



## **Chesapeake Student Recruitment Early Advisement and Mentoring Program**

**Summer 2019**

### **Chesapeake Bay Management, Policy, and Analysis Internships Chesapeake Bay Program Partnership Office, Annapolis, MD**

The Chesapeake Student Recruitment Early Advisement and Mentoring (Chesapeake StREAM) Program is designed to recruit talented, passionate students from underrepresented communities to gain professional experience from engagement with environmental agencies, academic institutions, and other partners involved with the Chesapeake Bay Program partnership. The Chesapeake StREAM program looks to further develop passionate students into outstanding leaders and role models in the fields of natural sciences, engineering and mathematics, with an emphasis on environmental science, management and policy as it relates to the restoration of the Chesapeake Bay, its watershed and living resources. Additional information about the Chesapeake StREAM program is available at [www.chesapeake.org/c-stream/](http://www.chesapeake.org/c-stream/).

The Chesapeake Research Consortium ([www.chesapeake.org](http://www.chesapeake.org)) and the Chesapeake Bay Program ([www.chesapeakebay.net](http://www.chesapeakebay.net)) partnership seek three (3) summer C-StREAM program students to provide support to Chesapeake Bay Program (CBP) partnership's goal implementation teams and workgroups at the Chesapeake Bay Program's Office in Annapolis, MD. The Chesapeake Bay Program partnership manages the restoration of the Chesapeake Bay by coordinating efforts of various federal, state, and local governments; academic institutions; local watershed organizations; concerned citizens and others to build and adopt policies that support Chesapeake Bay restoration and conservation.

### **There are three (3) C-StREAM program student opportunities available at the Chesapeake Bay Program Office for summer 2019:**

#### **(1.) Land Conversion GIS Analysis**

The Chesapeake Bay Program's GIS team is undertaking a variety of projects related to analyzing land cover and land use change and quantifying the potential impacts of land conversion to water quality, healthy watersheds and communities. Types of land conversion of interest include urbanization, silviculture, and oil and gas extraction to name a few. Impacts of interest include loss of wildlife habitat, degradation of aquatic communities, erosion and sedimentation, alteration of stream flow, and adverse effects on under-served communities. The C-StREAM program student will work with a team of diverse professionals in geography and environmental science to develop a study plan, use geospatial data and resources, and explore relationships between land use change and impacts on natural resources and communities.

This work will be relevant to follow-up on independent research at the student's home institution in any of the following disciplines: Geography, Planning, Public Policy, Political Science, and

Environmental Science.

### **(2.) Tidal Water Quality Data Analysis**

The Chesapeake Bay Program (CBP) is analyzing spatial and temporal trends in tidal water quality to help inform managers and planners in their restoration efforts and policies. CBP has over 30 years of data in the tidal waters including water quality monitoring and assessments of water quality standards for living resources. The C-StREAM program student would work with a group of research scientists to assess spatial and temporal trends in water quality over time in the Bay using statistical techniques, GIS and mapping. Smaller projects within this subject area may be undertaken including assessing trends in water quality in a small, local tributary, and analyzing adequate habitat for living aquatic resources based on water quality. Results of the work could include publications, journal articles and decision-making tools.

This work would be relevant to follow-up independent research at the student's home institution in any of the following disciplines: Environmental Science, Ecology, Public Policy, Aquatic Biology.

### **(3.) Decision Support Tool Inventory**

The Chesapeake Bay Program and its partners are constantly developing and using decision-support tools that allow stakeholders to utilize technical information to guide management and policy decisions and restoration and conservation efforts. Countless tools exist, each with their own specific audiences and uses. Stakeholders often cannot easily determine which tools should be used to answer their questions, and many times do not even know the full breadth of tools available to their disposal. The C-StREAM program student would work with a team at CBP, including the GIS team, to inventory decision-support tools available both within the partnership and outside. The project would entail testing these different tools, compiling information on their use, and building a database and easy look-up product for the CBP's partners to help them navigate the universe of decision-support tools. We envision the intern presenting these products to multiple groups of CBP stakeholders.

This work would be relevant to follow-up independent research at the student's home institution in any of the following disciplines: GIS, Environmental Science, Environmental Policy, Public Policy.

Additional placements within the C-StREAM program outside of the Chesapeake Bay Program office may also be available. Information on those postings are available at [www.chesapeake.org/c-stream/](http://www.chesapeake.org/c-stream/).

### **Opportunities and Expectations**

These internships will provide a unique opportunity to contribute to large-scale, long-term natural resource management and policy development critical to understanding new ways to manage Chesapeake Bay living resources most effectively and efficiently across the Chesapeake Bay watershed. The students will gain experience in natural resource management, restoration science, ecology, and environmental policy. These position will also provide an opportunity to expand the students' knowledge of the Chesapeake Bay watershed's ecological resources, the Chesapeake Bay Program partnership, and the technologies related to analyzing and monitoring data collected by the Chesapeake Bay Program and its partners. These positions will provide insights into careers in natural resource management, policy development and science beyond those applied for and allows the students to make connections with established environmental management and science professionals. Finally, the students will have the opportunity to present work conducted and experience gained to Chesapeake Bay Program staff at the conclusion of the internship.

### **Desired Qualifications and Skills**

- Must be a college-level student from an underrepresented or underserved community entering sophomore, junior, or senior year of undergraduate study.
- Experience or coursework in natural sciences, environmental science, environmental studies, environmental policy and management or a related course of study.
- Experience working with GIS. (GIS skills required for opportunity 1, a plus for opportunities 2 and 3.)
- Ability to analyze various sets of data to report potential findings.
- Knowledge of and/or comfort in researching peer-reviewed journals and literature reviews.
- Motivated self-starter with ability to work and reason independently.
- Experience working with Microsoft Office applications.
- Interest in learning how a diverse, governmental-environmental-management partnership makes decisions effectively and sets and achieves goals through collaborative and regulatory processes.
- Must successfully complete a security background check.

### **Work Location and Duration**

This position will be stationed at the Chesapeake Bay Program Office in Annapolis, Maryland. The position will begin in May and conclude in August (12 weeks). Computer and phone services will be provided.

### **Compensation**

The intern will be reimbursed at the end of each month, for a total of approximately \$5,000 for the equivalent of 12 weeks of full-time activities (480 hours). Candidates should expect to follow a normal weekday work schedule (40 hours) with occasional variations. No benefits are provided. A \$1,000 housing stipend may be available to selected students where necessary.

### **Diversity and Inclusion**

The EPA Chesapeake Bay Program Office and the Chesapeake Research Consortium are committed to supporting a diverse and inclusive, science oriented workforce. Our internship program endeavors to recruit from a diverse, qualified group of potential applicants to secure a high-performing workforce drawn from all segments of American society. The CBP and CRC are strongly supportive of broadening the participation of Historically Black colleges and universities (HBCUs), Hispanic serving institutions, tribal colleges and universities, and institutions that work in underserved areas. We highly encourage applications from students from any of the above institutions.

### **Application Instructions**

Application instructions are available at [www.chesapeake.org/c-stream/](http://www.chesapeake.org/c-stream/).

**The deadline to submit applications is April 9, 2019.**