



Center for Bioelectronics

Bioelectronics STEM Summer Institute 2023 Application

Application for the following program:

- ☐ STEM Exploration (*Rising 6th & 7th Grader*)
- ☐ STEM Exploration II (*Rising 8th & 9th Grader*)
- ☐ Technology Exploration (*Rising 10th & 11th Grader*)
- ☐ Research in Bioengineering (*Rising 12th Grader*)

*****DO NOT ENCLOSE ANY PAYMENT WITH THIS
APPLICATION****

Registration: Participants may submit applications and supporting documents beginning February 15, 2023. Deadline for application and supporting documents is **Thursday, March 31, 2023 at 5:00 p.m.** Late or incomplete applications **will not** be processed.

PART ONE: STUDENT INFORMATION

Name: _____
Last First MI

Date of Birth _____ Age _____ Gender _____ Minority Group/Race _____

Street Address _____ City _____ Zip _____

Phone Number () _____ T-Shirt Size: (Adult) XS S M L XL XXL XXL

Name of School _____ Current Grade in School _____

PART TWO: PARENT/GUARDIAN

If selected, my child has permission to participate in the Bioelectronics STEM Summer Institute Program (BSIP). I acknowledge that attendance in the **Family Orientation Program** is **mandatory**. I understand that this is a residential program.

Signature of Parent/Guardian _____ Date _____

Name (Printed) _____

Phone Number _____ Email _____

PART III: COUNSELOR/TEACHER/SCHOOL OFFICIAL

I recommend _____ to participate in the Bioelectronics STEM Summer Institute Program. S/he has demonstrated academic potential and has an interest in Science, Technology, Engineering and/or Math.

Signature _____ Date _____

Name (Printed) _____

Title _____ School _____

PART IV: SUPPORTING DOCUMENTS

This application must be accompanied by the following items:

- Copy of the most recent semester grades and copies of grades for the past two semesters
- Copy of the most recent achievement test score(s) (*if applicable*), i.e. PSAT, SAT, ACT
- List of academic awards/honors and current school activities
- An essay (250 words) answering one of the following questions:
 - *How have your past accomplishments in science and engineering prepared you for the 2023 Bioelectronics STEM Summer Institute? (250 words), OR*
 - *How will the 2023 Bioelectronics STEM Summer Institute help you achieve your personal and educational goals? (250 words)*

Mail complete application and supporting documents to:
Bioelectronics STEM Summer Institute
Attn: Michelle M. King
4211 Monarch Way, Suite 300
Norfolk, VA 23508

GENERAL INFORMATION

The Center for Bioelectronics and its sponsors will be presenting the *2023 Bioelectronics STEM Summer Institute (SSI) Program*. The summer institute will be held at educational facilities on Old Dominion University (ODU) campus. The main office of SSI is located at ODU's Center for Bioelectronics in the Innovation Research Park Building II.

The Bioelectronics STEM Summer Institute Program is a *one-week residential* academic program for rising 6th -12th graders, respectively in the Hampton Roads area who express a design to pursue a career in Science, Technology, Engineering, and Math (STEM). The program provides students with information and research experience in various fields of Bioenergy, materials engineering, and medicine in order to acquaint them with the requirements for pursuing a career in STEM. Students participate in engineering related classroom projects and blend materials engineering and medical research to solve real world problems. All students enjoy visiting local area firms to witness firsthand, the work of engineers and scientist as well as attend lectures by practicing engineers in various fields.

Students who apply for the program should meet the following criteria:

- Be a member of an underrepresented group in STEM: African American, American Indian, Hispanic, Female, Socioeconomically Disadvantaged.
- Be interested in learning about STEM as a career.
- Be academically talented, especially in science and mathematics.

The application and all supporting documents must be received by March 31, 2023 at 5:00 p.m. Students will be advised of their acceptance by late April 2023.

PROGRAM DESCRIPTIONS

Program Dates 6/26/2023 – 6/30/2023

STEM Exploration: For rising 6th and 7th graders. The STEM Exploration introduces students to the practice of science and engineering and familiarizes them with Science and Engineering as a profession. Practicing engineers are invited to talk to the students about their job and arrangements will be made for the students to visit Busch Gardens. They will also participate in science and engineering related projects and present them at the closing ceremonies.

STEM Exploration II: For rising 8th and 9th graders. The STEM Exploration II is an expansion of STEM Exploration I. Students will take a deeper dive into Science and Engineering as a profession. STEM Exploration II is aimed at cultivating the scientific method in all aspects of the research projects. In addition, the students will attend engineering seminars given by professionals. Arrangements will be made for the students to tour local industries and businesses and visit Busch Gardens.

Technology Exploration: For rising 10th and 11th graders. Technology Exploration is designed to encourage students who are interested in engineering, medicine, physics, chemistry, materials science, biology, or any relevant sciences. Every facet of STEM utilizes cutting edge technology to advance research. This program will introduce students to different facets of computational research and give them skills to help them pursue scientific research as a potential career, and to prepare these students for undergraduate studies in a higher-Education Institution.

Research in Bioengineering: For rising 12th graders. This intensive research program exposes students to research design in bioenergy harnessing and cancer diagnostics and therapeutics. The students will be given the opportunity to apply their design process with a sound academic basis that is integrated with their theoretical knowledge to bring useful diagnostic and therapeutic tools to reality. The topical integration is reflected in the design of self-powered sensors and the development of diagnostic and therapeutic tools for breast cancer.

TRANSPORTATION

Transportation for all field trips will be provided by SSI.

LODGING

Old Dominion University Housing and Residence will make residence hall lodging available for all students participating in SSI. Residential Assistants (RAs) will provide supervision and security in the residence halls. Participants will be issued individual room keys.

FEES

A non-refundable program fee of **\$850** is required. The fees will help to offset administrative costs incurred to run the Bioelectronics Summer Institute Program. Included in the fees is the field trip to Busch Gardens amusement park. A \$30 fee will be charged for all checks returned for insufficient funds. This fee covers charges SSI incurs from the bank(s). Do not enclose any payment with this application.

Bioelectronics SSI Use Only

Mathematics Average Grade _____ Science Average Grade _____ Test Scores _____

Committee Decision: Accept _____ Decline _____ Waitlist _____ Board Member Signature _____

Notes _____