



Colorado Association of Black Professional Engineers and Scientists

## STUDENT MEMBERSHIP APPLICATION

SECTION A – Student Information			
First	Middle	Last	Age
Current Date	Student's birth date	Male { _ } Female { _ }	
School	Grade school level	Race/Ethnicity	
Parent(s) Name		Relationship to Student	
Address			
City		State	Zip Code
Home Phone #	Student Cell #	Parent's contact #	
Parent E-mail Address		<b>Student E-mail Address</b>	
Do you check your email daily? Yes No		Employer's Name (Optional)	
Emergency contact name (relationship to student)		Emergency Phone #	

**Notes: Please notify CABPES of any address or telephone number changes.**

### SECTION B - JETS (Junior Engineers Tomorrow's Scientists) Program

*Please rank which JETS class you are interested in attending, with number one (1) being your first choice. You may be placed in a different class than your first choice if that class is filled or you do not meet the course pre-requisites*

- \_\_\_ Architecture (9<sup>th</sup> to 12<sup>th</sup> Graders)
- \_\_\_ Introduction to Programming and Web Design (6<sup>th</sup> to 8<sup>th</sup> Graders)
- \_\_\_ Civil Engineering (8<sup>th</sup> to 12<sup>th</sup> Graders)
- \_\_\_ Aerospace Engineering (9<sup>th</sup> to 12<sup>th</sup> Graders)
- \_\_\_ Computer-Aided Design and Engineering – PRO/E (9<sup>th</sup> to 12<sup>th</sup> Graders)
- \_\_\_ Construction Mgmt Engineering (8<sup>th</sup> to 12<sup>th</sup> Graders)
- \_\_\_ Electronics (5<sup>th</sup> to 12<sup>th</sup> Graders)
- \_\_\_ Lego Robotics (5<sup>th</sup> to 8<sup>th</sup> Graders) must have turned 14 yrs old before 10/09

Have you attended the JETS program before? \_\_\_ Yes \_\_\_ No How many years \_\_\_\_\_

List all JETS classes you have previously attended. \_\_\_\_\_

How did you find out about CABPES? \_\_\_\_\_

## SECTION C - MEP (Math Enrichment Program)

Please indicate the MEP Module(s) for which you are registering:

\_\_\_\_\_ Math Skill Development (Monday and Wednesday)

\_\_\_\_\_ Math Homework Help (Monday and Wednesday)

*Indicate the course(s) in which you may need assistance. You may choose more than one.*

\_\_\_\_\_ Algebra      \_\_\_\_\_ Chemistry      \_\_\_\_\_ Pre -Calculus/Calculus      \_\_\_\_\_ Physics  
 \_\_\_\_\_ Pre-Algebra      \_\_\_\_\_ Trigonometry      \_\_\_\_\_ Probability/Statistics      \_\_\_\_\_ Geometry

List the name of the Math/Science book(s) or workbook you currently use at school.

\_\_\_\_\_

Math/Science teacher or counselor's name: \_\_\_\_\_

What was your final grade in Math last year?    \_\_\_ A \_\_\_ B \_\_\_ C \_\_\_ D \_\_\_ F

Have you attended the MEP before?    \_\_\_ Yes    \_\_\_ No    Year(s) attended. \_\_\_\_\_

## SECTION-D SAT (Scholastic Aptitude Test) Preparation Program

*Please select which SAT nine week session.*

\_\_\_\_\_ **Fall Session**  
 (Classes begin September 16, 2009)

\_\_\_\_\_ **Spring Session**  
 (Classes begin January 6, 2010)

Have you previously taken the SAT test?    \_\_\_ Yes    \_\_\_ No    If yes, please provide your score \_\_\_\_\_

