

Information to Help Study for the HESI Math Exam

*The HESI is required to enroll in the Nursing and Surgical Tech programs at TCAT Upper Cumberland.
I developed study guides to help potential students study for the HESI Entrance Exam.*

*** This is not a guide developed by TCAT or El Sevier. ***

Please note that of the 10 HESI test sections, TCAT Upper Cumberland requires potential students to only take the Math and Reading Comprehension sections.

The passing score for Reading is 70. The passing score for Math is 70.

For many students, math is the biggest challenge. Nurses must be able to accurately solve calculations related to conversions, dosages, liquid concentrations, reconstituted medications, weight-based medications, and intravenous infusions and evaluate final answer to ensure safe medication administration. Each test draws from a huge database of questions that are different for every student. You could have questions on many of the math subject areas listed below or only a few of them. Below are the various areas of math covered by the HESI entry exam:

- **Roman Numerals.**
- **Military time.**
- **Metric system.**
- **Solve equations.**
 - ✓ *In order to solve equations, you need to work out the value of the unknown variable by adding, subtracting, multiplying or dividing both sides of the equation by the same value. Combine like terms. Simplify the equation by using the opposite operation to both sides. Isolate the variable on one side of the equation.*
- **Accurately perform calculations using decimals, fractions, percentages, ratios, and/or proportions.**
 - ✓ *Add, subtract, multiply and divide whole numbers.*
 - ✓ *Add, subtract, multiply and divide fractions.*
 - ✓ *Add, subtract, multiply and divide decimals.*
 - ✓ *Convert decimal to fraction.*
 - ✓ *Convert decimal to ratio.*
 - ✓ *Convert decimal to percent.*
 - ✓ *Convert percent to decimal.*
 - ✓ *Convert fraction to decimal.*
 - ✓ *Rounding off decimal.*
 - ✓ *Improper and mixed fractions.*
 - ✓ *Solve word problems with fractions and decimals.*
- **Probability expressed as a percent.**
- **Ratios and Proportions.**
 - ✓ *Ratio multiplication and subtraction.*
 - ✓ *Set up and solve ratio and proportion problems.*
- **Convert between the metric and household systems.**
 - ✓ *Convert from one system of measure to another using the metric, apothecary and/or household measurement system - example: gm to mg, mg to mcg, liters to quarts, ounces to pints, grams to ounces to pounds, milliliters to cc's., etc. (try googling nurse's math and Systems of Measurement and Approximate Equivalents).*

See next page for ONLINE HELP

HESI MATH - SOURCES OF HELP AND TUTORING

- You can Google “nurse’s math help with HESI” and all kinds of resources will pop up.
- Go to YOUTUBE and view a tutorial on the area in which you need help.
- Tutoring is available through the Adult Literacy Council – they contact retired math teachers to tutor for HESI Math – email Kara for contact information.

Web Pages and Videos

(to follow these links, press control button as you click on the link)

<https://www.youtube.com/watch?v=nR5eceLq-j8>

<https://www.youtube.com/watch?v=jotENV8zilw>

<http://www.math.com/> <https://www.khanacademy.org/>

<http://www.coolmath.com/prealgebra/02-decimals>

<https://www.mathsisfun.com/>

<https://www.test-guide.com/free-hesi-a2-practice-tests.html> <https://www.testprepreview.com/hesia2.htm>

<https://quizlet.com/360089978/hesi-a2-math-questions-flash-cards/>

<https://nursehub.com/free-hesi-a2-practice-test/>

<https://www.ccri.edu/tutoring/pdf/HESI%20Math%20Practice%20Test%204%20with%20Answers.pdf>

<https://www.ccri.edu/tutoring/pdf/HESI%20Math%20Practice%20Test%201.pdf>

<https://nursehub.com/courses/hesi-a2-math-review-3/lessons/free-hesi-a2-math-diagnostic-test/quizzes/free-hesi-a2-math-diagnostic-test-50-questions/>

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