Department of the Navy (DoN)
Historically Black Colleges and Universities and Minority Institutions (HBCU/MI) Program

NAVIGATING
CHARTERED WATERS 2021
The DoN HBCU/MI Program operates under the authority of the 10 United States Code (Sec. 2362), “Research and Educational Programs and Activities: Historically Black Colleges and Universities and Minority Serving Institutions of Higher Education.” Via this legislation, the secretary of defense, acting through the assistant secretary of defense for Research and Engineering and the secretary of each military department, is authorized to execute a program that supports defense-related research, development, testing and evaluation (RDT&E) activities at covered educational institutions. In addition, Section 2362 authorizes funding or technical assistance for:

- conducting RDT&E activities or implementing educational enhancements in areas important to national defense
- attracting and retaining faculty in scientific disciplines important to national security
- establishing partnerships between HBCU/MIs and defense laboratories, government defense organizations, the defense industry and other institutions of higher education
- enhancing defense-related RDT&E activities at HBCU/MIs via non-monetary assistance as the Secretary of Defense finds appropriate.

Finally, beginning with Executive Order 12232, signed in 1980 by President Jimmy Carter, each subsequent U.S. president has signed an executive order to increase opportunities for minority institutions defined in 42 U.S.C. 7141(f) (3).

President Donald Trump, in signing Executive Order 13779 on Feb. 28, 2017, continued the commitment of the Executive Branch to strengthen the capacity of, and increase the access to, federal funding for HBCUs (Executive Order 13779).
I have the distinct honor of leading the Department of the Navy (DoN) HBCU/MI Program and presenting its 2021 outlook: **NAVIGATING CHARTED WATERS**. My primary goal as director is to expand the opportunities for HBCU/MIs to become premier institutions that are tasked with conducting naval-relevant research.

We are in a race to win in the global science and technology arena, and it will take a diverse group of scientists and engineers to achieve this goal. HBCU/MIs have the diverse science, technology, engineering and mathematics (STEM) capacity to lead in the field of scientific discovery and innovation. Diversity in STEM is what helps to promote pride and enthusiasm between academia and the Naval Research Enterprise (NRE).

As director of the DoN HBCU/MI Program, I get the amazing opportunity to be associated with the greatest minds in academia, including remarkably talented students and highly regarded faculty. Students and faculty at HBCU/MIs, as well as naval engineers and scientists, have the unquestionable duty to fight through social, fiscal and scientific barriers to ensure that we solve science and technology challenges through diversity of thought, philosophy of understanding and theory of learning.

I am excited to be a part of the world’s greatest Navy and to be intimately engaged in providing opportunities for HBCU/MIs that encourage COMMUNICATION, COORDINATION AND CULTIVATION.

Best,

Anthony C. Smith Sr.
Director/Program Manager
Department of the Navy HBCU/MI Program

"HBCU/MIs have a rich history of conducting top-notch, innovative, world-class research. In the span of their existence, they have educated generations of African-Americans who have gone on to become recognized experts in the STEM field. If our great nation wants to continue to maintain a scientific competitive edge, HBCU/MIs will play a vital role in making this happen."

ANTHONY C. SMITH SR.
VISION
Expand HBCU/MI access to research opportunities to address naval research priorities and leverage vital expertise from HBCU/MIs toward scientific solutions that will lead naval forces into a new age of discovery.

MISSION
To develop strategic partnerships for HBCU/MIs and naval research entities that enhance capabilities and foster new research opportunities. As a result, these academic institutions will become key players in providing scientific and technological breakthroughs that deliver high-quality outcomes and critical solutions for the Department of the Navy.
The DoN HBCU/MI Program is built upon three tenets:

1. **COMMUNICATE**
   robust research that addresses critical naval science and technology challenges through collaboration with naval scientists, engineers and academic researchers.

2. **COORDINATE**
   symbiotic engagement between naval researchers, industry partners and minority-serving institutions to advance naval-relevant research.

3. **CULTIVATE**
   long-term partnerships that leverage knowledge sharing and empower scientific global discovery.
"The DoN HBCU/MI program is at the forefront of the nation’s struggles against institutionalized discrimination, systemic inequality and anti-Black racism."

Alexander Zhakidov
DoN HBCU/MI Program Funding Opportunity Announcement Awardee
The DoN HBCU/MI Program is working to bring awareness to the nation that the value of students and faculty at HBCU/MIs is crucial to maintaining a competitive edge within the STEM field. Students and faculty are primed to provide the research rigor and academic acumen necessary to address high-risk science and technology challenges.
Overview:
This eight- to 10-week research opportunity allows students to participate in research, development, testing and evaluation (RDT&E) in support of naval aviation. Selected interns will spend the summer under the guidance of a mentor conducting research in areas including human systems engineering and integration, airplane design and propulsion, information technology, cyber, data fusion, communication and navigation, air vehicle design and propulsion, energetics and more.

