

Information Sheet for Math 40 Proficiency Test

The Math 40 proficiency test is designed to establish proficiency at the college statistics level and therefore, to eliminate the need to take the course Math 40, Statistics.

Math 40 can be waived if you pass this proficiency test with an acceptable score; however, you do not get academic credit for the waived course.

Who can take this exam?

Only graduate students whose programs include a Math 40 proficiency requirement. Students who need 3 units of course credit for statistics can not take the test.

FAQ's

1. How many times may I take the test?

One time only. The passing score is 70% [21/30].

2. What is on the test?

There are 30 multiple choice questions. See the list below for topics to be tested.

3. How long is the test?

Three hours.

4. May I use a calculator or other resources?

Any calculator may be used. No books are permitted; however, you may have one piece of 8 ½ x 11 paper as a cheat sheet, with anything you want written on both sides. [z- and t-tables will be provided with the exam.]

5. Is there a fee?

No fee.

6. How do I register to take the test?

The exam is administered by the Math Department. Please contact Chris Clark at (415) 442-7874 or chrclark@ggu.edu for further details and to set up an appointment.

7. Are there any suggested texts to help me prepare?

- Statistics for Managers Using Microsoft Excel, Levine et al, Prentice Hall.
- Other text titles with "Introductory Statistics" are appropriate.

8. Where can I get more help?

FREE MATH TUTORING is available on the San Francisco Campus in room 5308, and also online: go to www.ggu.edu/undergraduate_programs/math_online_tutor_help

Topics on the Math 40 Proficiency Test

- ❖ Discrete probability
 - Binomial Distribution
 - Expected Value
 - Joint probability
 - Conditional probability
 - Addition rules
 - Multiplication rules
 - Statistical independence
 - Contingency tables
 - Histograms

- ❖ Continuous probability
 - Normal distribution
 - Reverse transformation formula
 - Sampling distribution

- ❖ Measures of Center and Variation
 - Mean
 - Median
 - Mode
 - Range
 - Variance
 - Standard deviation

- ❖ Confidence intervals
 - For μ , large sample size and σ known
 - For μ , small sample size and σ not known
 - For μ , sample size determination
 - For p
 - Margin of error
 - Interpretation

- ❖ Hypothesis testing
 - Large sample size and σ known
 - Small sample size and σ not known
 - Type I and Type II errors
 - P -values
 - Interpretation

- ❖ Simple Linear Regression
 - Least squares criterion
 - Interpretation of Excel regression output
 - Regression equation
 - Coefficient of determination
 - Linear correlation coefficient
 - Prediction
 - Assumptions for regression
 - P -values