## SECTION-E Payment (Complete for all Family Members)

**JETS**

# of Students \_\_\_\_\_ @ \$30 each (maximum \$60) = \$ \_\_\_\_\_

**Math Enrichment Program**

Math Homework Help and Skill Development Programs

# of Students \_\_\_\_\_ @ \$50 each semester or = \$ \_\_\_\_\_  
 maximum \$100 for the year

**SAT Preparation Program**

# of Students \_\_\_\_\_ @ \$30 each \$ \_\_\_\_\_

**TOTAL PAYMENT DUE** \$ \_\_\_\_\_

**Office Use**

Payment Amount Payment Type: Check or Cash	Payment Date	Special Arrangements Made

## **Required Student Essay for new and returning JETS/MEP/SAT students**

Students may register for programs by completing the forms and their portions as listed.

Each JETS and MEP student must submit an essay with their application describing themselves and their interest in CABPES. The essay should have their name, school and grade on the top. It should be 200 words for 6th through 8th graders and 300 words for 9th through 12th graders. It is preferred if it is typed and double-spaced. Some topics to include in the essay are:

**Tell us about yourself**

**How is your skill level in your math and science classes in school?**

**What interests you about math and science?**

**Why would you like to participate in a CABPES program?**

**What are you interested in learning about engineering and math?**

**How will you benefit from participating in the CABPES programs?**

**How will CABPES benefit by having you participate in their programs?**

### **Application Forms**

**Mail completed applications to:**

**CABPES**

**Fall 09-10 Registration**

**P.O. Box 200508**

**Denver, CO 80220**

**Or**

**E-mail to [CABPES@gmail.com](mailto:CABPES@gmail.com)**



Colorado Association of Black Professional Engineers and Scientists

**Junior Engineer's Tomorrows Scientists (JETS)  
Math Enrichment Program - Tutoring (MEP)  
SAT/ACT College Preparation**

**Program Schedule**

JETS/MEP/SAT hours will be from 6:00 to 8:00 PM. There will be a volunteer or staff member at the door from 5:45 to 6:15 p.m. for entry. Students must sign in every week. Students who arrive at class after 6:15 PM will be counted tardy. If you will be arriving later than that, a phone call is required. No one will be admitted into class after 6:30 p.m. unless previous arrangements have been made. **Consistent late arrivals to class will result in disciplinary actions.** There will be a scheduled break between 6:45 and 7:15 PM.

**Section I.**

**Student Expectations**

1. Students must be committed and willing to learn.
2. All Advisors, Tutors, Staff, CABPES visitors and fellow students will be **treated with respect.**
3. The following are considered unacceptable behavior and will result in disciplinary action: (see **Section II** for steps taken)
  - a. **Abusive or foul language**, acts of violence such as fighting or hitting.
  - b. Willful destruction of CABPES property or the property of a CABPES participant. This includes stealing and defacing the walls.
  - c. Fighting, hitting, pushing/shoving, disruption of the class - **keep your hands to yourself.**
  - d. Disruptive conduct during class, a field trip or a meeting.
  - e. Touching another student or their belongings without their permission.
  - f. **Text messaging or talking on your cell phone** during class is not permitted.
4. Students that access inappropriate Internet sites, not pertaining to the current work of the class, will be held accountable for their actions. Parents of student will be notified, and disciplinary action will be taken.
5. Students will bring no distractions to class (CD players, ipods, MP3 players, games, etc.). Cell phones must remain **OFF** during the entire class session. If rules are not followed – cell phones or electronic devices/equipment will be confiscated and returned to the parent at the end of class. **Calculators are not allowed** (with exception for advanced math (pre-calculus, calculus, physics and chemistry) **for math tutoring.**
6. During program hours, every student must always be working. Students not performing his/her work must either be helping another student with his/her work or doing an extra assignment assigned by the Advisor.

