STEM COURSE REGISTRATION – SUMMER 2019

July 8th – July 25th

Room: 1206 Ingersoll Hall 9:00am – 11:00am, M-Th
**Science Explorers:** This course is for rising 7th and 8th grade BCSTEP students who get excited about science. Material to be covered will include skills such as scientific measuring, weighing and pipetting as well as activities to master the skills taught. In addition, solving simple science related math problems will be included. Students will get to ask questions and do experiments using real scientific equipment.

Room: 230 Ingersoll Hall Extension 1:00pm – 3:00pm, M-Th
**Aquaculture & Aquaponics:** In this course we will learn the fundamentals of aquaculture and aquaponics and this will include the construction of our own aquaponics systems. We will go over and put into practice different methods of seed germination and plant propagation. We will discuss basic plant biology and fish biology. We will also learn about water quality/chemistry and how to test it and make adjustments if needed. We will also be running a small scale experiment comparing two different methods of aquaponics (media bed culture vs Raft culture) and we will collect and compile the data collected. This class will consist of some class room presentations but the majority of the class will be a hands on course taught in the Brooklyn College Greenhouse.

Room: 2239 Ingersoll Hall 9:00am – 11:00am, M-Th
**Urban Food Systems 101:** Where does our food come from, and how is it made? Can we make our own food in NYC? In this class, participants will explore the role of modern food systems in urban communities like Brooklyn. We will explore diverse topics, including home and community composting programs (earthworms!), to the reclamation of underutilized spaces for gardening, to the roles that honeybees, native pollinators, and other wild animals have in food production. Interested students should be willing to get their hands dirty both literally and figuratively as we visit local farms and independently research, design, and maybe even build our own home gardens.

Room: 2207 Ingersoll Hall 9:00am – 11:00am, M-Th
**Laboratory Techniques:** This three week course will focus on the skills used in the research laboratory. Activities include using the microscope, sterile technique, isolating and amplifying DNA (PCR), genetics and dissections. Rising 10th and 11th graders are encouraged to take this course.

Room: 2227 Ingersoll Hall 9:00am – 11:00am, M-Th
**Water Quality and Lake Ecology: Who killed the fish?**
Students taking this course will learn the basics of water quality assessment, chemical and physical processes of lakes, and learn the methods of aquatic data collection, field work and experimentation. This course will involve active learning with hands-on activities involving lab experiments, and field work. Different primary producers will be grown in fish tanks in the Brooklyn College greenhouse. Students will get the opportunity to study the changes in the water caused by each of the primary producers. Students will also have the opportunity to study the water in Prospect Park Lake during class trips to the park.

Room: TBD 9:00am – 11:00am, M-Th
**Forensics:** Learn lab and problem-solving skills specific to criminal forensics in this hands-on course that will cover fingerprint and document analysis, chemical testing, evidence identification and other topics.

Room: 3410 James Hall 12:00pm – 2:00pm, M-Th
**PSAT/SAT Review:** Examination of skills necessary for success in math, critical reading and writing. Students will develop strategies for solving PSAT/SAT math questions and writing an effective essay.

Please keep this course description page for your records.
All students who are enrolling in the summer program must be registered participants of TRiO as well as BCSTEP. Students currently in grades 8 – 12 must rank their preferred courses on a scale of 1 to 3. Please submit the following course selection and liability release forms to Brooklyn College TRiO Talent Search Program; you may scan/email completed forms to any of the emails listed below or drop-off at the TRIO counselor’s office in your school.

Please indicate below the course(s) in which you wish to participate. Indication of interest does not constitute acceptance in the course. Students will be placed based on eligibility and on a first-come, first-serve basis. You will be notified if you are accepted in your chosen course.

_____ Science Explorers (current 6th and 7th graders only)

Rank your preferences 1, 2, 3 next to your choices (current 8th to 11th graders)

_____ Aquaculture & Aquaponics
_____ Urban Food Systems 101
_____ Water Quality
_____ Laboratory Technique
_____ Forensics
_____ PSAT/SAT Review (preference is given to rising 11th and 12th graders)

TRiO Talent Search Office
Contact: Ms. Lavern Maison or Ms. Jennifer Springer
Email: Lavern.Maison@brooklyn.cuny.edu; Jennifer.Springer@brooklyn.cuny.edu
Room 1428 Ingersoll Hall
2900 Bedford Avenue
T: (718) 951-5593
Brooklyn, NY 11210

Contact: Mohamed Kaba
Schools: Brooklyn Generation School
        Brooklyn Collegiate High School
        Origins High School
Email: Mohamed.Kaba@brooklyn.cuny.edu

Contact: Shaquille Winston
Schools: Cultural Academy for the Arts & Sciences
        Academy for College Preparation and College Entrance
        Youth and Community Development High School
Email: Shaquille.Winston@brooklyn.cuny.edu

Contact: Loakeisha London
Schools: George Westinghouse High School & The School for Human Rights
LIABILITY RELEASE FORM

As the custodial parents/legal guardian of ___________________________, I authorize and permit my student to participate in field trips, activities, and events offered by Brooklyn College STEP Program (BCSTEP). Furthermore, I warrant and represent that:

1. My student is healthy and physically able to participate in BCSTEP field trips, activities, and events. I know the BCSTEP does not have any medical insurance.

2. I will ensure that my student is provided the necessary clothing and is appropriately dressed for BSTEP trips and activities.

3. I am aware that in any field trip, activity, or event there are certain risks. I have explained to my student the appropriate behavior expected for participation in field trips, activities, and events and that my student must obey all rules, regulations, and instructions given as applicable for the field trip, activity, or event in which he/she is a participant.

4. I understand that my student may be leaving the Brooklyn College campus and be transported by chartered bus or public transportation. I am aware that dates and times of departure and return to the campus will be advertised. I will arrange for my student to be on time at the place of departure and I will arrange how he/she will return home from the place of dismissal.

5. I agree that the Brooklyn College Educational Talent Search Program and those associated with BCSTEP will not be liable for:
   a. any loss, injury or death related to the field trip, activity or event; except that caused directly by an employee as a result of his or her gross negligence or intentional tort; or
   b. any loss, injury or death that occurs as a result of another student's actions or failure to act according to BCSTEP rules of conduct.

6. I agree to compensate for damage or loss sustained, or expenses incurred by my student.

I certify that I have read this Release form.

Parents/Guardian Name__________________________________________________________

Please Print

Signature of Parents/Guardian_____________________________________________________

Preferred Contact (Phone or Email)______________________________________________