Program Benefits:
This opportunity allows interns to gain real-world, hands-on experience and research skills related to naval aviation science and technology (S&T) challenges, while being introduced to the Navy and Marine Corps S&T environment.

Majors:
Physics, computer science, chemistry, biology, biochemistry and engineering: aerospace, chemical, electrical, industrial and mechanical.

Eligibility:
Undergraduate/graduate student participants must be U.S. citizens with a minimum grade point average of 2.5 and enrolled in an accredited four-year HBCU/MI. Students enrolled in a two-year HBCU/MI college may be considered. A background check is required.

Application link: [http://tinyurl.com/yyban24l](http://tinyurl.com/yyban24l)

Contact:
donhbcumiprogram@navy.mil

“In addition to having a mentor and access to rich networking opportunities, NAVAIR HBCU/MI interns gain real-world, hands-on experience and research skills related to naval aviation.”

Maria Thorpe
NAVAIR HBCU/MI Internship Coordinator
Overview:
This 10-week comprehensive, multi-component internship is for talented HBCU/MI students interested in STEM disciplines. The program provides interns an opportunity to conduct hands-on, doctoral-level research with an objective to encourage students to pursue advance degrees and careers in scientific research. Potential research areas include: wireless power, systems biology, catalytic sorbent synthesis, microstructural studies of advanced steels, nanoparticle synthesis and characterization, unmanned underwater/aerial vehicle design and navigation, chem-bio sensor design, protein engineering, solar radio astronomy and more.

Program Benefits:
Participants will gain valuable experience and actively participate in innovative science and technology research. Interns will be motivated to pursue graduate degrees in STEM disciplines and aspire toward careers in scientific research and/or teaching. In addition to gaining research experience, participants’ skillsets will be enhanced through professional and career development workshops.

Majors:
Biochemistry, biology, chemistry, computer science, environmental science, information technology, mathematics, physics and engineering: aerospace, bioengineering, biomedical, chemical, civil, electrical, environmental, materials, mechanical.

Eligibility:
Undergraduate/graduate student participants must be U.S. citizens. Applicants must be fluent in English, maintain a minimum grade point average of 3.0 and be enrolled in an accredited four-year HBCU/MI. Candidates must undergo a background security investigation.

Contact:
donhbcumiprogram@navy.mil

“I’m amazed at how impactful this internship has been on my life. It is gratifying to interact with people so driven and dedicated to all things STEM. I plan to carry on the research we’re doing now, through to a PhD.”

Tafadzwa Chigumira
Former NRL HBCU/MI Intern
Overview:
This dual-phased program is designed to be the Navy’s premier cyber outreach effort for undergraduate and graduate computer science/engineering students attending our nation’s HBCU/MIs. Over a six–seven month time span, students will work in teams, directly with NAVWAR technical professionals, on mission-critical cyber-related initiatives.

Program Benefits:
During Phase I of the program, students participate in monthly mentoring cyber workshops led by NAVWAR technical personnel, either on campus, via virtual telecommunication or a combination of both. During Phase II of the program, students transition to interns and become immersed in CS/IA research projects focused on protecting and defending the nation's information systems networks and outmaneuvering cyber adversaries. Combined, these experiences enable students to gain real-world, hands-on experience and research skills while being introduced to the DoN’s cyber force.

Majors:
Computer science/engineering, cybersecurity, data science.

Eligibility:
Undergraduate/graduate student participants must be U.S. citizens with a minimum grade point average of 3.0 and be enrolled in an accredited four-year HBCU/MI. A background check is required.

Contact:
donhbcumiprogram@navy.mil

"NAWVAR HBCU/MI cyber interns work in teams, on real-world challenges, alongside subject matter experts in cybersecurity and data science. This program provides unparalleled technical work experience and an expanded network of support."

Maurice Civers-Davis
NAVWAR HBCU/MI Cybersecurity/Information Assurance Internship Coordinator
Overview:
This eight- to 10-week program allows competitively selected undergraduate students to conduct targeted business analytics studies in support of optimization and simulation of naval supply chain operations. Potential research areas include data science, data analytics, logistics and quality engineering and logistics information management systems.

Program Benefits:
Participants will spend the summer under the guidance of a mentor conducting real-world, hands-on experience in naval data science and logistics engineering. Interns will gain an edge in the job market, establish networking opportunities, expand knowledge of the Navy's competencies in supply chain management and optimization, and increase awareness of civilian opportunities within NAVSUP.