7. **Two (2) unexcused absences** of the JETS/SAT program are considered unacceptable, and will result in disciplinary actions and possible termination from JETS programs. **Discussion is needed prior to enrolling in this program if your child is a student athlete and will have difficulties attending scheduled classes. (We have students who are wait listed)**
8. Under no circumstances will students be allowed to leave the premises during the CABPES session without prior notice from parent/guardian. Parent/Guardian **must notify** the Program Director if a student needs to leave before the end of the class. Students must go to the Program Director's office to notify them when leaving early and sign out.
9. **Absolutely NO** food or drink allowed in classroom. Food and drinks are allowed in the break area **ONLY**. All trash must be placed in the appropriate trash cans.
10. Students must use the stairs unless they provide a doctor's excuse explaining why they are unable to climb stairs.
11. Late pick-up of students after a JETS/MEP/SAT class will result in a late fee of \$1/min up to \$15 maximum fee. Parents will need to come upstairs to pick up and sign out their student(s). Late pick up after 8:30 p.m. requires a \$15 payment before the student can attend classes again. If a student is picked up late twice, the student(s) and parent will need to appear before the CABPES Judicial Board.
12. Excessive tardiness (three or more) to a JETS/SAT/MEP program will be subject to appearing before the CABPES Judicial Board.

## Section II.

**If the student exhibits any behavior that is considered unacceptable based upon the CABPES rules, CABPES will take the following actions:**

1. The Executive or Program Director will talk with the student and the student's parent or guardian to try to understand the problem and encourage behavior modification.
2. The student will be required to appear before the CABPES Judicial Board for disciplinary action and possible termination from CABPES' programs.

## Section III.

CABPES Refund Policy for any JETS/MEP or SAT program – A refund is provided only if the parent/student decides they cannot commit to attending the first two classes of the selected program(s). No refund will be given if the student is asked to leave the program.

### **YOUR SUCCESS DEPENDS ON YOUR CONSISTENCY**

Student Signature \_\_\_\_\_ Date \_\_\_\_\_

Parent Signature \_\_\_\_\_ Date \_\_\_\_\_



Colorado Association of Black Professional Engineers and Scientists

## FIELD TRIP PERMISSION/PHOTOGRAPHY RELEASE FORM

Dear Parent(s):

The Colorado Association of Black Professional Engineers and Scientists (CABPES) encourage individualized and small group field trips to sites appropriate to the study of engineering and computer science.

If you approve of your son or daughter participating in such field trip(s), please complete this form and sign below.

Student name

\_\_\_\_\_

***(Please Print)***

I give my permission for my son or daughter to attend CABPES field trip(s).

The CABPES organization, its members, and any volunteer parents/students are not responsible for any accidents or illnesses, which may occur while my son or daughter, is participating in or being transported to and from any activity.

\_\_\_\_\_

Student's signature

\_\_\_\_\_

Date

\_\_\_\_\_

Parent or Guardian's signature

\_\_\_\_\_

Date

### **Photography Release**

CABPES also captures pictures and video of our students who participate in our math and engineering programs. If you approve of your son or daughter being photographed and/or video taped while participating in our program, please complete this form and sign below.

I/We give permission for CABPES to use photographs and/or video of my child for future advertisements of math and engineering programs/camps/field trips. I/We will not receive any compensation for usage of the photos or video footage.

\_\_\_\_\_

Parent/Guardian

\_\_\_\_\_

Parent/Guardian



CABPES is pleased to announce our 2009/2010 programs. The programs include the JETS (Junior Engineers, Tomorrow's Scientists) engineering classes, the Math Enrichment Program and the SAT Preparation Program.

