

Dear STEP Applicant/ Parent,

I am delighted that you are inquiring about New York University's Science and Technology Entry Program. The STEP Program has a competitive admissions policy - a strong academic background is our first consideration, and we require an overall average of 80 in math and science as a prerequisite for admission. Of equal importance to us is the level of motivation evidenced by our applicants. We are seeking students who truly wish to participate in their own learning process. STEP will continue to offer a variety of courses with low teacher-to-student ratios. Activities run from 9:30 a.m. until approximately 3:00 p.m. Saturdays. The enclosed materials outline our program and application process.

Please complete and return the enclosed application by mail or fax (212) 995-4957 by 5:00 p.m., Wednesday, September 17, 2008. Please be sure to include the Pre-Registration Form so that we may create a tentative schedule for students admitted into the program. Completed applications submitted on or before the deadline will be considered on a first come first served basis; late applications will be processed according to space availability.

Admission decisions will be made by September 26, and you will be notified by e-mail. The following are some important dates to remember:

Application Deadline:	Wednesday, Sept. 17, 2008
Orientation:	Saturday, Oct. 4, 2008
Program Start:	Saturday, October 18, 2008
Program End:	Saturday, May 16, 2008

For further information, please feel free to contact me at (212) 998-5682 or via email at [tnm205@nyu.edu](mailto:tnm205@nyu.edu). I look forward to hearing from you.

Best regards,

Theresa Mohabir  
Program Coordinator

## Program Information

**Philosophy** STEP places students at the center of their learning process. This includes advising and counseling students in how to take responsibility for their own learning, and connecting abstract knowledge to students' everyday experiences.

**Mission** The Science & Technology Entry Program (STEP) at New York University (NYU) is an innovative pre-college enrichment program for talented middle and high school students in New York City. Our goal is to encourage and increase the presence of historically under-represented groups in science, technology, engineering, math and licensed professions.

**Curriculum** STEP offers enrichment classes for most secondary school math and science courses, along with opportunities to participate in instructor guided group-research. Mentoring, counseling, SAT and PSAT preparation, career exploration and college discovery are also integral parts of the STEP curriculum.

**Enrichment** Morning enrichment classes focus on typical secondary school curriculum. Math classes include Algebra, Geometry, Trigonometry, Pre-Calculus, Calculus AB, and Calculus BC. Students are also required to take an English Seminar, which develops students' ability to express themselves in writing as well as think critically about what they read.

**Electives** Afternoon elective classes incorporate hands-on techniques and interdisciplinary themes to connect students to real world opportunities in Internet technologies, art and design, engineering, publishing, clinical medicine, and math and science careers. In addition, elective classes aim to expand students' knowledge and understanding of Biology, Chemistry, Physics, Botany, and Engineering.

**Research** STEP gives several talented 11th and 12th graders each year the opportunity to conduct scientific or technological research at NYU facilities. Students are later given the chance to present their research and findings at the annual STEP State Conference in Albany, NY.

**Counseling** STEP employs a talented staff of trained mentors, guidance counselors, and academic tutors that prepare students for college and career exploration, provide support with personal, social, and cultural development issues, as well as help students reach their academic goals.

**Parents** Parents must participate in their child's STEP experience. While students are participating in academic enrichment classes, STEP conducts weekly Parenting Workshops that cover a wide range of topics from college admissions to adolescent health and sexuality. All parents must attend six (6) Parenting Workshops during the academic school year. In addition, parent volunteers are often called upon to assist staff members at STEP activities and events.

Program Eligibility

**To be an eligible applicant to STEP, you must:**

- be a high school or middle school student in grades 8-12
- have an 80 Average in Math, Science, and English
- have an 80 Cumulative Average
- be a resident of New York State
- identify as African American, Latino, Native American, and Alaskan American, or meet state-determined economic criteria below.

