

# TUTOR

APPLICATION FOR PART-TIME EMPLOYMENT  
AS A TUTOR



IN THE  
DOLCIANI MATHEMATICS LEARNING CENTER

Dear Applicant,

As you consider applying for a position in the Dolciani Mathematics Learning Center, there are several questions that I am sure you have about us. This information has been prepared to answer many of these preliminary questions.

Please read through this information carefully and fill out the application form at the end. Mail only the application for to:

The Dolciani Mathematics Learning Center  
695 Park Avenue, 300 North  
New York, New York 10065

Or

You may drop it off at the Center, Room 300HN. Please label your envelope:  
ATTN: Part-Time Recruitment.

The **Hiring Process** begins when you turn in your application. After reviewing your application, you will be contacted and an appointment set up for you to take our screening examination. This is required of every employee who is hired. It assures us that you have the qualifications that we need. Once this is done, you will be called for an interview. At the interview, you will be notified as to whether you have been hired or not. If hired, you will then be asked to fill out payroll forms, given any specific information that you need for the job, and scheduled for training. If you are unable to work within our schedule for a particular semester, please feel free to re-apply for the next semester.

Thank you for your interest and time. I look forward to meeting you.

Sincerely,

Mrs. Barbara Barone  
Director  
Dolciani Mathematics Learning Center

**The Dolciani Mathematics Learning Center** is a laboratory type of facility, designed primarily for the utility of computer, tutorial, and audio-visual materials in learning mathematics and statistics. At the current time we support Pre 101, Math 100, 101,102,104, 105, 125, 126, 150, 155,160, 250, 255, 260, 311, 331 Stat 113, 212 and 213. We also work with students who need to re-learn, or in many cases, learn for the first time, the arithmetic and algebra skills needed to succeed in other courses at Hunter.

Pre-101: **Elementary Algebra Workshop** is a multi-media workshop which helps students review the necessary arithmetic and algebraic concepts necessary to be successful in MATH 101, the gateway course for most math and stat courses.

MATH 100: **Basic Structures of Mathematics** meets the college's math/science general education requirement in quantitative reasoning. It is not a required course and is designed for non-math majors. The course curriculum consists of symbolic logic, topics in probability and statistics, matrices and other finite mathematics topics.

MATH 101: **Algebra for College Students** is an introductory course for students who intend to major in a field which requires proficiency in college algebra. The course content includes algebraic and graphical solutions to systems of equations and inequalities; absolute value, polynomial, rational and radical expressions and equations; complex numbers; the function concept; introduction to polynomial, rational, and exponential functions and their graphs.

MATH 102: **Mathematics in Everyday Life** is an introductory course that fulfills the college general education requirement in quantitative reasoning. The topics include: Critical Thinking, Numbers in the Real World, Uses and Abuses of Percentages, Scientific Notation, Personal Finance, Presentation of Statistics in the Media, Mathematics and Politics.

MATH 104/105: **Mathematics for Elementary Education I and II** are content courses in math for prospective elementary school teachers. They cover problem solving, sets, logic, numeration systems and whole numbers, integers, number theory, rational numbers, decimals, computation, probability, statistics, plane and transformational geometry, congruence and similarity.

MATH 125: **Pre-Calculus** is a course that covers functions and their graphs; polynomials, rational, exponential, logarithmic and trigonometric functions; conic sections; topics in trigonometry; graphical and analytical solutions to systems of equations and inequalities.

MATH 126: **Pre-Calculus Technology Laboratory** is course that introduces students to MATHEMATICA as a tool for exploring qualitative features of functions and solving pre-calculus problems: simplifying algebraic expressions, solving equations, plotting functions and curves, finding and approximating zeros, and solving systems of equations.

MATH 150: **Calculus with Analytic Geometry I** contains limits, continuity, differentiation and integration of elementary functions and trigonometric functions, applications.

MATH 155: **Calculus with Analytic Geometry II** contains differentiation and integration of transcendental functions, integration techniques, infinite sequences and series, improper integrals, and polar coordinates.

MATH 160: **Matrix Algebra** is a course containing systems of linear equations, matrices, determinants, introduction to vector spaces and linear transformations, and applications.

MATH 250: **Calculus with Analytic Geometry III** covers elementary vector geometry, dot and cross products, partial derivatives, matrices, determinants, multiple integration and applications.

MATH 255: **Vector Analysis** covers line and surface integrals, Green's Theorem, divergence theorem, Stoke's Theorem, and generalized coordinates.

MATH 260: **Linear Algebra** is a course covering vector spaces, linear transformations, canonical forms, inner product spaces, bilinear forms, applications.

MATH 311: **Abstract Algebra I** is an introduction to the theory of groups and rings.

MATH 331: **Geometries** covers topics in affine and projective geometry and/or topics in differential geometry.

STAT 113: **Elementary Probability and Statistics** teaches students discrete probability, descriptive and inferential statistics, and estimation and hypothesis testing for normal and binomial means. All sections of this course are taught using a multi-media approach with ActivStat software.

STAT 212: **Discrete Probability** teaches combinatorics, discrete probability, random walks and game theory. Emphasis on model building.

STAT 213: **Introduction to Applied Statistics** covers sampling, estimation, tests of hypotheses, including one- and two-sample t-tests, two- and three-way tables for nominal and ordinal data, linear regression, analysis of variance through two-way with interaction. Some sections use SPSS statistical software.

**TUTOR RESPONSIBILITIES** are twofold. As a tutor, you will be given a group of students. Your first responsibility will be to help the students learn the course material. This usually means working with them on a one-to-one basis or in a small group. Working with students requires tremendous patience. When a student asks a question, the most effective way to work is to first explain the concept in a straightforward manner, do an example demonstrating how that skill works, and lastly, guide them through two or three examples, not actually telling them what to do, but allowing the students to struggle a bit with the problem, giving hints along the way. The second responsibility of a tutor is that of record keeping. Accurate, neat, up-to-date records are absolutely necessary and vital. At first, the paperwork may seem to be a lot, but it can be taken care of during the hour in about 5-6 minutes. The importance of the second part of the job should never be minimized.

HUNTER COLLEGE OF THE CITY UNIVERSITY OF NEW YORK  
DEPARTMENT OF MATHEMATICS AND STATISTICS  
DOLCIANI MATHEMATICS LEARNING CENTER

**APPLICATION FOR EMPLOYMENT**

I am applying for tutoring position. After carefully reading the course descriptions provided in this information packet, I feel capable tutoring: (check as many as are applicable)

- |              |              |              |              |
|--------------|--------------|--------------|--------------|
| PRE-101 ___  | MATH 125 ___ | MATH 250 ___ | STAT 113 ___ |
| MATH 100 ___ | MATH 126 ___ | MATH 255 ___ | STAT 212 ___ |
| MATH 101 ___ | MATH 150 ___ | MATH 260 ___ | STAT 213 ___ |
| MATH 104 ___ | MATH 155 ___ | MATH 311 ___ |              |
| MATH 105 ___ | MATH 160 ___ | MATH 331 ___ |              |

**PLEASE PRINT ALL INFORMATION CLEARLY**

NAME: \_\_\_\_\_

TELEPHONE: \_\_\_\_\_ E-MAIL: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

\_\_\_\_\_

Please list any college level math/education course(s) taken:

\_\_\_\_\_

\_\_\_\_\_

Why do you feel you would be a good tutor?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Briefly describe any previous experience:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

FACULTY REFERENCE:

NAME: \_\_\_\_\_

TELEPHONE: \_\_\_\_\_

APPLICANT'S SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

When applying, please turn in this page only.