UPR external funding success is of utmost importance to strengthen the connection between its investigators/faculty and funding entities who have the potential to sponsor their research and academic endeavors. This publication has been developed in order to summarize funding opportunities and promote the participation of faculty and collaborative research groups in their intent to apply for external funds. Such efforts are aligned with the UPR Strategic Plan 2017-2022: A New Era of Innovation and Transformation for Student Success; Certification 50 (2016-2017) of the Governing Board, December 19, 2016. Strategic Area: Research and Creative Work. Goal 2: Increase Applications for and awards of external funds for research and creative work.

SELECTED FUNDING OPPORTUNITIES

This is a selection of identified funding opportunities for the period ending 3/8/2024 and is in no way all-inclusive of funding opportunities available. Further information has been shared with External Resource Coordinators and Research Coordinators at each UPR campus.

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1. Hispanic-Serving Institutions: Enriching Learning, Programs, and Student Experiences, NSF

Application Deadlines: June 4, 2024

Award Information:
- **IEP Level 1: up to $500,000 for a duration of three years**
- **IEP Level 2: up to $1,000,000 for a duration of five years**
- **Educational Instrumentation (EI) Track: up to $200,000 for a duration of 2 years**
- **Planning Proposals: contact the HIS:ELPSE program director**
- **Workshops and Conferences: contact the HIS:ELPSE program director**

The Hispanic Serving Institution (HSI) Program is supported by the National Science Foundation (NSF) as a cross-divisional effort with multiple funding opportunities that support the nation's colleges that have been designated as Hispanic Serving Institutions. This program is part of a Foundation-wide effort to accelerate improvements in the quality and effectiveness of undergraduate education in all STEM fields including the learning, social, behavioral, and economic sciences. With Congressional support, the NSF uses this program to build capacity at institutions of higher education that typically do not receive high levels of NSF grant funding.

The HSI:ELPSE solicitation supports the two goals shared amongst all current and previous funding opportunities in the NSF HSI Program:
1. Enhance the quality of undergraduate science, technology, engineering, and mathematics (STEM) education at HSIs.
2. Increase the recruitment, retention, and graduation rates of students pursuing associates or baccalaureate degrees in STEM at HSIs.

The HSI:ELPSE solicitation is specifically focused on studying and improving student experiences and outcomes in the following settings:
- STEM courses, particularly for students pursuing STEM degrees.
- Certificate, minor, and/or degree programs.
- Academic departments or divisions.
- Schools and colleges that represent a part of the entire institution (e.g., a School of Engineering or a College of Natural Sciences).

Subject to the specific requirements of each track detailed below, the HSI:ELPSE solicitation welcomes proposals aligned with one or both of the following areas:

- **Courses, Curricula, and Pedagogy:** Efforts that have a direct impact on students' classroom experiences and progression through degree programs. These projects might center on innovations in one or more of the following areas: specific courses; majors, minors or certificate programs; non-majors STEM courses; full- and part-time faculty pedagogy; course-based undergraduate research or internship opportunities; or academic supports within or outside of the classroom.

- **Institutional Structures and Pathways:** Efforts that study and/or improve systems and opportunities that go beyond students' direct experiences in their courses and degree programs. Projects of this type might center on innovations in one or more of the following: 2-year to 4-year transfer pathways; dual-enrollment or dual-degree programs; academic advising; faculty or staff professional development; growth towards being Hispanic-serving; preparation for graduate studies or the STEM workforce; department-, division-, or college-based undergraduate research and internship programs.; Projects with a focus on this theme should make use of disaggregated institutional data to support the need of the project and contextualize the proposed project's aims and activities.

Project Tracks
- **Implementation and Evaluation Projects (IEP) Track** - The track welcomes projects looking to implement, adapt, or study promising practices and also invites theoretically grounded, methodologically rigorous research projects on undergraduate experiences in STEM at HSIs. IEP projects include activities that are anticipated to support research and efforts to improve the HSI undergraduate experience for STEM majors and for non-majors

enrolled in STEM courses.

Proposals can focus on improving student learning and outcomes, broadening participation of historically underrepresented student groups in STEM at HSIs, or other efforts aligned with the HSI:ELPSE solicitation's areas of focus. The IEP track is intended to be a broad opportunity, and encourages the submission of high-risk, high reward approaches with transformative potential.

- **Common Expectations for Level 1 and Level 2 IEP Projects:** There are two funding levels that determine the maximum budget, timeline, and scope for the proposed projects.

  - **IEP Level 1:** Awards at this level will support early-stage or exploratory projects that look to enrich the student experience, improve teaching and learning, broaden participation in undergraduate STEM, or improve student outcomes at HSIs. While IEP Level 1 proposals should be evidence-based as discussed above, they may be more exploratory and would generally be of a smaller scale than IEP Level 2 proposals.

    The core activities of Level 1 projects may be wholly novel or may center on the replication and validation of promising approaches or high impact practices that may be novel at the institution. While STEM education or broadening participation research plans are welcome in Level 1 IEP proposals, they are not required. However, in the absence of a research plan, proposals must describe a plan to generate knowledge through the analysis and broad dissemination of data and outcomes obtained through project evaluation.

  - **IEP Level 2:** should include efforts that are beyond the proof-of-concept stage and have potential to result in sustainable positive outcomes that align with the goals of the HSI program. Level 2 projects have a scale and scope beyond what would typically be expected for IEP Level 1 projects.

    Level 2 projects must include substantial educational research plans intended to generate new knowledge that may improve our understanding of how to build institutional capacity at HSIs, to meet the goals of enhancing the quality of undergraduate student experiences in STEM, and/or improving the recruitment, retention, and graduation rates of students pursuing STEM degrees at HSIs. Research plans should include specific and actionable research questions, be theoretically grounded, and draw from data streams that look beyond those traditional institutional research measures. The HSI program has no methodological preference and welcomes qualitative, quantitative and mixed-methods studies as appropriate given the foci of each proposed study.

  - **Educational Instrumentation (EI) Track:** The goal of the EI Track is to increase access to the computing resources and/or laboratory instrumentation needed to provide high quality undergraduate education in STEM. The EI track welcomes proposals centered on instrumentation to improve educational experiences and outcomes in any STEM discipline represented across NSF's Directorates and Divisions.
    - *Eligibility*: The EI track is open to all HSIs in EPSCoR jurisdictions and to HSI Primarily Undergraduate Institutions (PUIs) in all other (non-EPSCoR) jurisdictions.
    - *Focus*: All proposals to the EI track should be to support instrumentation and/or computing resources used primarily for undergraduate STEM courses.

  - **Planning Proposals:** planning proposals are welcome at any time to develop, organize, and/or strengthen key data, human, and educational resources. PIs must contact a program director on the HSI:ELPSE solicitation to discuss their proposal idea and determine if a planning grant is appropriate. Furthermore, written permission to submit a planning proposal must be obtained from an HSI program director and uploaded at the time of submission. Planning proposals can focus on the development of a future submission to the IEP track or can be centered on institutional efforts to better serve their undergraduate STEM students.

  - **Workshops and Conferences:** Proposals for workshops and conferences addressing topics that contribute to the goals of the HSI Program may be submitted at any time following consultation with an HSI Program Officer. Proposals for conferences that seek to address critical challenges in undergraduate STEM education

at HSIs, including issues related to recruitment, retention, completion, and transfer are particularly encouraged.

Link to Additional Information: https://new.nsf.gov/funding/opportunities/hispanic-serving-institutions-enriching-learning/nsf24-551/solicitation

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2. Agriculture and Food Research Initiative - Sustainable Agricultural Systems, USDA / NIFA

Application Deadline: June 6, 2024
Award Information: up to $10,000,000 for a project period of 60 months

The purpose of AFRI is to invest in research, education, and extension work by awarding grants to solve key problems of local, regional, national, and global importance in sustaining conventional, organic, and urban agricultural systems. The projects supported by AFRI address topics such as farm/ranch production efficiency, profitability and sustainability; bioenergy and bio-based products; forestry; aquaculture; rural communities and entrepreneurship; human nutrition; biotic and abiotic constraints on food production; food safety; reducing food waste and food loss; physical and social sciences; family and consumer sciences and rural human ecology; development of circular economies, and genetic improvement of plants and animals. Through this support, AFRI advances knowledge in both fundamental and applied sciences important to agriculture and forestry. Additionally, AFRI supports work in education and extension activities that deliver science-based knowledge to end users, allowing them to make informed, practical decisions. The AFRI Sustainable Agricultural Systems (SAS) RFA provides funding for integrated research, education, and extension projects.

Food and agricultural systems are under the constraints of a growing global population, natural resource availability, climate change, and complex demands of ensuring food and nutrition security and food safety in a global economy. Addressing these constraints requires integration of research, education, and extension programs using regenerative approaches that increase agricultural and natural resource sustainability. AFRI encourages projects addressing enhancement of sustainability of agricultural systems.

This AFRI RFA will support projects that significantly advance foundational and applied sciences for the following USDA priorities:
1. Addressing climate change via climate smart agriculture and forestry.
2. Advancing racial justice, equity, and opportunity.
3. Creating more and better market opportunities.
4. Tackling food and nutrition insecurity.

Program Description
The purpose of the AFRI Sustainable Agricultural Systems (SAS) program area is to promote a sustainable supply of accessible, healthy, safe, and affordable, food and other agricultural products, while enhancing rural economic development, employment and economic opportunities, and improving the long-term health and well-being of individuals, families, and communities. Sustainability is core to this program. Sustainable Agriculture as defined in 7 U.S.C. 3103 is: "an integrated system of plant and animal production practices having a sitespecific application that will over the long-term: satisfy human food and fiber needs, enhance environmental quality and the natural resource base upon which the agriculture economy depends, make the most efficient use of nonrenewable resources and on-farm resources and integrate, where appropriate, natural biological cycles and controls, sustain the economic viability of farm operations, and enhance the quality of life for farmers and society as a whole." This program uses this definition, and the three pillars of sustainability - economic, environmental, and social considerations as the framework.

The SAS program area will fund projects that significantly advance previously established foundational and applied sciences for the following USDA priority outcomes:

1. **Food and Nutrition Security:** Enhance the contributions of food and agriculture to improve the health of the nation through resilient local and regional food systems, adoption, and application of new or existing technologies, tools, education, and other resources to ensure all Americans have consistent and equitable access to healthy, safe,

affordable foods essential to optional health and well-being.

This goal emphasizes local and regional food systems including applications with strategies to develop shorter food supply chains for nutritious foods that are equitable, culturally appropriate, and compatible with community needs. Underserved communities such as communities of color, lower-income populations, and rural and remote populations suffer the greatest disparities in food and nutrition insecurity. Food insecurity often coexists with diet-related chronic diseases, including heart disease, diabetes, and certain types of cancers. Inequitable impacts of climate change also coexist with food insecurity. Addressing food and nutrition insecurity is interrelated with challenges and opportunities with food production systems and addressing food loss and waste issues in food systems. Projects should be designed to address social determinants of health through integrated research, education, and extension/outreach activities, including 4-H or other forms of positive youth development programs and to address food and nutrition security among underserved populations. The most effective solutions will address the interrelated challenges across both food and nutrition security and climate change and work towards transforming national and global food systems. Projects addressing this goal must develop, implement, or enhance understanding of at least one of the following:

   a. **Local and Regional Food Systems:** Build resilient local and regional food systems that foster and support agricultural innovation that ensures America's agricultural system is safe, equitable, health, affordable, sustainable, and prosperous. Design culturally and contextually appropriate approaches to reduce food loss and waste and food supply chain disruption with an emphasis on mitigating the effects of climate and other disasters on food systems and fostering resilient food systems, especially in disaster-prone areas.

   b. **Nutrition-Sensitive Climate-Smart Agriculture:** Promote productive, profitable, and nutrition-sensitive climate-smart production practices that increase returns on investment for farmers/producers and mitigate economic losses and reduce food loss and waste, particularly among underserved farmers. Promote production of nutrient dense crops known to prevent diet-related chronic diseases while ensuring more sustainable production in terms of soil health, nutrient density, and crop resilience to climate variabilities.

   c. **Nutrition Security and Diet-Related Health Disparities:** Develop innovative approaches to address equitable upstream social determinants of health with an emphasis on fostering connections with sustainable agricultural systems that integrate robust partnerships and efforts led by or with strong representation from underserved communities.