**A student is considered economically disadvantaged if:**

- he/she is a member of a household supported by one parent if dependent, by the student or by a spouse if independent, whose total annual income is not more than the applicable amount listed in the table below; or
- he/she is a member of a household supported solely by one member thereof who works for two or more employers with a total annual income which does not exceed the applicable amount set forth in the following table by more than \$2,630; or
- he/she is a member of a household supported by more than one worker (parents if dependent, student and spouse if independent) in which the total annual income does not exceed the applicable amount listed in the table below by more than \$5,250; or
- he/she is a member of a household by one worker (parent if dependent, student if independent) who is the sole support of a one-part family in which the total annual income does not exceed the applicable amount listed in the table below by more than \$5,250.

(For students first entering the Program between July 1, 2008 and June 30, 2009.)

**Members in household**

(Including head of household)

**Total annual income**

(2007)

<b>1</b>	<b>\$15,140</b>
<b>2</b>	<b>20,390</b>
<b>3</b>	<b>25,650</b>
<b>4</b>	<b>30,900</b>
<b>5</b>	<b>36,150</b>
<b>6</b>	<b>41,410</b>
<b>7</b>	<b>46,660</b>

(add \$5,250 for each family member in excess of 7)

Application Procedure

## **Application Completion Checklist**

- Completed and signed Application for Admission
- Name of student on each page of the application
- Completed Personal Statement Essay
- Completed class Pre-registration Form
- Copy of the most recent school year report card
- Copy of the most recent high school transcript
- Copy of 1040 income tax form for 2007 (if economic eligibility is required)
- Copy of citywide math and reading scores (for 9th grade applicants)
- Copy of PSAT scores (for 12th grade applicants)
- Copy SAT and/or ACT scores (for 12th grade applicants)
- Teacher Evaluation Form completed by teacher and mailed to STEP

## **Deadlines and Important Dates**

Application Deadline - September 17, 2008

Notification of Acceptance by Email - September 26, 2008

Program Student Orientation - October 4, 2008

First Day of Class - October 18, 2008 9:30 a.m. - 2:30 p.m.

\*\*(Applications will be reviewed as they are received. Applications received after the deadline will be evaluated and put on the waitlist.)

## **Program Fees**

Program Activity Fee - \$120

Lunch Program Fee (Optional) - \$120

\*\*(Please do not mail in payments. Payment by check or money order only will be collected during Student Orientation.)

## **Submit Applications To**

Mail: New York University  
Science and Technology Program  
239 Greene Street, 8th Floor  
New York, New York 10003

Fax: Attention: STEP Admissions  
212-995-4193 or 212-995-4957

**Professions that are Licensed, Registered, or Certified by the Board of Regents**

Acupuncture  
 Architecture  
 Athletic Training  
 Audiology  
 Certified Shorthand Reporting  
 Chiropractic  
 Clinical Laboratory Practitioners  
 Dentistry  
 · Dentists  
 · Dental Anesthesia/Sedation  
 · Dental Hygienists  
 · Certified Dental Assistants  
 Dietetics-Nutrition  
 Engineering  
 Interior Design  
 Land Surveying  
 Landscape Architecture  
 Massage Therapy  
 Medical Physics  
 Medicine  
 · Physicians  
 · Physicians, 3-year limited license  
 · Physician Assistants  
 · Specialist Assistants  
 Mental Health Practitioners  
 · Creative Arts Therapy  
 · Marriage and Family Therapy  
 · Mental Health Counseling  
 · Psychoanalysis  
 Midwifery  
 Nursing  
 · Registered Professional Nurses  
 · Nurse Practitioners  
 · Licensed Practical Nurses  
 Occupational Therapy  
 · Occupational Therapists  
 · Occupational Therapy Assistants  
 Ophthalmic Dispensing  
 Optometry  
 Pharmacy  
 · Pharmacists  
 · Pharmacy Establishments  
 Physical Therapy  
 · Physical Therapists  
 · Physical Therapist Assistants  
 Podiatry  
 Psychology  
 Public Accountancy  
 · Certified Public Accountants  
 · Public Accountants  
 Respiratory Therapy  
 · Respiratory Therapists  
 · Respiratory Therapy Technicians  
 Social Work  
 Speech-Language Pathology  
 Veterinary Medicine  
 · Veterinarian  
 · Veterinary Technician