Majors:
Computer information systems, supply chain management, industrial engineering, systems engineering and mathematics.

Eligibility:
Undergraduate/graduate student participants must be U.S. citizens with a minimum grade point average of 3.0 and be enrolled in an accredited four-year HBCU/MI. A background check is required.

Contact:
donhbcumiprogram@navy.mil

"Interns continue to be a vital resource in the nation's educational system and a substantial asset to NAVSUP. Their strength is the diversity that helps to transform both the student and the Department of Defense in an insurmountable way."

Marvin Williams, Ph.D
NAVSUP HBCU/MI Internship Coordinator
Overview:
This program provides recent post-doctoral STEM graduates an opportunity to pursue challenging research problems focused on addressing future-facing Department of Defense and Department of the Navy (DoN) efforts. The program is based at the U.S. Naval Research Laboratory (NRL) in Washington, D.C., and seeks to engage postdocs within one year of graduation.

Program Benefits:
Research Associates (RAs) selected for participation will conduct state-of-the-art research for military and DoN applications with the prospect of establishing new boundaries of scientific exploration. New RAs are teamed with select NRL principal investigators on tailored projects of mutual interests designed to achieve maximum productivity. In addition, RAs are provided professional workshop modules for career development and a stipend supplemented with relocation cost and benefits.

Majors:
Biochemistry, biology, chemistry, computer science, environmental science, information technology, mathematics, physics and engineering: aerospace, bioengineering, biomedical, chemical, civil, electrical, environmental, materials, mechanical.

Eligibility:
Ph.D candidates must be U.S. citizens, must have a minimum grade point average of 3.0 and be enrolled in an accredited four-year HBCU/MI. The candidate must also undergo a background security investigation.

Contact:
donhbcumiprogram@navy.mil

“The DoN HBCU/MI Post-Doctoral program provides a unique opportunity for creative, versatile scholars to explore science and technology boundaries via high-impact, state-of-the-art research. Our program prepares scientists for success.”

Paul Charles
NRL HBCU/MI Post-Doctoral Research Program Coordinator
Overview:
The Naval Science Awards Program (NSAP) is a Navy and Marine Corps program that encourages our nation’s students, at the junior high and high school levels, to develop and retain an interest in STEM through participation in state and regional science fairs.

NSAP recognizes the accomplishments of student projects at regional and state science and engineering fairs. The Office of Naval Research (ONR) awards one $10,000 Chief of Naval Research Scholarship to a deserving high school student.

Program Benefits:
NSAP recognizes the accomplishments of student projects at local, regional and state science and engineering fairs. Each award winner at the middle school level will receive a letter of congratulations from the Chief of Naval Research (CNR), a certificate of achievement and a medallion. Award winners at the high school level will receive a letter of congratulations from the CNR, a certificate of achievement, a medallion, a monetary reward of $50 (in the form of a gift card) for local and regional science fairs, and a $75 gift card for state science fairs. At the end of science fair season, ONR also awards one Chief of Naval Research Scholarship, valued at up to $10,000, to one outstanding student at the International Science and Engineering Fair.

Eligibility:
Any local, regional and state science and engineering fair, where two or more middle or high schools are represented is eligible to register with NSAP. All regional and state fairs must be registered with the program. For more information visit: https://www.onr.navy.mil/nsap/

Contact:
donhbcumiprogram@navy.mil

"Just as the best athletes are trained and nurtured, we believe that young scientists and engineers should be recognized for achievements in their journeys. The Naval Science Awards Program (NSAP) cherishes the opportunity, through science fairs, to showcase the scientific triumphs of our students."

Kris Lee
NSAP Coordinator
SUMMER FACULTY RESEARCH PROGRAM (SFRP)

Overview:
This program provides an opportunity for faculty to participate in research at a naval laboratory or warfare center, over a 10-week period, from May through August. The goal for the program is to engage faculty in research projects that contribute to the science and technology mission and vision of the Navy and the Marine Corps.

Program Benefits:
As SFRP Fellows, faculty have the opportunity to broaden their research expertise and interests while establishing a foundation for future research collaborations. Fellows have access to state-of-the-art equipment and other resources that would not be available at their home institutions.

Research Areas:
Materials science, cyber security, acoustic science and technology, organizational effectiveness, cognitive neuroscience, ship machinery systems, optical science, bio-medical science and more.