2. **Strengthening the Bioeconomy:** Develop sources of clean energy and high-value biobased products from agricultural and forestry feedstocks to foster economic development and prosperity, with an emphasis toward generating benefits to underserved communities.

Foster economic development and prosperity in rural America by developing and advancing production of clean, renewable, and sustainable energy and biobased products from forests and agriculture. The development and implementation of a sustainable and resilient circular bioeconomy is limited, especially among underserved communities, by access to economically viable technologies, infrastructure susceptibility to climate shocks, and increasing costs for transportation and energy. New or improved production systems need to be developed to create cost competitive and sustainable biobased products and supply chains that strengthen the American rural economy.

Biobased products should be manufactured from agricultural byproducts and coproducts (e.g., underutilized livestock, forest, or fishery byproducts) or emerging purpose-grown crops and have a reduced or mitigative capacity in environmental impact based on life cycle and other environmental analyses. Projects should focus on engaging communities to develop new or improved production and distribution systems that are inclusive of promoting economic equity, lowering environmental impacts, and the development of more effective formal and non-formal education/training methods and programs to strengthen the workforce pipeline for the bioeconomy. Projects supporting this goal must address at least one of the following:

a. **Sustainable Bioenergy and Biobased Products:** Develop new and/or improved approaches for the production and manufacturing of clean energy (particularly sustainable aviation fuels) or sustainable biobased products (e.g., domestically sourced natural rubber, wood/lignocellulosic bioproducts.) Proposals should include a description of the cost savings relative to products currently on the market (including product specifications and pricing) and environmental benefits of the approach (such as greenhouse gas emission reductions, waste management benefits, and/or other relevant benefits).

b. **Resilience and Robustness of Bioeconomies:** Develop innovative approaches that increase the adaptability of bioeconomies to climate shocks (including biological, environmental, and supply chain). Innovations in community-based local and regional collaborations are appropriate for this topic. Funded projects may entail use of modeling or assessment techniques to determine short- and long-term sustainability benchmarks, impacts, and outcomes of new or improved production systems compared to existing energy and bioproduct production systems. Models and analytic tools should be capable of estimating the value and impact of products and byproducts at each point, from manufacture to disposal, in local and regional contexts.

c. **Regional Resource Hub (RRH) Partnerships:** USDA-NIFA is collaborating with the U.S. Department of Energy Clean Fuels and Products Shot™ Regional Resource Hubs to advance development and commercialization of low-carbon bioenergy and biobased products. RRHs support research, development, and deployment of purpose grown energy crops that will contribute to no less than 85% reduction in carbon intensity in biobased products, including sustainable aviation fuels, compared to fossil-based counterparts. SAS projects selected under this focus area will gain access to regional and national models to further advance their individual goals and objectives and will contribute field trial results, including carbon intensity metrics, to the RRH network to serve as a reference for stakeholders across the bioeconomy.

3. **Climate-Smart Agriculture and Forestry (CSAF):** Improve mitigation, adaptation, and resilience of agricultural and forestry production systems to climate change.

Agricultural, rangeland, aquaculture, and forestry systems are increasingly threatened by climate change and extreme weather events while being relied upon to mitigate greenhouse gas emissions and sequester carbon. Climate-smart agriculture and forestry systems must be developed to tackle these challenges. Socially, economically, and environmentally sustainable CSAF must overcome diminishing natural resources, reduce inequities experienced by underserved and overburdened communities, reduce loss of natural habitats and biodiversity, support sustainable agricultural intensification, and meet accelerating demands for food and other agricultural products. Effective CSAF approaches will consider regenerative principles, improvements to climate models and measurements, technological advancements, availability of a skilled workforce, socioeconomic opportunities and barriers to adoption of CSAF systems. Innovations should consider profitability, production, and the sustainable use of the natural resource base. Projects supporting this goal must also develop, implement, or enhance understanding of one or more of the following:

a. **Greenhouse Gas Mitigation:** Reduce greenhouse gas emissions to 50% of current rates by 2030 and achieve net-zero emissions from agriculture and forestry by 2050. Reducing greenhouse gases that have relatively short atmospheric residence times (such as methane), increasing carbon sequestration, and reducing risk of wildfires are important priorities to address.

b. **Markets and Socioeconomics:** Improve market opportunities for CSAF. Opportunities exist to create CSAF supply chains and products, develop carbon and other ecosystem service markets, and reduce food loss and waste. Improving greenhouse gas measurements and climate modeling will underpin efficient markets.

c. **Regionally Appropriate Climate Adaptation and Resilience:** Develop resilient agricultural, rangeland, aquaculture, or forestry systems that can adapt to climate change while considering incremental climate changes and extreme weather events. Enhanced prediction of climate-related stressors; advancing appropriate management, tools, and technologies; and translating climate knowledge for stakeholders are essential for

CSAF systems.

This RFA is soliciting visionary integrated research, extension, and education projects that use transdisciplinary, systems approach to promote the blending of science, technology, and societal considerations to solve challenges to current and future food and agricultural systems.

Agricultural systems are inclusive of local and regional supply chains from production to consumption of food and other agricultural products, and from traditional open-field farms, ranches, and managed forests to controlled production in built environments across the rural-urban continuum. Consideration must be given to how new strategies or other technical interventions may alter existing systems and the future implications of unintended effects. Applicants must demonstrate that the changes resulting from the proposed efforts will enhance the viability of the food and agricultural value chain.

Projects must use a systems approach that apply rapidly advancing science and technologies to ensure the economic, environmental, equitable, and social goals of sustainable agriculture. SAS projects must enhance the availability of a skilled workforce through development and deployment of formal and non-formal learning activities to train the current and next generation of the food and agriculture workforce. This includes training or retraining current and future farmers, workers, students, youth, and scientists who must be equipped to find and implement solutions to global food and agricultural challenges. Educational activities should include broad types of learning and engagement (e.g., hands-on learning, experiential, and other newer methods of teaching and disseminating information, including virtual options, as appropriate), emphasizing development of interpersonal and team skills. Partnering with 4-H and other positive youth development programs and experts/practitioners to achieve project goals, where appropriate, is welcome.

Extension and other outreach activities should produce significant behavioral changes leading to impacts such as sustainable production and consumption practices and improving public health and well-being. Stakeholder communities must be engaged in project activities directly affecting them, (e.g., the design, approach, implementation, and feedback loops). Involvement of underserved communities is highly recommended.

Link to Additional Information: https://www.nifa.usda.gov/grants/funding-opportunities/agriculture-food-research-initiative-sustainable-agricultural-systems

3.   Computer Science for All, NSF

Application Deadline: June 04, 2024
Award Budget:
- **Small RPP proposals: maximum of $300,000 for up to 2 years, plus funds for embedded Research Experiences for Undergraduates supplements**
- **Medium RPP proposals: maximum of $1,000,000 for up to 3 years, plus funds for embedded Research Experiences for Undergraduates supplements**
- **Large RPP proposals: maximum of $2,000,000 for up to 4 years, plus funds for embedded Research Experiences for Undergraduates supplements**
- **Research Strand proposals: maximum of $750,000 for up to 3 years, plus funds for embedded Research Experiences for Undergraduates supplements**

The goal of this program is to provide all U.S. students with the opportunity to participate in computer science (CS) and computational thinking (CT) education in their schools at preK-12 levels. CT refers to the thought processes involved in formulating problems and their solutions in such a way that the solutions can be effectively carried out by an information-processing agent (usually a computer). CS, as used in this solicitation, includes CT but also the broad range of understandings, competencies, and skills needed to apply computation in our digital world. It includes long-standing as well as emerging topics of problem specification and representation; algorithm development; software design, programming, and debugging; the Internet and networking; big data; cybersecurity; artificial intelligence; microelectronics; and application across a wide range of disciplines, including the associated societal impact and ethical considerations. As the lead Federal agency for building the research knowledge base for CS and CT education, NSF aims

to build upon past and ongoing efforts to enable rigorous and engaging CS and CT education in schools across the Nation.

This program supports efforts that aim to provide opportunities for all students to participate in CS and CT learning at the pre-k, elementary, middle, and high school grade levels through research-practice partnerships (RPPs) that connect research to practice through long running and diverse collaborations. The program also supports traditional research that builds knowledge across educational pathways. Proposals are encouraged from teams in early stages of RPP formation, as well as advanced stages of RPP implementation. Proposals will be funded in four "strands" that collectively foster design, implementation at scale, and/or research:

- For the **PreK-8 Strand**, the focus is on designing, developing, and piloting instructional materials that integrate CS and/or CT into preK-8 classrooms.

- For the **High School Strand**, the focus is on preparing and supporting teachers to teach rigorous CS courses.

- For **PreK-12 Pathways Strand**, the focus is on designing pathways that support school districts in developing policies and supports for incorporating CS and/or CT across all grades and potentially the transition into introductory levels at community or four-year institutions of higher education and/or the workforce.

- For the **Research Strand**, the focus is on building strategically instrumental, or "high leverage" knowledge about the learning and teaching of introductory computer science to support key CS and/or CT understandings and abilities for all students.

Proposals in the PreK-8 Strand, High School Strand, and the Pathways Strand must involve RPPs, whereas proposals in the Research Strand are not subject to this requirement. A proposal can be submitted to only one strand, and that strand must be designated in the first line of the Project Summary.

CSforAll RPP strands
RPPs require well-organized teams of researchers, PreK-12 practitioners (teachers, administrators, and counselors), and potentially other community, foundation, policy, and industry partners. There are many ways RPP teams can work together; however, central to the partnership is shared participation in rigorous research about problems of practice by all team members. Members of these teams work together to iteratively define and refine common goals, research questions, metrics, and implementations. RPPs vary across several dimensions, such as their goals, the composition of participating partners, and the approaches to and uses of research. However, they share a set of principles 3:

- They are long-term collaborations;
- They work toward educational improvement or equitable transformation;
- They feature engagement of research with practice as a leading activity; and
- They are intentionally organized to bring together a diversity of expertise.

RPPs aim to strengthen the capacity of an organization to reliably produce valued CS and CT education outcomes for diverse groups of students. The focus is on building efforts that can succeed when implemented at scale. RPPs involve a range of stakeholders in different stages of inquiry, and research findings from the field are translated into practical use, just as practical challenges can motivate articulation of solutions and subsequent sharing of those with the field.

1. **PreK-8 Strand.** RPPs proposed in this strand may address a wide range of topics on the teaching and learning of CS and CT in PreK-8 grades, including but not limited to:

   - development and study of prototype instructional materials for PreK-8 both for stand-alone CS and CT courses or modules as well as teaching and testing of CS and CT concepts with other content;
   - development of tools and models to support underrepresented students, including girls, in prekindergarten through elementary school in computer science education;

- creation of developmentally appropriate learning progressions that underlie the design of instructional materials;
- design of classroom-based assessments to inform teaching and learning along the way;
- development of professional development (PD) and teacher support — including face-to-face and online learning communities, coaching, and mentoring — as needed for piloting of instructional materials, along with research about their use and effectiveness;
- what and how teachers learn from professional development; and
- relationships between professional development activities and subsequent enactments of instruction.

