



### **Choosing Your Strand:**

When students apply to GSST, they are asked to choose one of three strands. The choice of strand determines the science courses that the student will be taking during his or her two years at GSST. All students take the same research courses, regardless of strand, and math placement is determined by past math course work and achievement on our placement testing. Our science courses contain rigorous, college-level science content, infused with real-world applications from emerging technologies and fields of study.

### **Biological Sciences:**

**Courses:** 11th grade: College Chemistry, 12th grade: College Biology

**Appropriate for:** Students considering careers in the health sciences, life sciences, biology or chemistry research or engineering

**Unique opportunities:** extensive lab work, including restriction enzyme analysis, PCR, CRISPR/Cas and comparative physiology of aquatic, amphibian, and terrestrial mammals through dissection labs

*Prerequisites: Biology, Chemistry, and Math minimum of Algebra II / Trig*

*Recommended students take Physics at their home school division*

### **Engineering:**

**Courses:** 11th Grade: Calculus Based Physics, 12th Grade: Modern Physics

**Appropriate for:** Students considering engineering and other STEM careers

**Unique opportunities:** In the EDIE (Engineering Design, innovation and Entrepreneurship) Lab, students learn digital electronic systems, CAD (Computer Aided Design) and the engineering design process. This knowledge is applied to keystone engineering design projects, such as the AIRduino, a collaboration with The College of William and Mary, in which students will construct a microcontroller-based air pollution detector device, program it and collect data at various locations in the Hampton Roads region.

*Prerequisites: Biology, Chemistry, and Math minimum of PreCalculus*

### **Computational Sciences:**

**Courses:** 11th Grade: Computational Physics (algebra-based physics and programming); 12th Grade: C++ programming and introduction to data science

**Appropriate for:** Students interested in computer science, software engineering, data science, and related fields

**Unique opportunities:** The first year course teaches fundamental principles of physics and computational programming in Python. In the second year, students study C++ programming along with foundational concepts in data science, provided through a landmark pilot collaboration between GSST and the Computational Modeling and Data Analytics program at Virginia Tech.

*Prerequisites: Biology, Chemistry, and Math minimum of Algebra II / Trig*

### **What is PSP and how does it help Prospective Students and families stay informed?**

The goal of our Prospective Student Pipeline (PSP) program is to disseminate information about the Governor's School to as wide an audience as possible. If the Governor's School seems like something your child might be interested in, please sign up to receive our newsletters at

<https://nhrec.org/gsst/home/how-to-apply/information-for-prospective-students/> Scroll down to

**Prospective Student Pipeline Newsletter** and provide your contact information.

*\*Participation in the Prospective Student Pipeline does not guarantee acceptance into the Governor's School for Science and Technology.*