**Program Calendar**

	October 2008
4	Orientation
18	In Session
25	In Session
	November 2008
1	In Session
8	In Session
15	In Session
22	In Session
	December 2008
6	In Session
13	In Session
20	In Session
	January 2009
24	In Session
31	In Session
	February 2009
7	In Session
21	In Session
28	In Session
	March 2009
7	In Session
14	In Session
	April 2009
4	In Session
18	In Session
25	In Session
	May 2009
2	In Session
9	In Session
16	Graduation/ Awards Ceremony

**APPLICATION FOR 2008-2009 ADMISSION (Page 1)**

**Student Name :** .....

**Student Information** (Please print.)

Last 4 Digits of Social Security Number : ..... Student E-Mail Address : .....  
 Last Name : ..... First Name : ..... Middle Initial : .....  
 Date of Birth: ...../...../..... New York State Resident (circle one): Yes No  
 Street Address : ..... Apt. No. ....  
 City : ..... State : ..... Zip Code : .....  
 Home Phone : ( ) ..... Gender (circle one): Male Female  
 Ethnicity (circle one): Black Hispanic Native American Asian White  
 Parent's Name : ..... Parent's Work Phone : ( ) .....  
 In case of an emergency, please contact : ..... Phone : ( ) .....  
 Relationship to student : .....

**Sponsor Information** (Please complete this section, even if the sponsor is the same as the parent.)

Last Name : ..... First Name : ..... Middle Initial : .....  
 Street Address : ..... Apt. No. ....  
 City : ..... State : ..... Zip Code : .....  
 Home Phone : ( ) ..... Work Phone : ( ) .....  
 Name of Employer : ..... Job Title : .....  
 Sponsor E-Mail Address : .....  
 Relationship to Student : .....

**School and Academic Information**

School Name : ..... Principal : .....  
 Address : ..... Counselor : .....  
 City : ..... State : ..... Zip Code : .....  
 Phone : ( ) .....  
 Grade in Fall 2008 (circle one): 8th 9th 10th 11th 12th  
 Class Rank : ..... Expected Date of High School Graduation : .....  
 Does your school administer Regents Examinations? (circle one): Yes No  
 Type of Diploma Expected (circle one): Regents Advanced Regents Other .....

APPLICATION FOR 2008-2009 ADMISSION (Page 2)

Student Name : .....

School and Academic Information (Cont.)

Expected Fall 2008 Course Names for Math, Science and English (Ex. Math B, Term I) :

Math : ..... Science : ..... English : .....

Grades (Please indicate all grades as numerical grades.) :

Middle Level Language Arts Assessment Performance : ..... [For 9th grade applicants]

Middle Level Mathematics Assessment Performance : ..... [For 9th grade applicants]

Middle Level Science Assessment Performance : ..... [For 9th grade applicants]

PSAT : Date ..... Math ..... Verbal ..... Writing ..... I have not taken the PSAT .....

SAT : Date ..... Math ..... Verbal ..... Writing ..... I have not taken the SAT .....

SAT II : Date ..... Subject ..... Score ..... I have not taken the SAT II .....

SAT II : Date ..... Subject ..... Score ..... I have not taken the SAT II .....

SAT II : Date ..... Subject ..... Score ..... I have not taken the SAT II .....

Honors and Advanced Placements Courses (List all Honors and Advanced Placement Courses and the grades received) :

.....
.....
.....
.....

Regents grades :

Math A ..... Math B ..... Biology ..... Chemistry ..... Physics .....

Earth Science ..... English .....

Related Information :

Please indicate the top three high schools to which you plan to apply. [8th and 9th grade applicants only]

First : ..... Second : ..... Third : .....