2. **High School Strand.** As schools attempt to respond to the increasing demand for CS and CT in their curricula, they are often faced with a critical shortage of teachers. Proposals in this strand should address key issues in the preparation, professional development (PD), and ongoing support of teachers of high school CS, recognizing the need for quickly scaling effective efforts to reach teachers, many of whom have had little or no formal CS preparation. Additional issues include but are not limited to:

- recruitment of teachers;
- differential PD based on prior experiences;
- creating robust PD materials for teachers and facilitators;
- establishing online and hybrid PD approaches;
- assessing the effectiveness of PD models with respect to content knowledge, pedagogy, classroom equity, and student outcomes;
- adapting and scaling PD models for greater impact, especially with respect to inclusion and equity;
- establishing certification programs and pre-service paths for teacher PD;
- undertaking studies to inform state or local policy about CS requirements; or
- designing, piloting and assessing scalable mechanisms for ongoing support of classroom teachers.

3. **PreK-12 Pathways Strand.** Many districts have begun to make progress at the elementary, middle, and high school levels but need to coordinate the overall efforts, particularly to address articulation across the years of schooling. RPPs proposed in this strand may address the creation of pathways, including but not limited to:

- research and development of course sequences and alignment tools for students for PreK-12 Pathways at the school or district level;
- research and development of articulation from preK-12 Pathways to community or four-year colleges or universities in preparation for entry into CS or computationally intensive majors; or
- design and development of school, district, and/or state systems to assess and track student progress on pathways.

CSforAll Research Strand - The aim is to support the development of evidence-based knowledge that illuminates how the teaching and learning of computing best occurs and how it can be supported most effectively for diverse students under different circumstances. Like the above three RPP strands, the Research Strand prioritizes a clear relationship between research and practice. It also aims to enrich the knowledge base governing how students build on what and how they learn computing throughout their education pathway. Strong Research Strand proposals will support the participation of the full spectrum of diverse computing talent, including groups that have been traditionally underrepresented or under-served in computing relative to their participation in preK-14 education, with the research findings potentially contributing to the preparation of the future CS workforce.

CSforAll proposal size classes
The proposal size class should be specified in the first line of the Project Summary. Proposals in the three RPP strands may be submitted in the following size classes:

- **Small RPP proposals** - are designed to support initial steps in building a strong and well-integrated RPP team that

could successfully compete for a Medium or Large proposal. These initial steps could include: establishing partnerships, exploratory research, and/or pilot implementation programs.

- **Medium RPP proposals** - are designed to support promising approaches and feasibility studies by a well-defined RPP team.

- **Large RPP proposals** - are designed to support the scaling of an evidence-based approach and implementation studies by an established RPP team that has demonstrated sustainability.

- **Research Strand proposals** - are designed to support research projects that will contribute to the development of an evidence-informed knowledge base that illuminates how learning in the domain of computer science best occurs and how it can be supported most effectively for diverse students under different circumstances.

   Link to Additional Information: https://new.nsf.gov/funding/opportunities/computer-science-all-csforall-research-rpps/nsf24-555/solicitation

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4.   Building Interdisciplinary Research Careers in Women's Health (BIRCWH) (K-12 Clinical Trial Optional), NIH

Application Deadline: May 30, 2024
Estimated Award Amounts: up to $840,000 in direct cost per year for a maximum project period of five years

The overall goal of the NIH Research Career Development programs is to help ensure that a diverse pool of highly trained scientists is available in appropriate scientific disciplines to address the Nation's biomedical, behavioral, and clinical research needs. More information about Career programs may be found at the NIH Extramural Training Mechanisms website.

The proposed institutional research career development program may complement other, ongoing research training and career development programs at the applicant institution, but the proposed career development experiences must be distinct from those career development programs currently receiving Federal support.

Purpose
Each program will support mentoring the research career development of junior faculty members, known as BIRCWH Scholars, who have recently completed clinical training or postdoctoral fellowships, and who will be engaged in interdisciplinary basic, translational, behavioral, clinical, and/or health services research relevant to the health of women and, where appropriate, the use of both sexes to better understand the influence of sex as a biological variable on health and disease.

Program Objectives
The objectives of this BIRCWH initiative are to increase the number and skills of investigators through a mentored research and career development experience leading to an independent scientific career that will benefit the health of women; advance research on sex/gender influences on health; and encourage interdisciplinary research methodology. This BIRCWH NOFO will provide opportunities for an interdisciplinary, mentored career development experience that would otherwise not be available to facilitate the transition to research independence for junior faculty researchers who are conducting interdisciplinary research relevant to the health of women.

The BIRCWH Program is built around three pillars: interdisciplinary research, mentoring, and career development. Interdisciplinary research, as defined by the National Academy of Sciences (NAS), is a mode of research that integrates information, data, techniques, tools, perspectives, concepts, and/or theories from two or more disciplines or bodies of specialized knowledge to advance fundamental understanding, or to solve problems whose solutions are beyond the scope of a single discipline or area of research practice. As such, interdisciplinary science teams work to advance fundamental understanding and solve problems that those from a single discipline could not.

Interdisciplinary mentoring teams are essential to the BIRCWH Program, and as such, an inter-professional, team-based approach for mentoring BIRCWH Scholars is expected. These teams should include mentors from diverse disciplines to carry out interdisciplinary projects. Team members may include individuals from medical, dentistry, pharmacy, nursing, biotechnology, data science, social sciences, anthropology, genetics, and other disciplines representing different perspectives and areas of expertise. These teams come together to collaborate as a unit, with the common goal of supporting a BIRCWH Scholar in the transition from trainee to independent researcher. In this NOFO, the interdisciplinary team approach is applied to the study of the health of women across the lifespan, bridging basic and clinical science and incorporating new models of collaboration and institutional support. Proposed Programs must ensure the integration of interdisciplinary mentoring teams.

Link to Additional Information: https://grants.nih.gov/grants/guide/rfa-files/RFA-OD-24-013.html

5.   Research and Development, NEH

Application Deadline:
- **Optional Draft: April 9, 2024**
- **Full Proposal: May 21, 2024**

Funding Range:
- **Tier 1: up to $100,000 for a period of performance of up to two years**
- **Tier 2: up to $350,000 for a period of performance of up to three years**

The Research and Development program supports projects that address major challenges in preserving or providing access to humanities collections and resources. Projects may seek better ways to preserve materials of critical importance to cultural heritage and to organize, search, discover, and use such materials.

The program supports projects at all stages of development, from early planning and standalone studies to advanced implementation. The program benefits the cultural heritage community by supporting work on the entire range of humanities collection types, including moving image and sound recordings, archaeological artifacts, born-digital and time-based media, rare books and manuscripts, archival records, material culture, and art.

Projects may focus on, but are not limited to, the following:

- **Furthering theory and practice in core heritage collections work** such as appraisal, arrangement, description, cataloging, knowledge organization, and digital curation.

- **Preserving audiovisual and digital heritage collections**, especially those in formats most at risk of obsolescence.

- **Applying artificial intelligence** to collections-based activities by heritage institutions such as libraries, museums, and archives.

- **Conserving the material past** by supporting scientific work to improve the conservation treatment and preventive care of cultural heritage materials.

- **Protecting imperiled cultural heritage** affected by armed conflict, war, looting, natural disasters, economic development, or tourism.

- **Stewarding collections by and with underrepresented communities**, including minoritized and Indigenous communities and persons with disabilities.

- **Responding to the impact of climate change** on the sustainability and resilience of heritage collections, institutions, or communities.

Given the complexities of preserving and providing access to humanities collections, NEH recognizes the importance of forming interdisciplinary teams with expertise in the humanities, preservation, information and computer science, and the natural sciences. The exact mix of specialists will depend on the nature of your project. Your team may include a project co-director, a consultant, an advisory committee, or other experts who contribute to a well-defined humanities perspective, frame your objectives, and guide the project to successful completion.

Funding categories
- **Tier I: Planning, Basic Research, or Prototyping**
  - Planning and preliminary work for large-scale research and development projects.
  - Discrete research projects such as case studies or laboratory experiments. While such projects may or may not involve planning or preliminary research for a larger project, they must address research issues or problems in the cultural heritage field.
  - Prototype or modest updates to established or emerging standards, methodologies, tools and equipment, or workflows.

- **Tier II: Advanced Implementation**
  - Development of new or existent standards, protocols, practices, methodologies, or workflows for preserving and creating access to humanities collections.
  - Applied research addressing preservation and access issues concerning humanities collections.
  - Topic or area study in heritage preservation and access. NEH encourages you to involve multi-institutional and community stakeholders working to achieve substantial national or international impact via any combination of convenings, data collection, and analysis.

Tier II applicants must demonstrate evidence of prior planning and preliminary research. Support for that planning might have come from NEH, other federal or foundation awards, or your institution's own funds.

Program Outcomes and Outputs
Projects may produce any combination of data, publications, guidance, software, tools, equipment, or other resources in service of advancing knowledge in cultural heritage preservation and access.

The outputs of a successful Tier I award may include, but are not limited to:

- Documentation, such as an agenda or work plan, preparing for a large-scale research and development project.
- Draft of a standard, practice, or workflow.
- Published quantitative or qualitative datasets from a discrete case study or laboratory experiment.
- Prototypes or modest modifications to new or existing open-source tools, equipment, software, databases, or metadata schema.
- Scholarly publication(s).

The outputs of a successful Tier II award may include but are not limited to:

- Development of new or existing standards, protocols, methodologies, or workflows (may include publication of supporting quantitative and/or qualitative datasets).
- Significant development or modifications to new or existent open-source tools, equipment, software, databases, or metadata schema plus relevant documentation for use by cultural heritage practitioners.
- Report, proceedings, guidelines, or other resources derived from area or topic study.
- Scholarly publication(s).

Areas of Interest
1. American Tapestry: Weaving Together Past, Present, and Future

2. Humanities Perspectives on Artificial Intelligence

Link to Additional Information: https://www.neh.gov/grants/preservation/research-and-development

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6. Developing Digital Therapeutics for Substance Use Disorders (UG3/UH3 Clinical Trial optional), NIH

Application Deadlines:
- **Letter of Intent: 30 days prior to the application due date**
- **Full Proposal: March 26, 2024 / July 17, 2024**

Award Amount: up to $500,000 direct costs for each year of the UG3 phase but are not limited for the UH3 phase. However, budgets need to reflect the actual needs of the proposed project

The goal is to support research into the development and testing of DTx for stand-alone treatments or DTx integrated with FDA-approved SUD treatments. Stand-alone DTx treatments may, for example, deliver behavioral interventions that are currently accessed via face-to-face interactions with a therapist. The treatment may be completely delivered by the DTx, or it may include reduced numbers of face-to-face interactions with a therapist. However, it is intended that no other intervention is included in a stand-alone treatment. Approaches integrated with FDA-approved SUD treatments would support and enhance the effect of the treatments. Indications targeted by the interventions could include prevention of the initiation of SUDs, increasing medication adherence, enhancing treatment retention, treatment of withdrawal, initiation of abstinence, or reduction of relapse.

Sham comparators or validated active comparators should be included when appropriate. If applicable, investigators should design studies to evaluate potential sex/gender differences. Methods to evaluate subjects' compliance with the study treatments should be included when possible. Monitoring adherence to the treatment would be especially appropriate for DTx that are integrated with FDA-approved SUD interventions.