Eligibility:
Applicants must be U.S. citizens who hold teaching or research appointments at any accredited U.S. college or university to include minority-serving institutions that have been deemed as such by the U.S. Department of Education. Security clearance and access requirements vary from laboratory to laboratory. Details can be obtained from the individual lab coordinators.

Contact:
donhbcumiprogram@navy.mil

"The Navy is on the cutting edge of technology on land, in the air, on water, and under the sea. By participating in SFRP and SLP, fellows work on real world applications in any and all of these areas."

Clarence T. Brown
SFRP and SLP Coordinator
Overview:
This program provides an opportunity for faculty to participate in naval-relevant research at a Department of the Navy laboratory or warfare center during the academic school year.

The Sabbatical Leave Program (SLP) provides fellowship appointments for a minimum of one semester to a maximum of one year. SLP participants receive a monthly stipend from the lab or warfare center to cover the difference between salary and sabbatical leave pay from their home institution. Relocation and travel assistance are provided to qualifying participants.

Program Benefits:
Faculty work with naval scientists and engineers to conduct research of mutual interest to them and the Navy and the Marine Corps.

Research Areas:
Materials science, cyber security, acoustic science and technology, organizational effectiveness, cognitive neuroscience, ship machinery systems, optical science, bio-medical science and more.

Eligibility:
Applicants must be U.S. citizens who hold teaching or research appointments at any U.S. college or university to include minority-serving institutions that have been deemed as such by the U.S. Department of Education. Security clearance and access requirements vary from laboratory to laboratory. Details can be obtained from the individual lab coordinators.

Contact:
donhbcumiprogram@navy.mil

"I was able to collaborate on novel, challenging projects and build lasting professional relationships with my research group. I would encourage participation in the program as a way to broaden skills and knowledge outside of academics."

Lisa D. Blalock
Former SLP Fellow
Overview:
This program enhances infrastructure for HBCU/MIs by augmenting start-up funding for recruiting new, untenured faculty whose teaching and research could impact Department of Defense needs in materials science and engineering (MS&E). A two-year grant is provided to selected HBCU/MIs to help attract faculty members primarily in MS&E or allied disciplines.

Program Benefits:
The intent of this program is to increase the competitiveness of minority-serving institutions (MSIs) by providing additional funding that would be used in conjunction with existing start-up packages to attract talented researchers to HBCU/MIs and help ensure they remain there by fast-tracking their research programs. Proposals must be submitted by provosts as principals investigators with deans as co-principals investigators. Funding levels vary according to institution type:
- Doctoral/master’s institutions are eligible to receive up to $200,000.
- Undergraduate institutions are eligible to receive up to $100,000.

Funding Considerations:
Grant funds can be used for equipment, supplies, services, travel, student support (including high school students, undergraduate/graduate students, technicians and post-doctoral research associates), summer salary and, on a limited basis, laboratory renovation.

Eligibility:
Grant funds should not be used as a buy-out from teaching. It is assumed that the untenured, new faculty member will be provided a reduced teaching load during the first or second academic year.

Contact:
donhbcumiprogram@navy.mil

"Our two faculty were allowed to hit the ground running, establish meaningful collaborations, get published early and get on track for a successful tenure application."

Anderson Sunda-Meya
Faculty Startup Program in Materials Science and Engineering Program Liaison
Xavier University of Louisiana
DON HBCU/MI FUNDING OPPORTUNITY ANNOUNCEMENT (FOA)

Overview:
This program supports naval-relevant research at HBCU/MIs. Interested minority-serving institutions (MSIs) submit white papers that adhere to the criteria indicated in the FOA and outline the motivation, relevance and potential impact of research projects. After a review of white papers, a select few subsequent full proposals will be invited for submission.

Program Benefits:
Participant institutions will ultimately enhance their research capacity while contributing to the science and technology (S&T) mission and vision of the Navy and Marine Corps. Grants will be up to $150,000 per year for a maximum of three years.

Evaluation Criteria:
White papers and invited full proposals will be evaluated based on:
- Naval-relevant S&T challenge and Navy program officer/program manager.
- Technical merit
- Student engagement

Eligibility:
To be eligible, principal investigators must be U.S. citizens who hold teaching or research appointments at MSIs deemed as such by the U.S. Department of Education.

Contact:
donhbcumiprogram@navy.mil

“The DoN HBCU/MI FOA is the perfect opportunity for awarding winning faculty from HBCU/MIs to conduct world-class, naval-relevant research alongside the Navy’s finest scientist and engineers.”