Please indicate the top three colleges to which you plan apply.

First : ..... Second : ..... Third : .....

Science and Technology Entry Program History :

Are you a continuing student? (circle one) : Yes No Date of first entry to program : .....

If so, in which program are you enrolled (circle one) : STEP BEST

Dates of attendance (circle all that apply) : Summer 2003 Academic year 2003-2004 Summer 2004
Academic year 2004-2005 Summer 2005 Academic year 2005-2006 Summer 2006
Academic year 2006-2007 Summer 2007 Academic year 2007-2008 Summer 2008

**APPLICATION FOR 2008-2009 ADMISSION (Page 3)**

Student Name : .....

**Personal Statement**

The personal statement offers an opportunity for us to become acquainted with you in ways different from grades, test scores and other objective data. With this in mind, please write an essay, 250 words or more, on a separate sheet of paper. Be sure to put your name (first and last) at the top of the essay. Please type your essay. **For New Applicants Only:** Please write a brief essay about yourself that includes any future academic and/or professional goals you may have, and any awards and/or honors you have received. Detail what you want to accomplish academically and personally this year and what type of help you need to accomplish these goals. Discuss your feelings about your weakest and strongest qualities. **For Returning Applicants Only:** Please write a brief essay about yourself that includes what you would like to accomplish academically and personally this year. Indicate the type of help you need to accomplish these goals.

**Student Signature**

I, ....., agree to participate in the Science and Technology Entry Program (STEP) at New York University. As a participant, I will attend activities as scheduled, and will be on time for all activities. I understand that my signature on this document constitutes an agreement between me and the New York University Science and Technology Entry Program (STEP).

Student Signature : ..... Date : .....

**Parent/Guardian Signature**

I (we), ....., give permission for ..... to participate in the Science and Technology and Entry Program (STEP) at New York University. I (we) authorize New York University to obtain and review school records. I (we) understand that all information will be kept confidential.

Parent/Guardian Signature : ..... Date : .....

**Awards and Honors** (Please list names and dates of awards and honors recieved.)**Research/Competitions** (Please list names and dates of research projects/competitions, i.e. Science fairs)**Specialized Programs, Activities, and Internships** (Please include dates.)

**APPLICATION FOR 2008-2009 ADMISSION (Page 4)**

Student Name : .....

**Pre-Registration Form****Morning Enrichment Classes**

(Note: All students will do an assessment for placement into Writing and Math Skills courses. Choose one based on the grade.)

## WRITING SEMINAR:

- .....8TH GRADE Seminar
- .....9TH GRADE Seminar
- .....10TH GRADE Seminar
- .....Junior Seminar
- .....Senior Seminar

## MATH SEMINAR:

- .....Algebra
- .....Geometry
- .....Trigonometry
- .....Pre-Calculus
- .....Calculus AB
- .....Calculus BC

**Afternoon Electives**

(Select your TOP THREE choices by writing the numbers 1, 2, 3 in the space to the left. These classes will be offered based on demand and interest; therefore, you are not guaranteed to get the class requested.)

- .....Aeronautics (Instructor: Irwin)
- .....American Studies (Instructor: Lee) [8th Graders Only]
- .....Ancient Mythology & Modern Astronomy (Instructor: Abdul-Mani)
- .....Anatomy and Physiology (Instructor: Costa) [Pre-requisite: Biology, Chemistry, Physics]
- .....Investigating Bio Careers(Instructor: Iqbal)
- .....Biology (Instructor: Gay)
- .....Discrete Math (Instructor: Liang) [Pre-requisite: Trigonometry]
- .....Experimental Methods (Instructor: Ma)
- .....Network Engineering and Security (Instructor: Wicks)
- .....Multimedia Publishing (Instructor: Chan)
- .....Organic Chemistry (Instructor: Shih) [Pre-requisite: Chemistry]
- .....PC Networking (Instructor: Nixon)
- .....Physics (Instructor: Morgan)
- .....Video Production (Instructor: Vincent) [9th-11th Grade Students Only]
- .....Writing Journals Conversation (Instructor: Waters) [10th-12th Grade Students Only]