UG3/UH3 Phases of Research
This notice of funding opportunity (NOFO) uses a phased innovation approach (UG3/UH3). The UG3 phase provides support for up to two years with specific milestones and go/no-go rules, determined by the investigator, to be accomplished by the end of the UG3 phase. The milestones and go/no-go rules must be based on quantifiable measures and designed around what needs to be achieved to reach the next stage of development.

Applicants must plan for both the UG3 and UH3 phase. At the completion of the UG3, the grant will undergo administrative review by NIDA staff to determine if the milestones are successfully met. Following review, the application may then be awarded up to three additional years of support (UH3 phase).

UG3 Phase
The focus of the UG3 phase should be on moving the intervention forward to the next stage of design and testing, providing milestones relevant to the FDA authorization pathway. The specific activities and milestones appropriate for the UG3 phase will depend on the type of intervention under study and its stage of development. Grant applications should provide clear, measurable milestones and go/no-go rules to be accomplished at the end of the UG3.

Activities for the UG3 may include:

- Development of a finalized version of the DTx and validation in the study population.
- Evidence that the intervention effects efficacy related endpoints, such as craving, dependence, days of abstinence, etc.
- Evidence that the intervention effects behavioral endpoints as they relate to SUD, such as measures of working memory, impulsivity, risk-taking propensity, distress tolerance, self-regulation, stress reactivity, etc.
- Evidence that an adequate dose range/treatment duration for the DTx intervention(s) can be applied with acceptable safety, tolerability, adherence, etc.

- Evidence that when integrated with an FDA-approved treatment, there is enhanced adherence, retention, efficacy or effects on other measures relevant to the approved treatment.
- Completion of a proof-of-concept, feasibility clinical trial.
- Q-submission to obtain FDA feedback on the regulatory pathway.
- Completion of IDE-enabling studies.
- Filing an IDE.
- Approval of an IDE or confirmation that an IDE is not required.

UH3 Phase
Funding for the UH3 phase is contingent on successfully meeting the milestones in the UG3 phase. The UH3 phase supports the next step in the development of the intervention and progression towards FDA authorization. Applicants are expected to describe the entry and exit points of the proposed research in the development continuum. The application must provide quantifiable milestones to determine success of the UH3.

Activities for the UH3 are contingent upon the milestones defined and accomplished in the UG3 and availability of funds.

Investigators are strongly encouraged to reach out to the appropriate FDA Center for Devices and Radiological Health (CDRH) office via the Pre-Submission process to discuss the proposed development pathway and clinical validation data requirements.

Link to Additional Information: https://grants.nih.gov/grants/guide/pa-files/PAR-24-064.html

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7.   Institutional Translational Research Training Program (T32 - Clinical Trial Not Allowed), NIH

Application Deadline: May 25, 2024
Award Budget: budgets are not limited, but need to reflect the actual needs of the proposed project

The purpose of the Ruth L. Kirschstein National Research Service Award (NRSA) Institutional Research Training Grant (T32) program is to develop and/or enhance research training opportunities for individuals interested in careers in biomedical, behavioral or social sciences, and clinical research, in health services research, or in any other discipline relevant to the NIH mission.

Each proposed program should provide high-quality research training, and mentored research experiences, and are expected to help trainees develop:

- A strong foundation in scientific reasoning, rigorous and reproducible research design, experimental methods, analytic techniques, including quantitative/computational approaches, and data gathering, storing, analysis, interpretation and sharing appropriate for the proposed research area.
- Their individual development plans to identify areas of strengths and areas of career and personal growth with the ability to identify and engage mentors.
- Skills in engaging in their chosen area of science including networking, presentation and publication skills and opportunities to interact with members of the broader scientific community at appropriate scientific meetings and workshops.
- The competencies needed to advance to independent careers in their chosen field.
- The ability to think critically, independently, and to develop important research questions to initiate and conduct research and approaches that push forward their areas of study.
- An understanding of the relationship of their research training to health, diseases, and disorders.
- A commitment to approaching and conducting research responsibly and with integrity.
- The competencies to work effectively with colleagues from a variety of backgrounds and scientific disciplines to contribute to inclusive and supportive scientific research environments.
- The knowledge, professional skills, and experiences required to identify and transition into careers that sustain biomedical research in areas that are relevant to the NIH mission.

The proposed institutional research training program may complement other ongoing research training and career development programs at the applicant institution but must be clearly distinct from related programs currently receiving Federal support.

Program Objectives

The purpose of the Institutional Translational Research Training Program is to support comprehensive training within an environment rich in translational research in which trainees will conduct basic, disease-related studies with an understanding of the requirements for translating discoveries into viable therapies. These programs should prepare advanced graduate students, postdoctoral fellows and/or fellowship-stage clinicians to become successful scientists equipped to pursue neuroscience research that is informed by translational considerations and principles.

Program Considerations

Training programs responsive to this funding opportunity should be designed to increase the depth and breadth of trainee expertise within a thematic area. Programs should consist of an integrated set of activities that will both unify a cohort of trainees and expand their expertise beyond what would occur in the absence of the program. For training grants supported under this funding opportunity, a well-developed program:

1) has a programmatic purpose and a scientific theme;
2) provides activities created to address that purpose that go beyond the standard activities (e.g. journal club, departmental seminars) associated with research career development;
3) will have programmatic activities that bring together faculty and trainees with a broad spectrum of expertise, the integration of which has the potential to stimulate innovative ideas and solutions to scientific problems.

The fundamental benefit of an institutional, T32-funded training program is to create a rich, theme-driven environment that stimulates innovation, drives trainee focus on the highest standards of scientific rigor, and provides multiple opportunities for practice in scientific communication. Thus, in most cases, the creation of a T32-funded training program should benefit trainees who are not directly supported financially by the grant as well as those who are.

Programs should create novel and/or expanded research training experiences and activities; they are not intended to simply support trainees to conduct research. Education in career skills (e.g. grant-writing, oral presentation) although a critical component of all programs, is not sufficient to constitute a T32-funded training program. Moreover, the activities that constitute the program should be specifically designed to achieve the stated thematic purpose of the training program, and not simply be cobbled together from existing activities that the institution or department offers.

Training PDs/PIs are encouraged to develop institutional training programs that will expose trainees to a diversity of scientific approaches, systems for study and tools and technologies. The training provided should enhance the trainees' ability to conceptualize and think through research problems with increasing independence. Moreover, programs should foster a culture in which trainees draw from a broad knowledge obtained from both neuroscience and other disciplines to address their research questions.

Programs may support predoctoral students, PhD postdoctoral fellows, fellowship-stage clinicians, or any combination of trainees from these three groups. For institutions that also have MSTP programs and intend to support MD/PhD students with this funding opportunity, the PD/PI should ensure that the majority of trainees supported by the program are those seeking a PhD rather than an MD/PhD.

Training grants that will support both predoctoral students and postdoctoral fellows should have a single program in which both groups of trainees participate and interact. The program may include shared and different activities, but they must occur in the context of an integrated program in which both predocs and postdocs benefit from the interaction, programmatic activities and collaborative possibilities that the program creates.

Institutional research training grants must be used to support a program of full-time research training. Within the full-time

training period, research trainees who are also training as clinicians must devote their time to the proposed research training and must confine clinical duties to those that are an integral part of the research training goals. The program may not be used to support medical training leading to the MD, DDS, or other clinical, health-professional training. Similarly, trainees may not accept NRSA support for clinical training that is part of residency training leading to clinical certification in a medical or dental specialty or subspecialty. It is permissible and encouraged, however, for clinicians to engage in NRSA-supported, full-time postdoctoral research training even when that experience is creditable toward certification by a clinical specialty or subspecialty board.

Link to Additional Information: https://grants.nih.gov/grants/guide/pa-files/PAR-24-108.html

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8. **Stewardship Science Academic Alliances Program, National Nuclear Security Administration / Dept. of Energy**

Application Deadlines:
- **Letter of Intent: April 11, 2024**
- **Full Proposal: June 20, 2024**

Anticipated Funding Amount: up to $300,000 per year for a period of performance of three years

The Department of Energy's (DOE), National Nuclear Security Administration's (NNSA) Office of Defense Programs, directs research and development activities to maintain the safety, security, and effectiveness of the nation's nuclear weapons stockpile. This nuclear deterrent remains a vital part of our national security infrastructure. It maintains strategic stability, deters potential adversaries, and reassures our allies and partners of our security commitments. Since 1992, the United States has observed the moratorium on underground nuclear testing while significantly decreasing the size of its nuclear arsenal. National Policy required NNSA and its weapons laboratories to institute the science-based Stockpile Stewardship Program (SSP) to ensure the safety, security, and effectiveness of the stockpile, while allowing the country to pursue a variety of nonproliferation and disarmament goals. The SSP combines sophisticated experiments, highly accurate physics modeling, and improved computational power to simulate and predict nuclear weapon performance over a wide range of conditions and scenarios.

The Office of Defense Programs announce their interest in receiving applications for new or renewal financial assistance awards for research grants in the SSAA Program. Researchers seeking renewals of their current SSAA grant should apply to this NOFO. The research areas of interest in the SSAA Program for this announcement are properties of materials under extreme conditions and material processing, low energy nuclear science, and radiochemistry.

The objectives of the SSAA Program are to:

- Support the U.S. scientific and engineering community by funding basic research activities at universities that are of relevance to stockpile stewardship goals.

- Provide opportunities for intellectual challenge and collaboration by promoting scientific interactions between the academic community and scientists at the DOE/NNSA National Laboratories; and

- Develop and maintain a long-term recruiting pathway supporting the DOE/NNSA laboratories by training and educating the next generation of scientists in fundamental research of relevance to stockpile stewardship goals, increasing the visibility of the DOE/NNSA scientific activities to the U.S. academic communities.

The DOE/NNSA will consider applications for university-led research which can address one or more of the fundamental areas of physical sciences and engineering outlined below. Proposals should have an appropriate balance between advancing theory and understanding, simulation, and experimental efforts, and be of relevance to the NNSA Defense Program's stockpile stewardship mission. Proposals that advance theory and physical modeling should have a strong, demonstrable connection to experimental efforts.

1. **Topic Research Area # 1: Properties of Materials under Extreme Conditions and Material Processing** - Research proposals are solicited in the area of fundamental material properties under conditions of material processing and material response under extreme conditions. The research in materials under extreme environments and conditions of processing is fundamentally a multi-disciplinary subject, incorporating physics (e.g., condensed matter, shock), chemistry, materials science, and numerous engineering disciplines.

   Extreme conditions include material response when subjected to one or more of the following: high-pressure (>1GPa), high-temperature, or high loading rate (>104 per second). The breadth of this topical research area includes, but is not limited to:

   - Material Properties under Extreme Conditions
   - Energetic Materials
   - Advanced Manufacturing and Processing
   - Novel Characterization, Diagnostics, and Algorithms
   - Data Science / Machine Learning

2. **Topic Research Area # 2: Low Energy Nuclear Science** - Research proposals are solicited in the area of low energy nuclear science. Measurement and theory development should be done in a manner to include focus on the systematic errors in the process. The breadth of this topical area includes, but is not limited to:

   - Investigations, including nuclear theory, differential, and/or integral measurements, leading to greater accuracy in the nuclear data of stable and unstable nuclei and corresponding reaction rates for neutron, gamma, and charged particle-induced reactions.

   - Development of advanced simulations and measurement techniques leading to improved radiation and particle detection methods, in terms of energy, temporal, and spatial resolution.