Anthony C. Smith Sr.
Director, Department of the Navy HBCU/MI Program
Under SECNAV Instruction 5402.31A, the DoN HBCU/MI Program is supported by 11 Administering Offices (AO) of the Navy and their subordinate organizations to assure sufficient understanding and accomplishment of the Navy program goals. The program is also supported by a three-member advisory board as shown in the chart. Each AO is directed to:
- Designate representatives responsible for the program and activities within the AO.
- Publish an AO internal statement of HBCU/MI policies.
- Establish budgetary and other planning to support HBCU/MI efforts within the AO.
- Implement guidance and instructions issued by the HBCU/MI program manager.
**MSI DEFINITIONS**

For the purpose of this program, HBCU/MIs include a number of minority-servicing institutions (MSIs).

**Alaska Native-Serving Institutions**
- A postsecondary institution that receives federal discretionary funding to improve and expand its capacity to serve Alaska Native students. At these colleges and universities, undergraduate students who identify as Alaska Native make up at least 20 percent of total enrollment.

**Asian American Native American Pacific Islander-Serving Institutions**
- An AANAPISI is an institution that receives federal discretionary funding to improve and expand its capacity to serve Asian Americans and Native American Pacific Islanders and low-income students. At AANAPISIs, undergraduate students that identify as Asian American and Native American Pacific Islander make up at least 10 percent of total enrollment.

**Historically Black Colleges and Universities**
- HBCUs are colleges and universities that were founded before 1964 and were originally intended to provide higher education to African American communities. There are 105 HBCUs in 20 states, the District of Columbia and the U.S. Virgin Islands. Though they represent less than 3 percent of all colleges and universities, they are responsible for awarding 18 percent of all degrees earned by Black undergraduates.

**Hispanic-Serving Institutions**
- An HSI is an institution that receives federal discretionary funding to improve and expand its capacity to serve Hispanic and low-income students. Undergraduate students who identify as Hispanic make up at least 25 percent of total enrollment at HSIs.

**Native American-Serving Non-Tribal Institutions**
- A postsecondary institution that is not affiliated with American Indian and Native Alaskan tribes and receives federal discretionary funding to improve and expand its capacity to serve Native American students. At these colleges and universities, undergraduate students who identify as Native American make up at least 10 percent of total enrollment.

**Native Hawaiian-Serving Institutions**
- A Native Hawaiian-serving Institution is a postsecondary institution that receives federal discretionary funding to improve and expand its capacity to serve Native Hawaiian students. At these colleges and universities, undergraduate students who identify as Native Hawaiian make up at least 10 percent of total enrollment.

**Predominantly Black Institutions**
- A Predominantly Black Institution is a postsecondary institution that receives discretionary funding to improve and expand its capacity to serve Black students as well as low-income and first-generation college students. Undergraduate students who identify as Black make up at least 40 percent of total enrollment, and students who identify as low-income and/or first-generation college students make up at least 30 percent of total enrollment.

**Tribal Colleges and Universities**
- TCUs are colleges and universities associated with American Indian and Native Alaskan tribes. There are 32 fully accredited TCUs, and most are public institutions located in rural areas in the Midwest and Southwest. The federal government provides grants and related assistance to TCUs to enable such institutions to improve and expand their capacity to serve American Indian and Native Alaskan students.
RESOURCE LINKS

U.S. DEPARTMENT OF THE NAVY’S (DoN) HBCU/MI PROGRAM

OFFICE OF THE UNDER SECRETARY OF DEFENSE FOR RESEARCH AND ENGINEERING HBCU/MI PROGRAM
https://basicresearch.defense.gov/Programs/HBCU-MI-Program/

HBCU/MI PROGRAMS OFFERED THROUGH THE U.S. ARMY COMBAT CAPABILITIES DEVELOPMENT COMMAND (CCDC) ARMY RESEARCH LABORATORY (ARL)
https://www.arl.army.mil/careers/students/hbcu-mi/

CCDC’S ARMY RESEARCH OFFICE’S (ARO) HBCU/MI PROGRAM
https://www.arl.army.mil/careers/students/hbcu-mi/

AIR FORCE OFFICE OF SCIENTIFIC RESEARCH (AFOSR) HBCU/MI PROGRAM
https://www.wpafb.af.mil/Welcome/Fact-Sheets/Display/Article/842100/afosr-funding-opportunities-special-programs

U.S. DEPARTMENT OF EDUCATION (DoED) LISTS OF POSTSECONDARY MINORITY-SERVING INSTITUTIONS (MSIs)
https://www2.ed.gov/about/offices/list/ocr/edlite-minorityinst.html
ANTHONY C. SMITH SR.
Director/Program Manager
Department of the Navy (DoN) Historically Black Colleges
Universities and Minority Institutions (HBCU/MI) Program
www.onr.navy.mil/hbcu