## STEP 2008-2009 Course Descriptions

**Morning Enrichment Classes** 9:30 AM – 10:30 AM and 10:35 – 11:40 AM

**Algebra:** We use algebra in our everyday life. We use it when we try to figure out how much flour to put in a certain recipe. We use it when we need to figure out how long it will take before you reach your destination if you are driving at 60mph. We are doing algebra without us being conscious of the fact that we are. We will explore questions like these and more. In this class, we will be dealing with such topics as order of operations, exponents, solving and graphing linear and quadratic equations, the coordinate plane and an introduction to complex numbers.

**Geometry:** Geometry is the study of size and space. In other words, it deals with space. We will begin with the basic perimeter and area formulas that are commonly used to describe space we live in and expand from that. It will deal with both the second and third dimensions of space. Some of the topics that we will cover in this class include the coordinate plane, lines and line segments, quadrilaterals and other polygons, various theorems and postulates, and the Pythagorean theorem.

**Trigonometry:** Ever wonder how certain measurements are taken, such as the distance between the earth and the moon? The answer lies in the relationships that exist within a triangle. Trigonometry is a branch of mathematics that deals with relationships between the sides of the triangle and its applications in other fields. Physics, chemistry, navigational science, astronomy and almost all branches of engineering rely heavily on trigonometry. We will be studying cosine, sine, tangent functions and their inverse functions as well.

**Pre-Calculus/Calculus:** How do banks calculate how much money you should collect with a certain interest rate? How can you make the most of certain materials? What is the largest building I can make given a certain amount of material? All these questions deal with the rate of change of one quantity with respect to another. This is the study of calculus. Some of the topics that we will be covering include functions, inverse functions, differentiation and integration of certain functions, related rate problems and maximum-minimum problems.

**Career-Related Elective Classes** 1:00 PM – 2:30 PM

Elective courses are primary vehicles for STEP students to learn about math, science, technology-related and other professional careers and to gain hands-on skills to facilitate entry into these fields. Coursework enables students to acquire relevant skills, knowledge, experience and contacts to build their resume and portfolio. Elective courses are an opportunity to learn about trends and opportunities in the field, apply core academics (Math, Science, and English) to individual and group career-related electives and demonstrate learning through vehicles such as the Learning Expo.

**Aeronautics:** The science and art of flying. Careers in aviation are not limited to just pilots, but include fields such as engineering and chemists. If you have ever thought of a career in aviation, then this course will enlighten you on the basics on how aircrafts stay in the air, and will cover everything from airplanes to space shuttles.

**American Studies:** The purpose of this course is to prepare NYS eighth graders for the required Intermediate Social Studies Assessment Exam in the spring. This course will familiarize students with both the structure of the exam and social studies content.

**Anatomy & Physiology:** This course will give students a working knowledge of human anatomy and physiology and its relevance to the science, art, and medical fields. Students will be able to identify, recreate, and state the physiological functions of particular structures and systems. All students are expected to arrive in class on time and ready to work, with the previous assignment completed. This course will be cumulative—all later work will build on earlier material.

## STEP 2008-2009 Course Descriptions (Cont.)

**Ancient Mythology & Modern Astronomy:** This course will synthesize two classical disciplines: astronomy and mythology. These two subjects are essential building blocks for literacy in both world literature and the common physical sciences. Students will complete hands-on projects, relative to both mythology and astronomy, to be presented at the STEP year-end Expo.

**Biology:** Humans have started observing and classifying the organisms that we share our world with. It was an essential part of survival. In this course, we will try to build on the student's own interest in living things and gradually introduce them to ideas that will enable them to make sense of nature. The course will deal with both the microscopic and the macroscopic world, life functions, taxonomy, evolution, ecology and social issues surrounding biology. The course will end in a research project that each student will develop on his/her own.