   - Physics of the fission process, including measurements or theory to understand fission fragment yields and energies, the multiplicity and distributions of the prompt neutrons and gammas, and the subsequent emissions from the fission fragment products including correlations in energy, multiplicity and direction among the emitted particles.

   - Development of advanced nuclear physics experimental diagnostic methods relevant to proton, x-ray, or other radiographic techniques, or to cross section and reaction rate measurements involving unstable and radioactive nuclei.

   - Physics of neutron scattering processes, including measurements or theory to understand the energy and angular dependence of elastic and inelastic reactions.

3. **Topic Research Area # 3: Radiochemistry -** Research proposals are solicited in the area of radiochemistry with an emphasis on studies of the heavier elements and the actinides. The breadth of this topical area includes, but is not limited to:

   - Improvements in isotope production and harvesting methods, chemical separation techniques, and coordination chemistry of actinides and fission products.

   - Investigations which particularly address systematic uncertainties while leading to greater accuracy in neutron- and particle- induced cross sections of the actinides.

   - Production procedures and techniques to manufacture pure targets, especially short-lived nuclei including americium, for use in nuclear science measurements, including new methods and procedures for harvesting

rare isotopes at radioactive ion beam facilities.

- Environmental chemistry of plutonium and other actinides and development of advanced radio-analytical methods to measure actinide elements in environmental samples that improve the knowledge of the behavior of actinides in relevant environments and scenarios.

- Development of novel detector systems to improve spectral measurement sensitivity and/or new chemistry procedures to process irradiated targets to prepare them for precision measurements.

Students are encouraged to take advantage of opportunities to spend time at the DOE/NNSA National Laboratories, participate in on-site internships, engage with National Laboratory scientists, and participate in symposia.

Link to Additional Information: https://www.grants.gov/search-results-detail/352722

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9. Educational Technology, Media, and Materials for Individuals With Disabilities Program— Stepping-Up Technology Implementation, Dept. of Education

Application Deadlines: April 30, 2024
Anticipated Funding Amount: up to $375,000 per year for a project period of up to 60 months

The purpose of the Educational Technology, Media, and Materials for Individuals with Disabilities Program (ETechM2 Program) is to improve results for children with disabilities by (1) promoting the development, demonstration, and use of technology; (2)supporting educational activities designed to be of educational value in the classroom for children with disabilities; (3) providing support for captioning and video description that is appropriate for use in the classroom; and (4) providing accessible educational materials to children with disabilities in a timely manner.

This competition includes one absolute priority and one competitive preference priority.

- **Absolute Priority:** Use of Artificial Intelligence (AI) to Meet Individual Needs of Students with Disabilities Through Learning and Assessment.

- **Priority:** The purpose of this priority is to fund four cooperative agreements to establish and operate projects that achieve, at a minimum, the following expected outcomes:

  a) Improved student outcomes using an evidence-based technology-based tool or approach3that integrates AI.
  b) Improved educator4use and knowledge of an evidence-based technology-based tool or approach using AI to deliver effective instruction to students with disabilities.
  c) Improved educator collaboration and professional learning opportunities focusing on improving outcomes for student with disabilities using an evidence-based technology-based tool or approach using AI.
  d) Improved educator and family engagement regarding the use of an evidence-based technology-based tool or approach using AI to support student learning.
  e) Sustained use of the evidence- based technology-based tool or approach using AI by aligning its use with existing instructional priorities and initiatives.

  To be considered for funding under this priority, in the application, applicants must describe the—
  a) Evidence-based technology-based tool or approach that is ready to use at the time of the application submission. If the AI component is not yet completed, describe how this will be integrated within the first year and how it will enhance the current developed technology-based tool or approach.
  b) Outcomes of students with disabilities that will be improved by implementing the technology-based tool or approach using AI.
  c) Approach to increase educators' use and knowledge of the technology- based tool or approach using AI to improve the outcomes of students with disabilities in an instructional setting.

d) Fully accessible products and resources that will help educators and families to effectively use and implement the technology-based tool or approach using AI.

- **Competitive Preference Priority:** Applications from New Potential Grantees (0 or 3 points).
  a) Under this priority, an applicant must demonstrate that the applicant has not had an active discretionary grant under the 84.327S program from which it seeks funds, including through membership in a group application submitted in accordance with 34 CFR 75.127–75.129, in the five years before the deadline date for submission of applications under the program.
  b) For the purpose of this priority, a grant or contract is active until the end of the grant's or contract's project or funding period, including any extensions of those periods that extend the grantee's or contractor's authority to obligate funds.

Link to Additional Information: https://www.grants.gov/search-results-detail/352667

10. Preservation and Access Education and Training, NEH

Application Deadlines:
- **Optional Draft: April 9, 2024**
- **Full Proposal: May 21, 2024**

Anticipated Funding Amount: up to $350,000 for a project period of up to three years

This program supports projects that develop and implement educational programs for professionals who preserve and provide access to humanities collections. Such materials include but are not limited to paper-based, photographic, archaeological, ethnographic, artistic, audiovisual, digitized, and born-digital collections. Advancing long-term access to these materials for scholars, students, and the public requires skilled professionals from varied backgrounds and communities working in organizations large and small.

NEH makes awards in this program to organizations that offer national, regional, or statewide education and training programs for current or emerging professionals. Programs may be at any stage, from early curriculum development to advanced implementation, and projects may include partnerships with academic or non-academic institutions.

Project activities must support one or more of the following programmatic areas:

- field services, networks, or consortia that offer training and educational resources and services to professionals.
- continuing education opportunities that provide professionals with extended or specialized training in new or current preservation and access topics.
- student and early career programs focused on building skills in preservation and access for cultural heritage collections. Programs may occur at either academic or nonacademic institutions.

Preservation and Access Education and Training applicants are encouraged to address one or more of the following areas of special interest:

- **Audiovisual and Digital Heritage:** Activities that teach skills meant to address the preservation or access challenges faced by materials at risk of obsolescence.

- **Community Resilience:** Activities that enhance the abilities of communities to collect, protect, and share their heritage in the face of existential threats such as climate change.

- **Emergency Preparedness:** Activities that prepare professionals—particularly in areas of the U.S. and its jurisdictions at high risk for sea level rise, extreme weather, flooding, wildfires, or other natural disaster—to mitigate potential hazards and respond to and recover from disasters.

- **Emerging Practices:** Activities that teach new or recently updated preservation or access-related standards, methodologies, tools and equipment, or workflows.

- **Environmental Sustainability:** Activities that teach techniques that limit collections stewards' impact on the environment.

- **Smaller Organizations:** Activities that equip staff from smaller libraries, museums, archives, and historical and cultural organizations with the fundamental skills needed to protect and provide access to their collections.

- **Stewarding Collection by and with Under-represented Communities:** Activities that reach, encourage, or prioritize participation from communities underrepresented in the preservation and access field, as well as activities that teach culturally appropriate, equitable, inclusive, and community-engaged practices for underserved collections.

The outputs of a successful Preservation and Access Education and Training award may include, but are not limited to:

- **Curricula, either new or revised**, for academic or non-academic programs.

- **Educational opportunities designed as placements or hired positions** such as residencies, apprenticeships, internships, and mentorships. Hired positions must use fair hiring practices and ensure that compensation and benefits are appropriate and mindful of the cost-of-living in the location where the position is offered.

- **Educational programs, series, and sessions** such as webinars, workshops, seminars, classes, speaker series, and other online and in-person trainings.

- **Field services** such as assessments, consultations, or on-demand assistance.

- **Financial support for students and participants**, including stipends and travel costs but not tuition remission. You may discount or waive fees for continuing education, field services, networks, or consortia programs.

- **Networks and consortia**, which provide opportunities for sharing knowledge and resources.

- **Open educational resources** such as handbooks, websites, leaflets, and other publications shared with the field.

   Link to Additional Information: https://www.neh.gov/grants/preservation/preservation-and-access-education-and-training

11.   Artificial Intelligence, Formal Methods, and Mathematical Reasoning, NSF

Application Deadline: June 3, 2024
Award Amount: from $500k to $1.2M total for up to 3 years

The NSF Directorates for Mathematical and Physical Sciences (MPS) and Computer and Information Science and Engineering (CISE) will jointly sponsor new research projects at the interface of artificial intelligence, formal methods, and interactive theorem provers to guide and enhance research in the mathematical sciences, formal methods, and AI.

The aim of the Artificial Intelligence, Formal Methods, and Mathematical Reasoning program is to support research at the interface of AI, computer science, mathematics and statistics that assists and accelerates both mathematical discovery as well as discovery in related disciplines.

Successful projects should demonstrate the potential to advance both the mathematical sciences as well as computational models and methods used to attain these advancements. The advancements may include, but are not limited to:
- advancing AI for mathematical conjecture, proof, verification

- advancing interactive theorem provers for mathematical proof and verification, software/hardware verification, and related applications,
- developing training data for AI algorithms for mathematical reasoning, both deterministic and under uncertainty, and novel approaches for infusing logic, mathematical reasoning, and compositionality into AI.

Proposals should identify the challenges to be addressed and the technical approaches to be taken to address these challenges and should highlight how the complementary expertise of the team provides a unique opportunity to make progress.

AIMing proposals must involve meaningful collaborations between researchers in the mathematical sciences with researchers in computational science. Each project is expected to clearly demonstrate substantial collaborative contributions across disciplines. Successful projects are expected to have a cohesive set of goals and a convincing implementation plan. Training through the research involvement of students, and/or postdoctoral associates from across this multi-disciplinary spectrum is an asset.

This program welcomes the submission of proposals that include the participation as e.g., PI, co-PI, senior/key personnel, postdoctoral scholars, graduate or undergraduate students, or other trainees from the full spectrum of diverse talent in STEM, including members of historically under-represented or under-served populations. It also includes diverse institutions including Minority-Serving Institutions (MSIs), Primarily Undergraduate Institutions (PUIs), and two-year colleges, and major research institutions. Proposals from EPSCoR (Established Program to Stimulate Competitive Research) jurisdictions are especially encouraged.

Link to Additional Information: https://new.nsf.gov/funding/opportunities/artificial-intelligence-formal-methods/nsf24-554/solicitation

12. Improving Undergraduate STEM Education: Computing in Undergraduate Education (IUSE:CUE), NSF

Application Deadline: May 30, 2024
Award Information:
- **Transformation: up to $2 million for a maximum duration of five years**
- **Pathways: up to $2 million for a maximum duration of five years**
- **Mobilizing: up to $1 million for a maximum duration of 18 months**

With this solicitation, IUSE: CUE invites proposals for partnerships to re-envision how to teach computing effectively in a scalable manner focusing on those undergraduate students from groups underserved by traditional computing courses and careers.

Proposals will be funded across three tracks that focus on evidence-based transformative efforts to modernize computing courses and accelerate student success in the knowledge, skills, and dispositions of current and emerging industries, and/or explore effective pathways to computing degrees and careers that involve two-year colleges and industry partnerships.

- The **Transformation** track focuses on addressing one or more key challenges in transforming undergraduate computing education through innovative programs. Transformation proposals should focus on one or more key challenges to re-envision undergraduate computing education. Specific challenges include but are not limited to:

  o **The intersection of computing and other disciplines** - This challenge seeks innovative approaches to address the growing demand being placed on CISE departments across all types of institutions of higher education.

  o **Undergraduate computing courses for 2025 and beyond** - This challenge seeks innovative ways to update

computing pathways to better provide students with the fundamental skills and understandings for the ever-changing landscape of computing careers.

