

Summer 2010

2010 Summer Enrichment Program in Mathematics and Technology for Talented Youth (MTTY) (Established 1994)

Website: <http://www.mtty.org> **Tel. (703)973-MTTY(6889)**

1. Introduction: The purpose of this program is to offer non-credit enrichment courses in mathematics and computer sciences for students who are entering the 6th grade through 12th grade. The courses are designed to provide an accelerated learning environment in a college atmosphere for high-potential students. The classes are held at George Mason University, Fairfax campus.

Eligibility: The participants must have at least a B average in the most recent mathematics course.

2. Schedule:

Term 1. June 28 - July 9, 2010, except July 5, 2010, Monday through Friday.

Morning Session: 9:00 AM - 12:20 PM.

Afternoon Session: 1:00 PM - 4:20 PM.

Term 2. July 12 - July 23, 2010, Monday through Friday.

Morning Session: 9:00 AM - 12:00 PM.

Afternoon Session: 1:00 PM - 4:00 PM.

Term 3. July 26 – August 6, 2010, Monday through Friday.

Morning Session: 9:00 AM - 12:00 PM.

Afternoon Session: 1:00 PM - 4:00 PM.

3. Subjects: Pre-algebra, Algebra 1, Geometry, Algebra 2 with Trigonometry, Pre-calculus, Calculus, and Introduction to JavaScript with Webpage Design.

4. Class size: Each class is limited to 25 students with the minimum of 8 students.

5. Tuition:

\$400 per course per term.

6. Application procedure:

(1) Complete the registration form below.

(2) Write a check payable to **MTTY** (Mathematics and Technology for Talented Youth) for the amount of the tuition.

(3) **Mail the completed registration form and the check to:**

Dr. J. E. Lin

Box 3736

George Mason University

4450 Rivanna Lane

Fairfax, VA 22030-4441

7. For more information, please contact Dr. J. E. Lin at (703)973-6889 or send an email to: talentedyouth@gmail.com

Website address: <http://www.mtty.org>

8. COURSE DESCRIPTION

1. Pre-algebra: The topics covered include variables, formulas, solving problems by using equations, operations with algebraic expressions, graphing linear equations, and inequalities.

2. Algebra 1 (Pre-requisite: Pre-Algebra): The topics covered include properties of numbers, solving equations, polynomials, factoring polynomials, graphs, linear equations, inequalities, fractional expressions and equations, real numbers, radical expressions, quadratic equations. Logical reasoning and mathematical applications are emphasized throughout the course.

3. Geometry (Pre-requisite: Algebra 1): The topics covered include points and angles, congruence and angles, triangles and congruence, triangles and inequalities, parallel lines, quadrilaterals, similarity, polygons, circles, coordinate geometry, and 3-dimensional geometry. Proofs are emphasized throughout the course.

4. Algebra 2 with Trigonometry (Pre-requisite: Algebra 1 and Geometry): The topics covered include functions, polynomials, rational expressions, trigonometry, trigonometric equations, identities, Laws of Sine and Cosine, and graphing trigonometric functions.

5. Pre-calculus (Pre-requisite: Algebra 2 with Trigonometry): This course covers functions, graphs, exponential functions, logarithmic functions, trigonometric functions, parametric equations, polar coordinates, inequalities, and applications.

6. Calculus (Pre-requisite: Pre-calculus): The topics covered include functions, graphs, limits, continuity, derivatives, second derivatives, applications of derivatives, antiderivatives, integrals, applications of integrals, Fundamental Theorem of Calculus, sequences, series, and Taylor series.

7. Introduction to JavaScript with Webpage Design:

This course is for beginners only. No prior programming experience is required.

Learn HTML, the language of the Internet. Learn to create Java Scripts that bring "life" to your web pages.

**THE REGISTRATION FORM FOR 2010 SUMMER ENRICHMENT PROGRAM IN
MATHEMATICS AND TECHNOLOGY FOR TALENTED YOUTH AT GEORGE MASON
UNIVERSITY**

Name _____ Home phone (_____) _____

Address _____

Email _____ Parent's work phone (_____) _____

School _____

Entering grade level as of 9/10 _____ Interested in the carpool? Yes ____, No ____.

Course selection: (Place the course choice 1, 2, 3, ...in the order of preference, 1 is the most desirable, etc.)

Term 1 (June 28 - July 9, 2010, except July 5, 2010, Monday through Friday)

Morning session (9:00 AM - 12:20 PM)

___ Algebra 1 (\$400)

___ Algebra 2 with Trigonometry (\$400)

Afternoon session (1:00 PM - 4:20 PM)

___ Introduction to JavaScript with Webpage Design (\$400)

Term 2 (July 12 - July 23, 2010, Monday through Friday)

Morning session (9:00 AM - 12:00 PM)

___ Pre-algebra (\$400)

___ Geometry (\$400)

___ Calculus (\$400)

Afternoon session (1:00 PM - 4:00 PM)

___ Introduction to JavaScript with Webpage Design (\$400)

Term 3 (July 26 – August 6, 2010, Monday through Friday)

Morning session (9:00 AM - 12:00 PM)

___ Algebra 1 (\$400)

___ Algebra 2 with Trigonometry (\$400)

___ Pre-calculus (\$400)

Afternoon session (1:00 PM - 4:00 PM)

___ Introduction to JavaScript with Webpage Design (\$400)

*****The following information is required by George Mason University*****

Emergency Contact: The following person should be contact in case of emergency:

Name: _____ Relationship: _____

Telephone: _____

Name of the Health Insurance Company or HMO: _____

Insurance Policy Number _____

Risk Release Statement

The undersigned, being the parents/guardian of the above named student, certified that I hereby relieve the program coordinator and the instructors of any legal and financial responsibilities of the above named student for accident and sickness that may take place during the conduct of this program. I also agree, for myself, my heirs and assigns, to release and hold harmless George Mason University, the Commonwealth of Virginia, and their officers, employees and agents from any claim, damage, liability, injury, expense or loss, including defense costs and attorney's fees, arising from the above student's activities in the program. Signed:

_____ Date: _____

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