**Discrete Math:** Discrete Mathematics is the mathematical language of computer science, and as such, its importance has increased drastically in recent years. The use of Discrete Mathematics has an essential part in the development of students' mathematical power in a society grounded in technology and communication. Prerequisite: Trigonometry.

**Experimental Methods:** In this course, we will be conducting a series of college level inorganic and biochemical experiments. We will also take a more in-depth view of forensic science.

**Investigating Bio Careers:** This course will investigate the career options of students interested in majoring in Biology, Chemistry, Biochemistry, Neurology, and related fields.

**Multimedia Publishing:** This exciting new class will focus on the planning, creation, and presentation of digital and print media publications. We will cover the basics of graphic design, as well as web and print media design and publication. Students will get hands-on experience in Adobe design programs such as Photoshop, Illustrator, InDesign, and Dreamweaver, as well as the opportunity to create their own posters, brochures, pamphlets, books, and websites.

**Network Engineering and Security:** Students will learn about the basic components of computer and network environments. Students will also learn how to secure these environments against 21st century cyber threats.

**Organic Chemistry:** Students will be able to study the next level of chemistry and explore one of the major sciences in the pre-medical world and industrial chemical field. We will be discussing the chemistry of the element carbon. This will include everything from hydrocarbons to amino acids.

**P.C. & Networking:** Learn to build a computer from the motherboard up; install and configure Windows operating system; connect computer in a local area network. Topics include: Hardware, Software and Peripherals; Boot Process and Command Line; Motherboard, Memory and I/O Communications; Windows 98, 2000 and XP, Modems, SCSI and OS Installation; Networking; Security and; Troubleshooting.

**Physics:** Physics is a science that deals with the fundamental forces that govern our universe. Physics takes an in depth look at how molecules interact with one another. In this course, we will study topics such as motion, forces, energy, momentum and electrical charges. There is also a branch of biology known as biophysics, which allows us to study living systems using physics. Physics is an involved class that will allow you to apply all the other subjects of science and math that you have been studying.

**Video Production:** Discover the process of filming and video production. This course will give you a hands-on approach to this wonderful art and allow you to use the latest equipment in the field.

**Writing Journals Conversation:** This class will emphasize critical reading and writing, conversation, and use of language in their appreciation of poetry, stories, folktales, and essays. Analysis of reading and writing materials are an essential element in this class.

# Teacher Evaluation Form

Applicant's Name: ..... School: .....

This student has asked you to provide an assessment of his/her qualifications for participation at New York University, STEP (Science and Technology Entry Program). STEP is a pre-collegiate preparatory program committed to increasing the number of historically underrepresented students preparing to enter college, and improve their participation rate in mathematics, science, technology, health related fields and the licensed professions. We are looking for students that possess both academic and non-academic potential for acquiring the skills and attitude necessary to pursue postsecondary education leading to careers in scientific, technical, or health-related fields, or the licensed professions. Please return this form to the student in a sealed envelope with your signature across the back as soon as possible (deadline 9/17/08). If you have any questions, please me at (212) 998-5682. Thank you in advance for your assistance.

Sincerely,

Theresa Mohabir  
Program Coordinator

	Below Average	Average	Above Average	Outstanding	No basis for evaluation
<b>Academic Ability</b>					
Intellectual curiosity					
Ability to grasp new concepts					
<b>Classroom Performance</b>					
Work habits					
Ability to work with others					
Preparation					
Quality of work					
<b>Behavior</b>					
Motivation					
Conduct					
<b>Personal Abilities</b>					
Maturity					
Self-confidence					
Leadership					
Perseverance					

- Overall recommendation** (please check one):
- ..... Highest recommendation without reservation
  - ..... Recommend with confidence
  - ..... Recommend
  - ..... Would not recommend this applicant

Teacher's Name : ..... Signature : ..... Date: .....

Position : ..... Phone Number : ..... Email : .....