- o **Holistic support toward computing degrees and certifications** - This challenge seeks innovative strategies that support students in their path to computing careers, to include increasing access to computing education for those traditionally underrepresented in computing.

- o **Effective, inclusive, and equitable online teaching for computing** - This challenge seeks new and innovative ways to promote inclusive online teaching and learning for computing undergraduate education.

Teams are not expected to address all parts of computing education but rather to make a substantial regional or national impact on some aspects of computing pathways. This solicitation invites innovative ideas in computing education that involve new approaches and action; produce fundamental, structural change; and go outside of or beyond existing norms and principles. Teams with the necessary knowledge and skill set to execute such projects should include faculty across a range of domains, including education researchers. Teams must have an impact across multiple institutions and include a multi-institutional partnership, with a lead IHE and at least two other IHEs or other organizations.

- The **Pathways** track considers the multiple entry and exit points through two-year colleges as part of effective pathways to computing degrees and/or careers. Specifically, proposers should consider the multiple entry and exit points through two-year colleges:

  - o **Entry points into two-year colleges**: Proposals may explore strategies that support students in the transition from high school into a two-year college, e.g., through bridge programs, short courses, etc.

  - o **The two-year college to four-year college transition**: Proposals might address any of these issues like enrollment caps, poorly defined transfer criteria, and the cultural differences, in an effort to better support students as they prepare for entry into four-year computing programs.

  Teams must include a two-year college as part of the partnership.

- The **Mobilizing** track aims to develop a shared national vision around innovation and inclusion in undergraduate computing education. The Mobilizing track invites proposals to convene diverse sets of CISE stakeholders through a series of workshops modeled after Biology's Vision and Change movement to develop a shared national vision around innovation and inclusion in undergraduate computing education. Mobilizing CUE workshops might address curricular supports in key thematic areas such as revitalizing core courses (data structures, algorithms, systems, etc.); integration of privacy, security, and society; modernizing curricula to incorporate emerging technologies (AI, Quantum); and robust programs at the intersection of computing and other disciplines. Mobilizing CUE workshops could also consider working with industry partners to support the development of a common, scalable educational infrastructure that would ensure equitable access to curricular support across educational institution types.

  Proposals can consider virtual, hybrid, or in-person approaches but must provide a rationale for the expected success of the convenings.

All proposal tracks prioritize the creation of environments that are inclusive, equitable, and supportive of students – to include those from groups typically underrepresented in computing. In addition, innovative programs often offer an opportunity to recruit, welcome, and retain a much broader group of students, thereby benefiting all computing students and, more widely, the computing disciplines. With this in mind, proposals must include specific plans to broaden participation in computing (BPC).

Link to Additional Information: https://new.nsf.gov/funding/opportunities/improving-undergraduate-stem-education-computing/nsf24-553/solicitation

13. Measurement Science and Engineering (MSE) Research Grant Programs, Dept. of Commerce / NIST

NIST's mission is to drive innovation and industrial competitiveness through measurement science and standards by cultivating a culture of belonging that integrates diversity, equity, inclusion, and accessibility in all ways of working. One component of this mission is NIST's ongoing effort to develop a diverse, world-class pool of scientists and engineers to engage in NIST's measurement science and standards research, and to support the development of a general population that understands and appreciates measurement science and standards. NIST also seeks to collaborate with a wide range of organizations, including but not limited to minority-serving institutions such as Historically Black colleges and universities, as well as community colleges, in support of NIST's mission.

NIST is soliciting applications for financial assistance for Fiscal Year 2024 (FY24) within the following NIST grant programs:

1. **Associate Director for Innovation and Industry Services (ADIIS) Grant Program** - The ADIIS Grant Program supports activities that develop, expand, strengthen, or sustain NIST partnership programs within the ADIIS Directorate through measurements, standards, data, industry and technology studies, and technology research and development (R&D). Specifically, the ADIIS Grant Program seeks to support technology innovation and service to American industry in the following fields: bioscience, chemistry, dimensional metrology, electronics, engineering, infrastructure, information technology, manufacturing, manufacturing metrology, materials science and engineering, nanotechnology, neutron research, optics, and physics.

   Financial support may be provided for conferences, workshops, studies, workforce development activities, or technical R&D meetings that are relevant to advancing NIST partnerships pursuant to technology innovation and service to American industry.

   In FY2024, the ADIIS anticipates funding individual projects in the $5,000 - $500,000 per year range and with project performance periods of up to five (5) years.

   Additional information about the ADIIS and ADIIS Programs may be obtained at https://www.nist.gov/adiis. The contact person is Bryana Head and she may be reached at (301) 975-4885 or by e-mail at Bryana.head@nist.gov.

2. **Associate Director for Laboratory Programs (ADLP) Grant Program** - The ADLP Grant Program provides financial assistance to support the conduct of research or a recipient's portion of collaborative research consistent with the NIST mission in areas consistent with the interests of NIST research programs including but not limited to bioscience, communications, advanced manufacturing, artificial intelligence, resilience, quantum information science, etc. Financial support may be provided to organizations to sponsor individual participation in career development and outreach programs in advance of the NIST mission and laboratory priorities. Financial support may be provided for students to attend education and outreach programs, conferences, workshops, or other technical research meetings that are relevant to the mission of the ADLP. Financial support may also be provided to organizations sponsoring conferences, workshops, education and outreach programs, or other technical events that are relevant to the mission of the ADLP.

   In FY 2024, the ADLP anticipates funding individual projects in the $5,000 - $5,000,000 per year range and with project performance periods of up to five (5) years.

   Additional information about the ADLP and ADLP may be obtained at http://www.nist.gov/director/adlp.cfm.

3. **CHIPS Research & Development Office (CRDO) Grant Program -** The CRDO supports advanced microelectronics research to advance the development of semiconductor technologies. The CRDO is focused on

establishing the capacity of inventing, developing, prototyping, and deploying the foundational semiconductor technologies of the future in the United States. The CRDO's activities enable advances and breakthroughs in measurement science, standards, material characterization, instrumentation, testing, and manufacturing capabilities to ensure U.S. competitiveness and leadership in microelectronics.

The CRDO Grant Program provides financial assistance to support the conduct of research or a recipient's portion of collaborative research consistent with the CRDO's mission to support research in the following fields: semiconductor and microelectronics manufacturing; virtualization and automation of semiconductor machinery; chiplets; co-design and simulation; materials and substrates.

In FY 2024, the CRDO anticipates funding individual projects in the $5,000 - $250,000 per year range and with project performance periods of up to (5) years.

Additional information about the CRDO and CRDO may be obtained at https://www.nist.gov/chips/research-and-development-programs. The contact person is Kathryn Mitchell and she may be reached at (202) 579-6633 or by e-mail at kathryn.mitchell@chips.gov.

4. **Communications Technology Laboratory (CTL) Grant Program -** The CTL Grant Program provides financial assistance to support the conduct of research or a recipient's portion of collaborative research consistent with the CTL mission in broad areas that support the accelerated development, testing, and deployment of advanced communications and connected systems technologies in support of both commercial and government applications including core network technologies, high-speed electronics, superconducting electronics, wireless systems metrology, antenna and Radio-Frequency (RF) capabilities, high-speed and high frequency measurement capabilities, advanced optics, quantum communications, network design and optimization, network modeling, next generation core networks, and spectrum sharing; Internet of Things (IoT), cyber-physical systems, trustworthy network control systems, energy systems, smart connected manufacturing, automated and connected vehicles, smart infrastructure, smart cities and communities, and next generation wireless systems; public safety communications; smart infrastructure and manufacturing; and spectrum sensing and testing.

In FY 2024, the CTL anticipates funding individual projects in the $3,000 - $2,500,000 per year range and with project performance periods for up to five (5) years.

Additional information about the CTL and CTL Programs may be obtained at www.nist.gov/ctl. The contact person is Suzanne Griesel. She may be reached at (301) 975-2350 or by e-mail at suzanne.griesel@nist.gov and ctlboc@nist.gov.

5. **Engineering Laboratory (EL) Grant Program** - The EL Grant Program provides financial assistance to support the conduct of research or a recipient's portion of collaborative research consistent with the EL's mission to support research in the following fields: advanced manufacturing; additive manufacturing; robotics; intelligent systems and information systems integration for applications in manufacturing; polymeric materials; heating, ventilation, air conditioning, and refrigeration (HVAC & R) equipment performance; building mechanical systems and controls; building envelope and material performance; alternative energy systems; premise plumbing and water use; indoor air quality and ventilation; and ventilation and applied economics. Financial support may be provided for conferences, workshops, or other technical research meetings that are relevant to the mission of EL.

The EL Grant Program supports the EL mission to promote U.S. innovation and industrial competitiveness by advancing measurement science, standards, and technology for engineered systems in ways that enhance economic security and improve quality of life. Typical funded activities may include measurement science research; development of performance metrics, tools, and methodologies for engineering technologies and applications; and critical technical contributions to standards and codes development.

In FY 2024, the EL anticipates funding individual projects in the $5,000 - $500,000 per year range and with project

performance periods of up to five (5) years.

Additional information about the EL and EL Programs may be obtained at www.nist.gov/el. The contact person is Millie Glick and she may be reached at (301) 975-5962 or by e-mail at millie.glick@nist.gov.

6. **Fire Research (FR) Grant Program** - The FR Grant Program provides financial assistance to support the conduct of research or a recipient's portion of collaborative research in areas of current interest to the Fire Research Division. The Fire Research Division develops, verifies, and utilizes measurements and predictive methods to quantify the behavior of fire and means to reduce the impact of fire on people, property, and the environment. This work involves integration of laboratory measurements, verified methods of prediction, and large-scale fire experiments to demonstrate the use and value of the research products.

In FY 2024, the FR Grant Program anticipates funding individual projects in the $100,000 per year range and with project performance periods of up to three (3) years.

Details on current Division research activities are available at http://www.nist.gov/el/fire_research/index.cfm. The contact person is Dr. Jiann Yang and he may be reached at (301) 975-6662 or by e-mail at jiann.yang@nist.gov.

7. **Information Technology Laboratory (ITL) Grant Program** - The mission of the Information Technology Laboratory (ITL) is to cultivate trust in information technology (IT) and metrology and is accomplished using its world-class measurement and testing facilities and encompassing a wide range of areas of computer science, mathematics, statistics, and systems engineering.

The ITL Grant Program provides financial assistance to support the conduct of research or a recipient's portion of collaborative research consistent with the ITL's missions to support research in the following fields: applied and computational ,mathematics, artificial intelligence, big data, biometrics, cloud computing, cyber-physical systems, cybersecurity, forensic science, health Information technology, high-performance computing, human factors and usability, information access, information processing and understanding, Internet of Things' (IoT), metrology infrastructure for modeling and simulation, privacy engineering, and statistics for metrology.

In FY 2024, the ITL anticipates funding individual projects in the $10,000 - $500,000 per year range and with project performance periods of up to five (5) years.

Additional information about the ITL and ITL Programs may be obtained at www.nist.gov/itl. The contact person is Melissa Banner and she may be reached by e-mail at melissa.banner@nist.gov.

8. **International and Academic Affairs Office (IAAO) Grant Program** - The IAAO Grant Program has been designed to support activities that strengthen and enhance the international metrology community and promote U.S. innovation and industrial competitiveness in support of the NIST mission. NIST seeks to promote the efforts of International Organizations with a metrology mission, Regional Metrology Organizations, National Metrology Institutes and Designated Institutes to bolster the global metrology system and regional metrology cooperation and enhance quality infrastructure. The IAAO Grant Program will support scientific, industrial and/or legal metrology activities and related quality infrastructure endeavors with an emphasis on the Western Hemisphere, Asia Pacific and Africa. Financial support may be provided for conferences, workshops, or other technical meetings (in-person and virtual) that are relevant to the mission of the IAAO.