### **JUNIOR ENGINEERS, TOMORROW'S SCIENTISTS (JETS)**

JETS classes are mostly held on Tuesday evenings with exception to a few classes that which may be offered on Wednesdays. Classes to be offered this year are:

- **Aerospace Engineering** introduces students to the fundamentals of aerospace engineering including principles of aerodynamics from the subsonic to the supersonic range, propeller and jet engine design, the basic control and flying surfaces of an airplane, and viewing real working aircraft at the Wings Over the Rockies Museum. The class also covers satellite design, and operations technology. The students are asked to complete classroom problems using NASA simulation software in addition to hands-on experience with the Microsoft Flight Simulator at the Museum. *Students must be in grades 9 to 12.*
- **Architecture** introduces students to this exciting profession and emphasizes the importance of the internal and external relationships of buildings. Students study the four basic steps to good design concept: site analysis, architectural program, site design and design of spaces and details. They work on a project that gives them an opportunity to experience the process necessary for completing an actual architectural project. *Students must be in grades 9 to 12.*
- **Civil Engineering** presents a variety of topics that cover all facets of civil engineering. Emphasis is placed on interactive learning and student participation in the following topics: surveying; concrete design including construction of actual concrete beams; wastewater and water treatment; urban planning and cost estimating; introduction to GIS (geographical information systems); dam design and construction; hydrology; railroad transportation. Several other areas are taught, with the final being bridge design; concluding in the design, cost estimation, and construction of scale-model wooden bridges. *Students must be in grades 8 to 12.*
- **Computer-Aided Design** uses Pro/Engineer software programs to introduce students to Computer-Aided Design programs in an effort to provide them with a better understanding of engineering and design software tools and applications. Students learn about the world of 3-D modeling and virtual simulation; create their own 3-D models; learn the elements to creating conceptual and detailed designs; gain an understanding of design integration; and learn how designers and engineers work together to produce a final product. *Students must be in grades 9 to 12.*
- **Computer Programming and Web Design** is designed to introduce students to the fundamentals of computers by providing each student with a "hands-on" computer experience. The topics will include computer design that offers exposure to the internal and external components of the computer; an introduction to programming with Qbasic and

Visual Basic; internet searches; and a section on web design that will feature designing a CABPES website for a final project. *Students must be in grades 6 to 8.*

- **Construction Engineering** introduces students to the various avenues within the construction industry. Studies include concrete and steel, construction plans/drawings, virtual design and construction, green building and much more. Students will have a variety of opportunity with "hands-on" activities and field trips. This course will include field trips that may be on Saturdays, replacing Thursday classes. Students should be prepared to attend the field trips. *Students must be in grades 8 to 12.*

- **Electronics/Electrical Engineering** consists of a beginner's introduction to electronics, giving students exposure to basic concepts, as well as the opportunity to gain insight into a career in electrical engineering. Students explore electronics by discussing and demonstrating basic electronics principles, components and products. Topics include the structure of the atom, concepts of voltage, current, resistance, frequency, digital logic, and how engineers develop a product. There are "hands-on" labs built around the class discussions, in which they learn concepts such as Ohm's Law and how to use electronic test equipment. *All students may participate in this class.*

- **First LEGO League.** CABPES will also participate in the First LEGO League (FLL) for the first time this year. FLL is a global robotics program that ignites enthusiasm for discovery, science and technology. *Students must be ages 9 to 14.*

## MATH ENRICHMENT PROGRAM

The Math Enrichment Program meets on Monday and Wednesday evenings this year. It offers support to students that are struggling with math through individual tutoring and skills development to ensure that students get the assistance that they need with their homework and extra attention to the topics with which they are struggling. Students are required to bring their homework and supplementary worksheets will be used to improve skills. Testing will be done at the beginning of the program to determine the student's math level. Participation in the Math Enrichment Program will require periodic reporting of school grades.

## SAT PREPARATION PROGRAM

The SAT Preparation Program offers session in the fall and spring on Wednesday evenings. The program goal is to assist students in their preparation for the SAT. We will familiarize the student with: (1) what is measured by the SAT, (2) the structure of the test. (3) test taking tips to enhance performance, (4) the major concepts of the test and (5) strategies for each test section. It will also provide students with an opportunity to develop an essay, college application and scholarship application.

### Fee Structure

JETS	\$30 per year
Math Enrichment Program	\$50 per semester /\$100 per year
SAT Preparation Program	\$30 per course