structure/Function) sets the upper limit for comprehensive mastery.

		TOTAL 1TT					TOTAL 2TT		TOTAL 3+TT				
# of	N	Ave raw	Lowest	Highest	%	N	%	N	Ave raw	Lowest	Highest	%	
items	1st	score	score	score	Passed	Retakes	Passed	Retakes	score	score	score	Passed	
<b>PART I - BSE Aug 2021</b>		<b>266</b>				<b>56</b>		<b>62</b>					
<b>COMPREHENSIVE MASTERY</b>	<b>200</b>	<b>121</b>	<b>72</b>	<b>175</b>	<b>74%</b>		<b>32%</b>		<b>96</b>	<b>63</b>	<b>125</b>	<b>24%</b>	
DISEASE/DYSFUNCTION	80	50	28	74	82%		52%		41	27	56	53%	
STRUCTURE/FUNCTION	120	72	39	106	79%		38%		55	29	79	31%	

### Part II – Core Clinical Science Examination (CCSE)

Alpha (reliability coefficient) = 0.93 (on a scale of 0-1.00)

Alpha of August 2020 CCSE = 0.92

Passing rate for 278 first-time takers (1TT) = 85% (compared to 84% in 8/20, 83% in 8/19, 88% in 8/18 and 89% in 8/17)

Passing rate for 54 retakers (2+TT) = 37%

The lowest GEA passing rate (Diagnosis 90%) sets the upper limit for comprehensive mastery.

		TOTAL 1TT					TOTAL 2TT		TOTAL 3+TT				
# of	N	Ave raw	Lowest	Highest	%	N	%	N	Ave raw	Lowest	Highest	%	
items	1st	score	score	score	Passed	Retakes	Passed	Retakes	score	score	score	Passed	
<b>PART II - CCSE Aug 2021</b>		<b>278</b>				<b>19</b>		<b>35</b>					
<b>COMPREHENSIVE MASTERY</b>	<b>400</b>	<b>274</b>	<b>190</b>	<b>348</b>	<b>85%</b>		<b>42%</b>		<b>236</b>	<b>209</b>	<b>283</b>	<b>34%</b>	
DIAGNOSIS	130	85	55	115	90%		68%		70	56	130	54%	
MATERIA MEDICA	75	51	32	67	94%		67%		45	31	75	74%	
OTHER MODALITIES	115	82	60	101	95%		79%		73	62	115	80%	
OTHER (MED.) INTERVENTIONS	80	56	29	72	95%		58%		48	37	80	77%	

Feb 2022 NPLEX administration

Part I - Biomedical Science Examination (BSE)

Alpha (reliability coefficient) = 0.94 (on a scale of 0-1.00)

Alpha of previous February BSE = 0.91

Passing rate for 72 first-time takers (1TT) = 47% (12-year average BSE passing rate = 75%)

Passing rate for 109 retakers (2+TT) = 31%

The lowest GEA (57% Structure/Function) sets the upper limit for comprehensive mastery.

	TOTAL 1TT					TOTAL 2TT		TOTAL 3+TT					
	# of items	N 1st	Ave raw score	Lowest score	Highest score	% Passed	N Retakes	% Passed	N Retakes	Ave raw score	Lowest score	Highest score	% Passed
<b>PART I – BSE Feb 2022</b>		<b>72</b>					<b>39</b>		<b>70</b>				
<b>COMPREHENSIVE MASTERY</b>	<b>200</b>		<b>111</b>	<b>61</b>	<b>163</b>	<b>47%</b>		<b>44%</b>		<b>94</b>	<b>62</b>	<b>121</b>	<b>24%</b>
DISEASE/DYSFUNCTION	80		44	22	65	58%		64%		40	22	53	56%
STRUCTURE/FUNCTION	120		67	33	104	57%		54%		54	38	71	30%

Part II – Core Clinical Science Examination (CCSE)

Alpha (reliability coefficient) = 0.90 (on a scale of 0-1.00)

Alpha of February 2021 CCSE = 0.93

Passing rate for 70 first-time takers (1TT) = 71% (compared to 81% 2/21, 77% 2/20)

Passing rate for 63 retakers (2+TT) = 68%

The lowest GEA passing rate (Other Med. Interventions 90%) sets the upper limit for comprehensive mastery.

	TOTAL 1TT						TOTAL 2TT		TOTAL 3+TT				
	# of items	N 1st	Ave raw score	Lowest score	Highest score	% Passed	N Retakes	% Passed	N Retakes	Ave raw score	Lowest score	Highest score	% Passed
<b>PART II - CCSE Feb 2022</b>		<b>70</b>					<b>42</b>		<b>21</b>				
<b>COMPREHENSIVE MASTERY</b>	<b>400</b>		<b>262</b>	<b>200</b>	<b>317</b>	<b>71%</b>		<b>71%</b>		<b>239</b>	<b>188</b>	<b>259</b>	<b>62%</b>
DIAGNOSIS	130		87	65	106	91%		86%		79	55	90	86%
MATERIA MEDICA	75		46	28	59	79%		90%		43	34	53	76%
OTHER MODALITIES	115		75	57	91	94%		93%		68	61	75	81%
OTHER (MED.) INTERVENTIONS	80		54	40	69	90%		88%		49	34	63	90%

PART II - ELECTIVES Aug 2021		TOTAL 1TT					ALL RETAKERS				
		N 1st					N				
ACUPUNCTURE	75 items	67	52	36	62	87%	2	45	41	49	0%
MINOR SURGERY	75 items	235	51	29	66	85%	9	45	34	53	56%
ELECTIVE PHARMACOLOGY	75 items	215	46	32	64	85%	8	37	28	48	25%

PART II - ELECTIVES Feb 2022		TOTAL 1TT					ALL RETAKERS				
		N 1st					N				
ACUPUNCTURE	75 items	26	50	32	67	77%	4	52	43	65	75%
MINOR SURGERY	75 items	51	50	28	62	82%	27	46	34	57	63%
PARENTERAL MEDICINE	75 items	22	53	43	64	95%	0				
ELECTIVE PHARMACOLOGY	75 items	51	44	24	62	69%	15	40	30	48	47%

Key Highlights:

- Feb 2022 more retakers than first-time takers for BSE and CCSE – not typical, but happened in BSE Feb 2020
  - passing rates were not low in August 2021, so this cannot account for the increased numbers of retakers
  - lower than typical number of first-time takers
- Feb 2022 BSE passing rate was exceptionally low
  - NPLEX Board made sure that this was a cohort difference and not a difference in the difficulty of the exam (measured by comparing the percentage of examinees who got the re-used items correct to percentages of examinees who got the same items correct in previous administrations). Up to an 11-point difference when doing this comparison.
  - Cut score for each GEA was set at 50% (examinees needed to get 50% of the items in that GEA correct to pass that GEA)
  - Caution in drawing conclusions based on this very small number of examinees in Feb 2022 (low power).
  - Passing rates/grades across all levels of education are low because of the pandemic stress and disruptions to education. Not surprising to see it happening with NPLEX exams as well
- The individual examinee reports and summary statistics will be sent to the ND programs in May.