In FY 2024, the IAAO anticipates funding individual projects in the $50,000 - $200,000 per year range and with project performance periods of up to five (5) years.

Additional information about the IAAO and IAAO Programs may be obtained at www.nist.gov/iaao. The contact person is Claire Saundry and she may be reached at (301) 975-2386 or by e-mail at csaundry@nist.gov.

9. **Material Measurement Laboratory (MML) Grant Program** - The MML supports the NIST mission by serving as the national reference laboratory for measurements in the chemical, biological, and material sciences. The MML is entrusted with developing, maintaining, advancing, and enabling measurement systems in these areas for the nation. The MML's activities range from fundamental and applied research on the composition, structure, and properties of industrial, biological, and environmental materials and processes to the development and dissemination of certified reference materials, critically evaluated data and other programs that help assure measurement quality.

   The MML Grant Program provides financial assistance to support the conduct of research or a recipient's portion of collaborative research in the following fields: materials science and engineering, materials measurement science, biosystems and biomaterials, biomolecular measurements, chemical sciences, and applied chemicals and materials.

   In FY 2024, the MML anticipates funding individual projects in the $5,000 - $12,000,000 per year range and with project performance periods of up to five (5) years.

   The MML Grant Program contact person is Jody Sandel and she may be reached at (303) 497-4695 or by e-mail at jody.sandel@nist.gov.

10. **NIST Center for Neutron Research (NCNR) Grant Program** - The NCNR Grant Program provides financial assistance to support the conduct of research or a recipient's portion of collaborative research involving neutron scattering and the development of innovative technologies that advance the state-of-the-art in neutron research.

    Financial support may be provided for conferences, workshops, or other technical meetings that are relevant to the mission of the NCNR.

    In FY 2024, the NCNR anticipates funding new, individual projects in the $10,000 - $200,000 per year range and with project performance periods of up to five (5) years.

    Additional information about the NCNR and NCNR Programs may be obtained at www.nist.gov/ncnr. The contact person is Dan Neumann and he may be reached at (301) 975-5252 or by e-mail at dan.neumann@nist.gov.

11. **Physical Measurement Laboratory (PML) Grant Program** - The PML Grant Program provides financial assistance to support the conduct of research or a recipient's portion of collaborative research consistent with the PML mission to support research in the broad areas of mechanical metrology, semiconductors, ionizing radiation physics, medical physics, biophysics, neutron physics, atomic physics, optical technology, optoelectronics, electromagnetics, time and frequency, quantum physics, weights and measures, quantum electrical metrology, temperature, pressure, flow, far UV physics, nanotechnology, and metrology with synchrotron radiation.

    In FY 2024, the PML anticipates funding individual projects in the $5,000 – $250,000 per year range and with project performance periods of up to five (5) years.

    Additional information about the PML and PML Programs may be obtained at www.nist.gov/pml. The contact person is Kum Ham and she may be reached at (301) 975-4203 or by e-mail at kum.ham@nist.gov.

12. **Special Programs Office (SPO) Grant Program** - The SPO Grant Program provides financial assistance to support the conduct of research or a recipient's portion of collaborative research consistent with the SPO mission for special programs in broad areas of critical national need and in response to federal mandates that cut across NIST's scientific and technical mission focused laboratory programs such as forensic science research, foundation studies, and standards; greenhouse gas measurements research and standards; and open data programs.

    In FY 2024, the SPO anticipates funding individual projects in the $5,000 - $2,000,000 per year range with project performance periods of up to five (5) years.

Additional information about the SPO and SPO Programs may be obtained at https://www.nist.gov/special-programs-office-spo. The contact person is Darlene Hamilton and she may be reached at (301) 975-2227 or by e-mail at darlene.hamilton@nist.gov.

13. **Standards Coordination Office (SCO) Grant Program** - The SCO Grant Program provides financial assistance to support the broad areas of standards development and conformity assessment activities, coordination activities with the private sector and federal agencies on standards activities and programs, and other standards-related activities. Financial support may be provided for the development of standards-related training materials, publications, policy analysis, studies, and related research and information services. Areas of interest include development of pre-standard documents for critical and emerging technologies. Financial support may be provided to organizations sponsoring conferences, workshops, experiential learning programs, or other technical events that are relevant to the mission of the SCO. Financial support may also be provided to accredited Institutions of Higher Education (IHEs) located in the U.S. or its territories to sponsor and for staff and students to attend experiential learning programs, conferences, workshops, or other standards-related meetings that are relevant to the mission of the SCO.

In FY 2024, the SCO anticipates funding individual projects in the $25,000 - $500,000 per award range and with project performance periods of up to five (5) years.

The contact person is Mary Jo DiBernardo and she may be reached at (301) 975-5503 or by e-mail at maryjo.dibernardo@nist.gov.

Link to Additional Information: https://www.grants.gov/search-results-detail/352807

Forecasted Opportunities

1. Landmarks of American History, NEH

The National Endowment for the Humanities (NEH) Division of Education Programs is accepting applications for the Landmarks of American History and Culture program. The program supports a series of one-week residential, virtual, and combined format workshops across the nation to enhance how K-12 educators and higher education faculty and humanities professionals incorporate place-based approaches to humanities teaching and scholarship.

Link to Additional Information: https://www.grants.gov/search-results-detail/352640

2. Institutes for Higher Education Faculty and K-12 Educators, NEH

The Institutes for Higher Education Faculty and Institutes for K-12 Educators programs are professional development programs that convene higher education faculty or K-12 educators from across the nation to deepen and enrich their understanding of significant topics in the humanities and enrich their capacity for effective scholarship and teaching.

Link to Additional Information: https://www.grants.gov/search-results-detail/352653

3. Humanities Research Centers on Artificial Intelligence, NEH

The Humanities Research Centers on Artificial Intelligence program will create new Centers of scholarly discourse and learning, each one a nexus for collaborative efforts that reach across disciplinary lines to gain a more holistic understanding of AI in the modern world.

Link to Additional Information: https://www.grants.gov/search-results-detail/352707

Proposals Accepted Anytime

1. Division of Environmental Biology, NSF
   https://new.nsf.gov/funding/opportunities/division-environmental-biology-deb/nsf24-543/solicitation

2. Computational and Data-Enabled Science and Engineering in Mathematical and Statistical Sciences, NSF
   https://beta.nsf.gov/funding/opportunities/computational-and-data-enabled-science-and-engineering-mathematical-and

3. Condensed Matter and Materials Theory (CMMT), NSF
   https://www.nsf.gov/pubs/2022/nsf22610/nsf22610.htm#pgm_desc_txt

4. Division of Materials Research: Topical Materials Research Programs (DMR: TMRP), NSF
   https://www.nsf.gov/pubs/2022/nsf22609/nsf22609.htm

5. Research in the Formation of Engineers, NSF
   https://beta.nsf.gov/funding/opportunities/research-formation-engineers-rfe

6. Computer and Information Science and Engineering (CISE): Core Programs, NSF – Small Projects
   https://www.nsf.gov/pubs/2022/nsf22631/nsf22631.htm

7. Manufacturing Systems Integration (MSI), NSF
   https://beta.nsf.gov/funding/opportunities/manufacturing-systems-integration-msi

8. Cybersecurity Innovation for Cyberinfrastructure (CICI), NSF
   https://www.nsf.gov/pubs/2023/nsf23532/nsf23532.htm

9. Division of Molecular and Cellular Biosciences Core Programs (MCB), NSF
   https://new.nsf.gov/funding/opportunities/division-molecular-cellular-biosciences-core/nsf24-539/solicitation

10. Division of Integrative Organismal Systems Core Programs, NSF
    https://www.nsf.gov/pubs/2023/nsf23547/nsf23547.htm

11. Electronics, Photonics and Magnetic Devices (EPMD), NSF
    https://beta.nsf.gov/funding/opportunities/electronics-photonics-magnetic-devices-epmd-0

12. Plant Genome Research Program (PGRP), NSF
    https://www.nsf.gov/pubs/2023/nsf23559/nsf23559.htm#elig

13. Communications, Circuits, and Sensing-Systems (CCSS), NSF
    https://beta.nsf.gov/funding/opportunities/communications-circuits-sensing-systems-ccss-0

14. Fluid Dynamics, NSF
    https://beta.nsf.gov/funding/opportunities/fluid-dynamics-2

15. Biophotonics, NSF
    https://beta.nsf.gov/funding/opportunities/biophotonics-2

16. Environmental Sustainability, NSF
    https://beta.nsf.gov/funding/opportunities/environmental-sustainability-2

17. Particulate and Multiphase Processes, NSF
    https://beta.nsf.gov/funding/opportunities/particulate-multiphase-processes-2

18. Interfacial Engineering, NSF
https://beta.nsf.gov/funding/opportunities/interfacial-engineering-0

19. Nanoscale Interactions, NSF
https://beta.nsf.gov/funding/opportunities/nanoscale-interactions-0

20. Combustion and Fire Systems (CFS), NSF
https://new.nsf.gov/funding/opportunities/combustion-fire-systems-cfs

21. Infrastructure Innovation for Biological Research (Innovation), NSF
https://www.nsf.gov/pubs/2023/nsf23578/nsf23578.htm

22. Infrastructure Capacity for Biological Research (Capacity), NSF
https://www.nsf.gov/pubs/2023/nsf23580/nsf23580.htm

23. Energy, Power, Control, and Networks (EPCN), NSF
https://new.nsf.gov/funding/opportunities/energy-power-control-networks-epcn-0

24. Engineering of Biomedical Systems, NSF
https://new.nsf.gov/funding/opportunities/engineering-biomedical-systems-0

25. Catalysis, NSF
https://new.nsf.gov/funding/opportunities/catalysis-2

26. Process Systems, Reaction Engineering, and Molecular Thermodynamics, NSF
https://new.nsf.gov/funding/opportunities/process-systems-reaction-engineering-molecular-2

27. Disability and Rehabilitation Engineering (DARE), NSF
https://new.nsf.gov/funding/opportunities/disability-rehabilitation-engineering-dare-2

28. Cellular and Biochemical Engineering, NSF
https://new.nsf.gov/funding/opportunities/cellular-biochemical-engineering-0

29. Facility and Instrumentation Request Process (FIRP), NSF
https://www.nsf.gov/pubs/2023/nsf23602/nsf23602.htm

30. Research Infrastructure in the Social and Behavioral Sciences (RISBS), NSF
https://new.nsf.gov/funding/opportunities/research-infrastructure-social-behavioral-sciences

31. Secure and Trustworthy Cyberspace (SaTC), NSF
https://www.nsf.gov/pubs/2024/nsf24504/nsf24504.htm

32. Mind, Machine and Motor Nexus (M3X), NSF
https://new.nsf.gov/funding/opportunities/mind-machine-motor-nexus-m3x

Announcing Previous Important Funding Opportunities

1. Mathematical Sciences Research Institutes, NSF
Deadline: March 14, 2024
https://www.nsf.gov/pubs/2023/nsf23606/nsf23606.htm

2. Future of Semiconductors (FuSe2), NSF
   Deadline: March 14, 2024
   https://www.nsf.gov/pubs/2024/nsf24521/nsf24521.htm

3. Collaborations in Artificial Intelligence and Geosciences (CAIG), NSF
   Deadline: March 15, 2024
   https://www.nsf.gov/pubs/2024/nsf24518/nsf24518.htm

