

**THE NUCLEAR MEDICINE TECHNOLOGY  
CERTIFICATION BOARD, INC.**

# **NMTCB(CT)**

**ANNUAL  
EXAMINATION  
REPORT  
2023**



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## NMTCB(CT) 2023 Statistics

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### All Examinee Attempts 2023:

Total Number:	161	
Total Number Pass:	111	69%
Total Number Fail:	50	31%

### Summary Statistics 2023:

Range of Scores	295-474
Average Score	395
Standard Deviation	36.67
Median Score	397

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### Introduction

The NMTCB(CT) certification exam is designed to establish the competency of individuals who are qualified to perform in the role of a computed tomography technologist. The first NMTCB(CT) examination was offered in November 2014 with the second and third examinations offered in April and November 2015. In 2016, the exam became “on demand” meaning applicants are able to schedule the exam at a testing site on a day and time convenient for them within the 3-month testing window they are assigned. This summary report is intended to provide information about the 2023 NMTCB(CT) certification examination.

### Scaled Score Information:

Examination results are reported in terms of the scaled score, the mean scaled score, median scaled score, and a measure of the variability of the scaled score distribution -- the standard deviation.

The main objective is to obtain a pass/fail decision with a high degree of precision. However, it was recognized that there are occasions when there is a need to know whether an examinee's performance is close to the passing score or a distance from it. The scaled score is a transformation of the IRT value that is calculated based on the examinee's responses to the items presented during the examination. The scaled passing score was set to 375 on scale range of 200-500. That is, the ability estimate obtained from IRT required to pass the examination was “anchored” at 375. It is very important to note that the scaled score value is not a percentage value.

Beginning in 2016, the NMTCB(CT) examination scores are reported on a scale of 200-500, with **375** set as the scaled passing score. Prior to 2016, the scaled passing score was set at 75.

## **Content Outline Updates:**

NMTCB's post primary certification exams are developed to allow an individual to demonstrate knowledge and competency in an area that is beyond what is expected of an entry level technologist. The NMTCB(CT) credential is designed to establish the competency of an individual to perform computed tomography procedures. Therefore, the NMTCB(CT) certification examination, including its eligibility requirements, clinical requirements, and exam content specifications are reviewed and updated on a regular basis. NMTCB, with the help of the professional community, reviews the certification documents approximately every five years. As a result of the outcomes of the recent job analysis, the NMTCB Board of Directors approved changes to the NMTCB(CT) Examination Content Outline that were implemented on the examination September 1, 2021.

### **Content Outline Thru August 31, 2021:**

The examination content percentages were:

Domain I: System Operations & Instrumentation – 20%  
Domain II: Data Acquisition & Post Processing – 10%  
Domain III: CT Image Quality & Quality Assurance – 15%  
Domain IV: Patient Handling & Radiation Safety – 15%  
Domain V: Medications & Contrast Agents – 10%  
Domain VI: Procedures & Anatomy – 30%

### **Content Outline Effective September 1, 2021:**

The examination content percentages are:

Domain I: System Operations & Instrumentation – 14%  
Domain II: Data Acquisition & Post Processing – 12%  
Domain III: Image Quality & Quality Assurance – 13%  
Domain IV: Patient Management – 6%  
Domain V: Medications & Contrast Agents – 14%  
Domain VI: CT Procedures: Anatomy, Elements, Indications, & Pathology – 25%  
Domain VIII: Radiation Safety – 16%

## Overall Examinee Performance:

Please refer to Table 1 for a general overview of the examination. This table presents the number of examinees who took the test, their average scaled score, the median scaled score, and the overall pass rate percentage beginning in 2014.

**Table 1.** 2014-2023 NMTCB(CT) Examinees

	<b>Number of Examinees</b>	<b>Mean Scaled Score</b>	<b>Median Scaled Score</b>	<b>Overall Pass Rate</b>
2014	117	80.49	81	87.18 %
2015 (April)	93	80.95	81	89.25 %
2015 (Nov)	110	79.70	80	78.18 %
2016*	172	406.76	407	82.56 %
2017	224	409.19	413	83.48 %
2018	207	411.08	413	85.02%
2019	428	409.03	416	81.78%
2020	157	401.18	403	77.71%
2021	118	394.85	394	72.88%
2022	132	382.86	385	59.00%
2023	161	395.00	397	69.00%

*\*Beginning in 2016, the NMTCB(CT) examination scores are reported on a scale of 200-500, with 375 set as the scaled passing score. Prior to 2016, the scaled passing score was set at 75.*

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