4. Research and Evaluation on Violence Against Women, DOJ/National Institute of Justice
   Deadline: March 15, 2024 (LOI); April 17, 2024 (Grants.gov): May 1, 2024 (JustGrants)
   https://nij.ojp.gov/funding/opportunities/o-nij-2024-171963

5. Fulbright-Hays Group Projects Abroad (GPA) Program, Department of Education
   Deadline: March 18, 2024
   https://www.grants.gov/search-results-detail/351704

6. Distance Education Grants Program for Institutions of Higher Education in Insular Areas, USDA/NIFA
   Deadline: March 20, 2024
   https://www.nifa.usda.gov/grants/funding-opportunities/distance-education-grants-institutions-higher-education-insular-areas

7. Innovation Corps Pilot, NASA
   Deadline: March 29, 2024
   https://nspires.nasaprs.com/external/solicitations/summary!init.do?solId=%7B214C3AE7-5428-D4C1-457A-E00CB2338777%7D&path=open

8. Center of Excellence in Climate Measurements (CECM) Program, NIST
   Deadline: April 1, 2024
   https://www.grants.gov/search-results-detail/352103

9. Higher Education Multicultural Scholars Program, USDA/NIFA
   Deadline: April 1, 2024
   https://www.nifa.usda.gov/grants/funding-opportunities/higher-education-multicultural-scholars-program?utm_content=&utm_medium=email&utm_name=&utm_source=govdelivery&utm_term=

10. STEM Program, Office of Naval Research
    Deadline: April 2, 2024
    https://www.grants.gov/web/grants/view-opportunity.html?oppId=347274

11. Responsible Design, Development, and Deployment of Technologies (ReDDDoT), NSF
    Deadline: April 08, 2024 (Phase 1); April 22, 2024 (Phase 2)
    https://new.nsf.gov/funding/opportunities/responsible-design-development-deployment

12. Research and Evaluation Initiative Solicitation, DOJ/Office of Violence Against Women
    Deadline: April 9, 2024
    https://www.justice.gov/ovw/open-solicitations

13. Algorithms for Threat Detection (ATD), NSF
    Deadline: April 10, 2024
    https://www.nsf.gov/pubs/2024/nsf24526/nsf24526.htm

14. Future Manufacturing (FM), NSF
    Deadline: April 11, 2024
    https://www.nsf.gov/pubs/2024/nsf24525/nsf24525.htm

15. Ensuring Research Integrity – Conferences, DHHS/ORI
    Deadline: April 11, 2024
    https://www.grants.gov/search-results-detail/349334

16. Science, Technology, Engineering and Mathematics (STEM) Program, DoD
    Deadline: April 12, 2024
    https://www.grants.gov/search-results-detail/351854

17. Growing Convergence Research (GCR), NSF
    Deadline: April 12, 2024
    https://www.nsf.gov/pubs/2024/nsf24527/nsf24527.htm

18. Training Program for Federal TRIO Programs, Dept. of Education
    Deadline: April 16, 2024
    https://www.grants.gov/search-results-detail/352330

19. Ideas Lab: Breaking the Low Latency Barrier for Verticals in Next-G Wireless Networks, NSF
    Deadline: April 18, 2024 (Pre-Proposal); September 30, 2024 (FP)
    https://new.nsf.gov/funding/opportunities/ideas-lab-breaking-low-latency-barrier-verticals/nsf24-545/solicitation

20. EPSCoR Research Infrastructure Improvement (RII): EPSCoR Research Fellows, NSF
    Deadline: April 22, 2024
    https://www.nsf.gov/pubs/2024/nsf24528/nsf24528.htm

21. Campus Cyberinfrastructure (CC*), NSF
    Deadline: April 22, 2024
    https://www.nsf.gov/pubs/2024/nsf24530/nsf24530.htm

22. Innovations in Graduate Education (IGE), NSF
    Deadline: April 22, 2024
    https://www.nsf.gov/pubs/2024/nsf24529/nsf24529.htm

23. Partnership to Advance Conservation Science and Practice (PACSP), NSF
    Deadline: April 24, 2024
    https://www.nsf.gov/pubs/2024/nsf24531/nsf24531.htm

24. Civic Innovation Challenge (CIVIC), NSF
    Deadline: May 1, 2024 (Planning); February 10, 2025 (Full Award)
    https://new.nsf.gov/funding/opportunities/civic-innovation-challenge-civic/nsf24-534/solicitation

25. Computer and Information Science and Engineering Research Expansion Program, NSF
    Deadline: May 2, 2024
    https://new.nsf.gov/funding/opportunities/computer-information-science-engineering-research-0/nsf24-536/solicitation#elig

26. Equipment Grants Program, USDA/NIFA
    Deadline: May 3, 2024
    https://www.nifa.usda.gov/grants/funding-opportunities/equipment-grant-program

27. Long-Term Effects of Disasters on Healthcare Systems in Populations with Health Disparities (R01- Clinical Trial Optional), NIH
    Deadline: May 4, 2024 (LOI); June 5, 2024 (FP)
    https://grants.nih.gov/grants/guide/pa-files/PAR-24-109.html

28. Caribbean Partners for Conservation (CPC), USDA / Natural Resources Conservation Services (NRCS)
    Deadline: May 8, 2024
    https://www.grants.gov/search-results-detail/352262

29. ACED: Accelerating Computing-Enabled Scientific Discovery, NSF
    Deadline: Mayo 13, 2024
    https://new.nsf.gov/funding/opportunities/aced-accelerating-computing-enabled-scientific/nsf24-541/solicitation

30. Multi-Messenger Coordination for Windows on the Universe, NSF
    Deadline: May 13, 2024
    https://new.nsf.gov/funding/opportunities/multi-messenger-coordination-windows-universe-mmc/nsf24-542/solicitation

31. Understanding Mechanisms and Outcomes of Trained Immunity (R21 Clinical Trial Not Allowed), NIH
    Deadline: May 15, 2024 (LOI); June 16, 2024 (FP)
    https://grants.nih.gov/grants/guide/pa-files/PAR-24-111.html

32. Sustainable Regional Systems Research Networks (SRS RNs), NSF
    Deadline: May 15, 2024
    https://new.nsf.gov/funding/opportunities/sustainable-regional-systems-research-networks-srs/nsf24-533/solicitation

33. Distributed Array of Small Instruments, NSF
    Deadline: May 15, 2024
    https://new.nsf.gov/funding/opportunities/distributed-array-small-instruments-dasi/nsf24-538/solicitation#pgm_desc_txt

34. Research Initiative for Vaccine and Antibiotic Allergy (UG3/UH3 Clinical Trial Not Allowed), NIH
    Deadline: May 20, 2024 (LOI); June 21, 2024 (FP)
    https://grants.nih.gov/grants/guide/rfa-files/RFA-AI-24-002.html

35. Next Era of Wireless and Spectrum, NSF
    Deadline: May 28, 2024
    https://new.nsf.gov/funding/opportunities/next-era-wireless-spectrum-newspectrum/nsf24-549/solicitation

36. Stephen I. Katz Early-Stage Investigator Research Project Grant (R01 Clinical Trial Not Allowed), NIH
    Deadline: May 29, 2024
    https://grants.nih.gov/grants/guide/pa-files/PAR-24-075.html

37. Coastal Program - FY24, U.S. Fish and Wildlife Service
    Deadline: May 30, 2024
    https://www.grants.gov/web/grants/view-opportunity.html?oppId=350418

38. Assessment of Climate at Institutions (ACt) Award (RC2 - Clinical Trial Not Allowed), NIH
    Deadline: June 3, 2024 (LOI); July 1, 2024 (FP)
    https://grants.nih.gov/grants/guide/pa-files/PAR-24-038.html

39. NINR Areas of Emphasis for Research to Optimize Health and Advance Health Equity (R01 Clinical Trial Optional), NIH
    Deadline: June 5, 2024
    https://grants.nih.gov/grants/guide/pa-files/PAR-22-230.html

40. Modular R01s in Cancer Control and Population Sciences (R01 Clinical Trial Optional), NIH
    Deadline: June 5, 2024
    https://grants.nih.gov/grants/guide/pa-files/PAR-24-122.html

41. BRAIN Initiative: Development and Validation of Novel Tools to Probe Cell-Specific and Circuit-Specific Processes in the Brain (R01 Clinical Trial Not Allowed), NIH
    Deadline: June 7, 2024
    https://grants.nih.gov/grants/guide/rfa-files/RFA-MH-24-280.html

42. Exploratory Grant Award to Promote Workforce Diversity in Basic Cancer Research (R21 Clinical Trial Not Allowed), NIH
    Deadline: June 18, 2024
    https://grants.nih.gov/grants/guide/pa-files/PAR-24-039.html

43. Environmental Education Local Grants Program for Region 2, EPA
    Deadline: July 1, 2024
    https://www.grants.gov/web/grants/view-opportunity.html?oppId=350204

44. Advancing Genomic Medicine Research (R21 Clinical Trial Optional), NIH
    Deadline: July 8, 2024
    https://grants.nih.gov/grants/guide/rfa-files/RFA-HG-23-033.html

45. Mechanistic Studies on Social Behavior in Substance Use Disorder (R01 Clinical Trial Optional), NIH
    Deadline: July 14, 2024 (LOI); August 14, 2024 (FP)
    https://grants.nih.gov/grants/guide/rfa-files/RFA-DA-25-032.html

46. Mechanistic Studies on Social Behavior in Substance Use Disorder (R01 Basic Experimental Studies with Humans (BESH) Required), NIH
    Deadline: July 14, 2024 (LOI); August 14, 2024 (FP)
    https://grants.nih.gov/grants/guide/rfa-files/RFA-DA-25-033.html

47. University Research & Development (R&D) Projects & Capstone Projects, Naval Surface Warfare Center Dahlgren Division
    Deadline: July 17, 2024
    https://www.grants.gov/view-opportunity.html?oppId=349325

48. Developmental Sciences, NSF
    Deadline: July 30, 2024
    https://new.nsf.gov/funding/opportunities/developmental-sciences-ds/nsf24-544/solicitation

49. Measurement Science and Engineering (MSE) Research Grant Programs, National Institute of Standards & Technology (NIST)
    Deadline: Applications will be accepted and considered on a rolling basis as they are received.
    https://www.grants.gov/web/grants/view-opportunity.html?oppId=347512

50. ECosystem for Leading Innovation in Plasma Science and Engineering (ECLIPSE), NSF
    Deadline: August 13, 2024
    https://new.nsf.gov/funding/opportunities/ecosystem-leading-innovation-plasma-science

51. BRAIN Initiative: Research on the Ethical Implications of Advancements in Neurotechnology and Brain Science (R01 Clinical Trial Optional), NIH
    Deadline: September 29, 2024 (LOI); October 11, 2024 (FP)
    https://grants.nih.gov/grants/guide/rfa-files/RFA-MH-25-170.html

52. Advanced Scientific Computing Research (ASCR), Department of Energy
    Deadline: September 30, 2024
    https://science.osti.gov/ascr

53. Biological and Environmental Research (BER), Department of Energy
    Deadline: September 30, 2024
    https://science.osti.gov/ber

54. F24AS00431 FY24 Recovery Implementation, Fish and Wildlife Service
    Deadline: September 30, 2024
    https://www.grants.gov/web/grants/view-opportunity.html?oppId=350612

55. Basic Energy Sciences (BES), Department of Energy
    Deadline: September 30, 2024
    https://science.osti.gov/bes/

56. Fusion Energy Sciences (FES), Department of Energy
    Deadline: September 30, 2024
    https://science.osti.gov/fes/

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